



**Review of Australia's Progress
Towards Implementation of the
Single Window Concept**



**Centre for Customs and Excise Studies
Charles Sturt University**

January 2018

This report has been prepared by the Centre for Customs and Excise Studies, Charles Sturt University, for and on behalf of the AITTIDF.

Key contributors: David Widdowson (Principal Investigator), Bryce Blegen, Geoff Short, Gareth Lewis, Eduardo Garcia-Godos, Mikhail Kashubsky, Heath Baker and Brent Juratowitch.

Acknowledgements

The researchers would like to thank those who provided assistance in completing this study, including representatives of the Australian International Trade and Transport Industry Development Fund, the Customs Brokers and Forwarders Council of Australia Inc., the Export Council of Australia, the Australian Federation of International Forwarders, the Conference of Asia Pacific Express Carriers, Shipping Australia Limited, the World Customs Organization and the World Trade Organization, Department of Foreign Affairs and Trade, Department of Immigration and Border Protection, Department of Agriculture and Water Resources, Department of Infrastructure and Regional Development, Office of Transport Security, Department of Industry, Innovation and Science, Department of Health, Department of Prime Minister and Cabinet, Department of Defence, and the various traders who agreed to be interviewed.

© AITTIDF 2018

No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means electronic, mechanical, photocopying, recording, or otherwise without prior permission.

Contents

Abbreviations and Acronyms	5
1. Executive Summary	9
2. The Research Project	12
2.1. Background	12
2.1.1. Single Window under the TFA.....	12
2.1.2. Recent Developments on Single Window in Australia.....	13
2.2. Project Objectives	14
3. Methodology	15
3.1. Project Phases	15
3.2. Constraints and Project Risks	16
3.3. Project Team	16
4. Conceptual Development and Current Trends	16
4.1. Introduction: Contemporary Border Management	16
4.2. Single Window in Practice: Introduction	18
4.3. Key Factors in Single Window Implementation	20
4.3.1. Legal Framework.....	20
4.3.2. Lead Agency & Operational Model.....	21
4.3.3. Multi-Agency Risk Management.....	21
4.3.4. Data Sharing & Data Protection.....	22
4.3.5. Involvement of Trade Stakeholders.....	22
4.3.6. Financial Aspects.....	23
4.3.7. Authentication and Information Security.....	23
4.3.8. Business Process Re-engineering.....	24
4.3.9. Technical Architecture.....	24
4.3.10. Data & Data Standards.....	25
4.3.11. Change Management & Future-Proofing.....	25
4.4. United Nations & Single Window	25
4.4.1. UNECE, UNESCAP, UN/CEFACT, UNNEXt, & UNCITRAL.....	25
4.4.2. UNCTAD.....	29
4.5. World Customs Organization (WCO)	30

4.6.	World Bank.....	32
4.7.	Inter-American Development Bank	34
4.8.	Single Window Trends.....	35
4.8.1.	Trade Portal.....	35
4.8.2.	Interoperability of Single Window	37
4.8.3.	Port Community System.....	38
4.8.4.	Blockchain	39
5.	Single Window under the TFA	40
5.1.	History & Background	40
5.2.	TFA Provisions on Single Window	41
5.3.	Border Agency Cooperation & Informational Requirements	43
6.	Australia: Antecedents and Current Situation	45
6.1.	Background & History	45
6.2.	KMPG & KGH Research Studies	48
6.3.	Research Studies: an Update	50
6.4.	Current Status of Single Window in Australia	52
7.	SW in the Context of the Australian Government Agenda ...	52
7.1.	Department of Foreign Affairs and Trade	52
7.2.	Department of Immigration and Border Protection	54
7.3.	Department of Agriculture and Water Resources.....	57
7.4.	Department of Infrastructure and Regional Development	63
7.5.	Office of Transport Security.....	65
7.6.	Department of Industry, Innovation and Science	68
7.7.	Department of Health	69
7.7.1.	NICNAS	69
7.7.2.	Therapeutic Goods Administration	72
7.7.3.	Office of Drug Control	73
7.8.	Department of Prime Minister and Cabinet	75
7.9.	Department of Defence.....	75
8.	Industry Priorities and Ambitions.....	77
8.1.	Industry Survey & Workshop.....	77

8.2. Industry Case Studies 79

9. Summary of Findings & Observations..... 80

10. Recommendations 82

11. Annexes 84

Annex 1: Supplementary Information on Blockchain..... 84

Annex 2: Industry Case Studies 88

Abbreviations and Acronyms

AACCI	Arab-Australia Chamber of Commerce and Industry
AACA	Accredited Air Cargo Agent
ABF	Australian Border Force
ABN	Australian Business Number
ABR	Australian Business Register
ACE	Automated Commercial Environment / Air Cargo Examination
ADC	Anti-Dumping Commission
AFIF	Australian Federation of International Forwarders
AGVET	agricultural and veterinary
AICIS	Australian Industrial Chemicals Introduction Scheme
AICS	Australian Inventory of Chemical Substances
AIMS	Automated Import Management System
AITTIDF	Australian International Trade and Transport Industry Development Fund
AMSA	Australian Marine Safety Authority
ANCTF	Australia's National Committee on Trade Facilitation
APVMA	Australian Pesticides and Veterinary Medicines Authority
AQIS	Australian Quarantine Inspection Service
ARGPM	Australian Regulatory Guidelines for Prescription Medicines
ARTG	Australian Register of Therapeutic Goods
ASEAN	Association of South East Asian Nations
ASPI	Australian Strategic Policy Institute
ASYCUDA	Automated System for Customs Data
ATT	Australian Trusted Trader
AUSGEL	Australian General Export Licence
B2G	Business-to-Government
BICON	Biosecurity Import Conditions System
CAPEC	Conference of Asia Pacific Express Carriers
CBFCA	Customs Brokers and Forwarders Council of Australia
CBM	Coordinated Border Management
CCES	Centre for Customs and Excise Studies, Charles Sturt University
ChAFTA	China-Australia Free Trade Agreement
COAG	Council of Australian Governments
COLS	Cargo Online Lodgement System

CSU	Charles Sturt University
CTD	Common Technical Document
CTO	Container Terminal Operator
DAWR	Department of Agriculture and Water Resources
DEC	Defence Export Controls
DECS	Defence Export Controls System
DFAT	Department of Foreign Affairs and Trade
DHA	Department of Home Affairs
DIBP	Department of Immigration and Border Protection
DIIS	Department of Industry, Innovation and Science
DIRD	Department of Infrastructure and Regional Development
DOD	Department of Defence
DOH	Department of Health
DPMC	Department of Prime Minister and Cabinet
DSGL	Defence and Strategic Goods List
EACE	Enhanced Air Cargo Examination
ECA	Export Council of Australia
EDI	Electronic Data Interface
EDN	Export Declaration Number
EMA	European Medicines Agency
EOI	Expression of Interest
ESCAS	Export Supply Chain Assurance System
EXDOC	Export Documentation System
FAL Convention	Convention on Facilitation of International Maritime Traffic
FIATA	International Federation of Freight Forwarders
FID	Full Import Declaration
FOB	Free On Board
FSANZ	Food Standards Australia New Zealand
FTA	Free Trade Agreement
G2G	Government-to-Government
GFP	Global Facilitation Partnership for Transportation and Trade
GOVCBR	Government Cross Border Regulatory Message
GST	Goods and Services Tax
I2ES	International Import and Export Authorization System
IBRD	International Bank for Reconstruction and Development

ICC	International Chamber of Commerce
ICH	International Conference on Harmonisation of Technical Requirements for Registration of Pharmaceuticals for Human Use
ICS	Integrated Cargo System
ICSID	International Centre for Settlement of Investment Disputes
ICT	information and communication technology
IDA	International Development Association
IDB	Inter-American Development Bank
IDCSW	Inter-Departmental Committee on Single Window
IDN	Import Declaration Number
IEEE	Institute of Electrical and Electronic Engineers
IFC	International Finance Corporation
IFIS	Imported Food Inspection Scheme
IMO	International Maritime Organization
IOP	Interoperability System for the Pacific Alliance Single Windows
IPPC	International Plant Protection Convention
IT	information technology
ITC	International Trade Centre
IUCLID	International Uniform Chemical Information Database
KCS	Known Consignor Scheme
MARS	Marine Arrivals Reporting System
LDC	least-developed country
MIGA	Multilateral Investment Guarantee Agency
MNC	multinational corporation
NICNAS	National Industrial Chemicals Notification and Assessment Scheme
NCTF	National Committee on Trade Facilitation
ODC	Office of Drug Control
OECD	Organisation for Economic Co-operation and Development
OGA	Other Government Agency
OSAS	Online Sanctions Administration System
OTS	Office of Transport Security
PCS	Port Community System
RACA	Registered Air Cargo Agent
SAC	Self-Assessed Clearance
SAFE Framework	Framework of Standards to Secure and Facilitate Global Trade

SAL	Shipping Australia Ltd
SEW	Single Electronic Window
SLA	Service Level Agreement
SME	small to medium enterprise
SWIF	Single Window Implementation Framework
SWWG	Single Window Working Group
TFA	WTO Trade Facilitation Agreement
TFIWG	Trade Facilitation Initiatives Working Group
TFSP	Trade Facilitation Support Program
TGA	Therapeutic Goods Administration
TMI	Trade Modernisation Initiative
TSA	Transportation Security Administration
UCR	Universal Consignment Reference
UN	United Nations
UN/CEFACT	United Nations Centre for Trade Facilitation and Electronic Business
UN/EDIFACT	United Nations Rules for Electronic Data Interchange for Administration, Commerce and Transport
UNCITRAL	United Nations Commission on International Trade Law
UNCTAD	United Nations Conference on Trade and Development
UNECE	United Nations Economic Commission for Europe
UNESCAP	United Nations Economic and Social Commission for Asia and the Pacific
UNNEXT	United Nations Network of Experts for Paperless Trade and Transport in Asia and the Pacific
UNODC	United Nations Office on Drugs and Crime
UNSC	United Nations Security Council
UNTDDED	United Nations Trade Data Element Directory
US	United States
WCO	World Customs Organization
WCODM	WCO Data Model
WEF	World Economic Forum
WTO	World Trade Organization

1. Executive Summary

The Australian International Trade and Transport Industry Development Fund (AITTIDF) commissioned Charles Sturt University's Centre for Customs and Excise Studies (CCES) to review progress toward Australia's implementation of the Single Window concept and assess the current level of ambition within Australian industry for a national Single Window.

In its most widely accepted international definition, a Single Window is a facility that allows 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 According to the World Customs Organization (WCO), it examines regulatory controls through the eyes of the trader and views all interactions between trade and regulatory agencies without regard for the internal divisions within government.²

The reference points for the review are the relevant prescriptions in the World Trade Organization (WTO) Trade Facilitation Agreement (TFA), as well as best practices for Single Window implementation. The latter include those identified in the 2016 *International Single Window Study* commissioned by the Department of Immigration and Border Protection (DIBP) and authored by KGH, the KPMG *Domestic Single Window Study* that was commissioned by the Australian Business Register (ABR), and the standards and best practices promulgated by recognised international authorities on this subject, such as the United Nations Economic Commission for Europe (UNECE) and the WCO.

Australia has a large number of regulatory requirements impacting cross-border goods movements, directly or indirectly administered and enforced by more than 40 agencies at the Commonwealth level, as well as others at the state level. With limited exceptions, the linkages between the various agencies are procedural in nature and not automated. On this basis, Australia would appear to provide a good foundation for efficiency gains in cross-border trade via a Single Window. While this may be the ultimate goal, the study suggests that Australia may be better served by first laying the groundwork for such a system by focusing on improvements in cooperation among agencies, transparency, and other mandatory TFA provisions.

Those agencies involved in trade-related activities are generally supportive of the idea of Single Window in principle, but in some cases, agency support comes with a clear caveat that the Single Window must not diminish the efficiency of their current systems (i.e. effectiveness in discharging their public policy charters and the quality and timeliness of the delivery of outcomes to their private sector stakeholders). This was particularly apparent in cases where the agency concerned considered their systems to represent best practice, which was unlikely to be matched, at least in the short- to medium-term, by a whole-of-government Single Window.

The Department of Foreign Affairs and Trade (DFAT), DIBP and other agencies have conducted research into a Single Window and have an ongoing internal government dialogue on the topic. At this stage, however, it does not yet seem that a compelling business case or financing model has been built, nor has a determination been made as to what an Australian Single Window for trade should be, in terms of scope and coverage. Indeed, there does not yet appear to be an "in principle"

determination to proceed with a Single Window and, certainly, no advanced thinking on the technical design or structure of a Single Window has been developed.

Australian industry is already, in a very real sense, viewing trade in the same way that the TFA views trade - not agency by agency, but from a whole-of-government perspective, and not broken down into discrete processes governed by various uncoordinated pieces of legislation, but rather from the perspective of an end-to-end facilitated supply chain. The interviewees almost consistently recognise that things could be better in terms of inter-agency cooperation and automation than they are today. The level of familiarity of these businesses with Single Window concepts may not have been high, but what they would like to see in terms of international trade facilitation appears to be very compatible with a Single Window implementation, especially one which incorporates a trade informational portal and provides a path to interoperability with the systems of Australia's trading partners.

Indeed, the private sector (and to some extent government) is poorly informed on Single Window concepts, and while industry is aware of government intentions to develop a Single Window, to date it has had little input into the process. However, the research indicates that industry is generally less concerned about *what* a Single Window may or may not include, than *how* it will be implemented and managed. The exception to this is the desire for some form of trade information portal that will help industry identify the myriad regulatory (and other) matters associated with international trade.

This review does not identify specific functionality requirements of an Australian Single Window for trade, but it does make suggestions as to factors to be considered in its implementation, and identifies private sector motivations to be leveraged in support of it. In this regard, it develops the foundation for an industry position for presentation to Government on a roadmap for progressing an effective Australian Single Window for trade which appropriately reflects the needs and aspirations of the private sector. The report makes the following recommendations:

Recommendation 1: That, prior to committing to implementation of a national Single Window, Australia should first lay the groundwork for such a system by focusing on improvements in cooperation among agencies, transparency, and other mandatory provisions of the WTO Trade Facilitation Agreement.

Recommendation 2: That, regardless of whether implementation of a Single Window proceeds, a trade information portal be developed to support industry in identifying the myriad regulatory (and other) matters associated with international trade.

Recommendation 3: That, if a decision to implement a national Single Window is made, a series of options should be proposed ranging from a relatively modest approach built around process improvements to a much more aspirational – and expensive – cross-border interoperable Single Window application that incorporates all domestic import/export data needs and also incorporates integrated risk assessment. The choice of options should explicitly incorporate funding models, and any model chosen must be sustainable for the long term and incorporate measures to adequately address inevitable ongoing regulatory and technological change.

Recommendation 4: That, if a decision to implement a national Single Window is made, it should take account of the existing information technology (IT) landscape across the agencies with border

responsibilities, and, to the extent possible, incorporate and build upon effective solutions and processes which currently exist in an evolutionary manner.

Recommendation 5: That, if a decision to implement a national Single Window is made, the initial proposals on scope, timeline, budget, and system architecture should be made public at an early stage, and that industry input be sought through a forum such as the National Committee on Trade Facilitation in a manner that enables industry opinion to influence the way forward.

Recommendation 6: That, if a decision to implement a national Single Window is made, it should incorporate international best practice, and be in conformity with relevant international standards to enable interoperability and comply with the TFA requirements on border agency cooperation.

2. The Research Project

The research project is a review of Australia's progress towards implementation of the Single Window concept. It is designed to develop an industry position for presentation to Government on the development of an effective Australian Single Window for trade; one which appropriately reflects the needs and aspirations of the private sector and is aligned with Australia's obligations under the TFA and international best practice.

The research has been funded by the Australian International Trade and Transport Industry Development Fund (AITTIDF), with the support of the Australian Federation of International Forwarders (AFIF), the Customs Brokers and Forwarders Council of Australia Inc. (CBFCA), the Export Council of Australia (ECA), the Conference of Asia Pacific Express Carriers (CAPEC) and Shipping Australia Ltd (SAL). The research has been undertaken by the Centre for Customs and Excise Studies (CCES) at Charles Sturt University (CSU) with assistance provided by the ECA in gathering input from industry via case studies.

This report provides an analysis of the current Australian import and export process environment, as administered by DIBP and other key government agencies involved in permitting or reporting in relation to cross-border cargo³ in the context of:

- The extent to which this environment involves IT-enabled processes, including existing plans to increase the use of IT and automation, within and across Australian government agencies as well as in facilitating trade via enhancements in communication and interaction with private sector actors,
- The compatibility of the existing and planned roll-out of these processes with the Single Window concept as incorporated in the WTO TFA and international standards, and
- Single Window-related needs and potential benefits identified by private sector stakeholders.

The reference points for the review are the relevant prescriptions in the TFA, as well as best practices for Single Window implementation, including those identified in the 2016 *International Single Window Study*, commissioned by DIBP and authored by KGH,⁴ KPMG's *Domestic Single Window Study*, commissioned by the ABR,⁵ and the standards and best practices promulgated by recognized international authorities on this subject, such as UNECE and the WCO.

The analysis provides a foundation for an industry position for AITTIDF to present to Government on the development of an effective Australian Single Window for trade that appropriately reflects the requirements of the private sector.

2.1. Background

2.1.1. Single Window under the TFA

In December 2013, World Trade Organization (WTO) members concluded negotiations on the TFA at the Bali Ministerial Conference, as part of a wider 'Bali Package'. On 27 November 2014, WTO members adopted a Protocol of Amendment to insert the new Agreement into Annex 1A of the WTO Agreement. On 23 February 2017, the TFA entered into force upon two-thirds, i.e. 110 of the WTO's 164 members, having completed their domestic ratification process.

The TFA contains provisions for expediting the cross-border movement, release and clearance of goods, including goods in transit. This includes provisions directly and indirectly relating to government provision of a Single Window enabling traders to efficiently interact with government in operations related to the importation, exportation, or transit of goods. It includes prescriptions relating to the optimisation of interaction and exchange of information between government and traders as well as among government agencies with responsibilities touching on the border within the country (and potentially beyond).

As is expanded upon in Section 5 below, the TFA strongly encourages countries to establish a Single Window for trade. In this regard, Section I, Article 10(4) states:

Members shall endeavour to establish or maintain a Single Window, enabling traders to submit documentation and/or data requirements for importation, exportation, or transit of goods through a single entry point to the participating authorities or agencies. After the examination by the participating authorities or agencies of the documentation and/or data, the results shall be notified to the applicants through the Single Window in a timely manner.

Many countries already claim to have or to be implementing a Single Window for trade including the United States (US), Canada, New Zealand, Mexico, Singapore and South Korea. Implementing such a facility in Australia could serve to improve trade facilitation by simplifying border procedures and formalities, saving government and business time and money. Singapore's Single Window was created in 1989 and brings together more than 35 border agencies providing significant productivity and monetary gains.⁶

2.1.2. Recent Developments on Single Window in Australia

A complete discussion of antecedents to Single Window in the Australian context is incorporated below in Section 6.1. The topic of Single Window gained its current prominence in discussion at the inaugural meeting of the ANCTF in April 2015, at which some government officials stated that Australia has already introduced a Single Window (and therefore 'ticked the TFA box') by reference to the Integrated Cargo System (ICS). From time to time, the ICS has been so described in documents such as CEO Instruments of Approval:⁷

The ICS provides a Single Window for a variety of stakeholders in the supply chain to report core import and export data which is used for risk assessment and clearance purposes.

ICS has also been cited favourably by the World Bank as the "Australian Single Window."⁸ Yet, in 2016 DIBP and the ABR program, in collaboration with DFAT, commissioned the *Domestic Single Window Study* and the *International Single Window Study* referenced above, both laying the groundwork for an eventual Australian Single Window. The studies were conducted by KPMG and KGH respectively. A summary of their scope and results is included below (see Section 6.2), and this report incorporates and builds upon their findings.

Also in contrast to past government claims that Australia already had a Single Window, in his July, 2016 address to the Australian Strategic Policy Institute (ASPI),⁹ the Australian Border Force (ABF) Commissioner stated:

We are very keen to ensure that we capitalise on our Trusted Trader Programme by creating a Single Window. Traders who want to trade with Australia currently have to go through any number of portals to engage with any number of departments at the Commonwealth and state level. What we want to do is create a Single Window—one touch point, one Single identifier, one Single set of requirements for any trader to deal with Australia.

This suggests that a Single Window has not yet been achieved, and certainly not by way of the ICS, which supports earlier comments by DIBP:

Achieving a whole-of-government international trade Single Window by facilitating the issuing of government import/export permits through the ICS would require substantial investment due to the diversity and complexity of government permits processes.¹⁰

As explored in more detail in this review, there remains an opportunity for industry to influence the development and implementation of a Single Window and to ensure that it is both aligned with TFA principles and that their requirements are taken into account as policy decision-makers progress this important issue.

2.2. Project Objectives

Specific project objectives included:

- Engaging with stakeholders to confirm and supplement the findings of the earlier KGH and KPMG reports
- Updating evidence and data relating to the current state of the Australian regulatory environment for internationally traded goods, including those existing and planned IT-enabled projects which could be categorized as relevant to the Single Window context
- Identifying industry expectations in relation to the above initiatives.

This report encapsulates the findings relating to the above objectives and touches upon the following:

1. The current regulatory and procedural pain points experienced by Australian traders and service providers engaged in exporting and importing goods.
2. The potential key factors crucial to success in the introduction of a leading-edge trade Single Window.
3. Public and private sector initiatives that may impact Australia's Single Window environment.
4. The potential benefits of expanding the Single Window border clearance concept to incorporate an aligned informational portal for importers and exporters.
5. The recommendations, results and learnings from multilateral agencies and other countries that have developed a Single Window for trade, which could be applicable to Australia.
6. Recommendations for government with respect to implementing a Single Window, including in terms of aligning the project to relevant TFA principles.

3. Methodology

3.1. Project Phases

The following research methodology was adopted:

- Stage 1: Prepare Inception Report
- Stage 2: Undertake desk-based research to identify and document the current status of the cross-border processes relating to Single Window; and assess current progress on the Government's Single Window agenda, including any updating and augmenting resulting from the KPMG and KGH report findings.
- Stage 3: Undertake desk-based research and targeted interviews to identify and document private sector requests and priorities in relation to the establishment and operation of Single Windows and associated paperless trading initiatives (note: this built on the work undertaken by KGH, against the backdrop of TFA-relevant prescriptions and international standards).
- Stage 4: Through a series of surveys and targeted workshops and interviews, research and document:
- Regulatory and procedural pain points experienced by Australian businesses directly and indirectly engaged in trading internationally
 - The level of interest in, and demand for, incorporating trade processes into a Single Window environment
 - Potential benefits that may accrue to both business and government from a more coordinated and cohesive approach to incorporating trade processes into a Single Window environment
 - Potential benefits of expanding the Single Window concept to incorporate an aligned information portal for importers and exporters.
- These elements of the study built on the work undertaken by KPMG and included workshops specifically designed to obtain input from importers, exporters and service providers, including members of the following key industry associations:
- Customs Brokers and Forwarders Council of Australia Inc.
 - Australian Federation of International Forwarders
 - Export Council of Australia
 - Conference of Asia Pacific Express Carriers
 - Shipping Australia Ltd
- Stage 5: Conduct one-on-one interviews with Australian companies engaged in international trade to develop a series of case studies on the burden of compliance with border regulatory demands associated with trading internationally.
- Stage 6: Analyse findings from points 1-5 above.
- Stage 7: Based on the analysis, develop proposals that reflect the needs and ambitions of Australia's international trading community in relation to a Single Window; and prepare Draft Report.
- Stage 8: Deliver Final Report following discussion of Draft with key industry associations.
- Stage 9: Follow up as required through discussions/presentations to government officials.

3.2. Constraints and Project Risks

The project required the cooperation and support of relevant sectors of the industry in order to ensure meaningful feedback. It also required a degree of cooperation from interviewees, including in government. The difficulty in obtaining adequate and timely industry input was recognised from the outset (and indeed was highlighted in the KPMG study).

A potential constraint on the implementation of research recommendations is a lack of political will on the part of the Government to adopt its recommendations. In this regard it is not possible to predict the appetite of the authorities to adopt the recommendations at this point in time. However, given Australia's formal commitment to support WTO trade initiatives, and its formal acceptance of the TFA, now in force, it is reasonable to expect that appropriate recommendations will be acted upon. It should also be noted that maintenance of an efficient Single Window environment is increasingly seen as an important trade facilitation measure, and preferential trade arrangements currently under negotiation may ultimately include Single Window-related obligations.

Strategies adopted to mitigate these risks involved the appointment of project team members with strong industry and government advisory experience relating to Single Window and trade automation projects at the international level, good contacts with relevant multilateral and Australian government agencies, and the agreed support of key Australian industry organisations.

3.3. Project Team

The project team was comprised of David Widdowson (principal investigator), Bryce Blegen, Geoff Short, Gareth Lewis, Eduardo Garcia-Godos, Mikhail Kashubsky, Brent Juratowitch, Heath Baker of ECA and a number of research assistants.

4. Conceptual Development and Current Trends

4.1. Introduction: Contemporary Border Management

Control of national borders is one of the primary means for a country to assert its sovereignty, and the border has historically also been a substantial source of revenue for government:

The spaces of borders, corresponding to their map lines, are marked by ports of entry and exit. It is here where cross-border transactions of people and goods are processed through the exercise of immigration and customs authorities. Typically, the scope of these border inspection authorities is most broad regardless of legal system. Sovereignty asserts itself aggressively at the border threshold to determine who and what has the right or privilege of entrance (inbound) and exit (outbound).¹¹

Virtually all countries have historically assigned control of the border to a powerful agency, traditionally referred to in most countries as Customs, with broad powers to admit (often after payment of duties and other taxes) or deny access to the domestic commerce of the country, or to allow domestic exporters to access markets abroad, generally after a process involving declarations and inspections or other controls.

In Australia, this role falls to DIBP and its operational arm, the ABF - for ease of reference, DIBP and ABF will be referred to collectively as Customs for the remainder of this section of the report. In addition to revenue collection, Customs is generally empowered to exclude prohibited items, and

enforce national standards, safety and quality requirements, and licensing requirements for restricted items.

Over the last several decades, as duty rates have fallen and international trade has grown, the focus of Customs in enforcing domestic safety and conformity requirements at the border has increased. At the same time, many such requirements are primarily administered by other government agencies (OGAs) with broad responsibility throughout the Australian domestic market - not just at the border - primarily at the Commonwealth, but sometimes at the State government level.

With the implementation of free trade agreements and the growth of multi-country supply chains, more and more previously domestically manufactured and regulated products have been replaced with foreign-made equivalents, and a number of scandals related to imported food and product safety have received widespread publicity. In addition, with the 9/11 incidents in the U.S., and similar incidents across the globe, these already-existing concerns about import product safety have been augmented by concerns of potential terrorist activity. As a result, existing regulatory requirements have been tightened and pressure has grown for closer attention to imports. Concerns with foreign trader practices in relation to such things as endangered species, child labour, prison labour, intellectual property, etc., are also leading to new social policy-based requirements which require documented compliance as a pre-requisite to import clearance.

All of this should be seen against a background of Australian agencies now confronted with a world's worth of foreign suppliers of imported products, and expectations among the Australian export community of being able to meet the ever-increasing regulatory requirements of Australia's trading partners. This leads to Customs now having to increasingly enforce complex requirements of multiple agencies at the border, often without appropriate training or clear guidance. As a consequence, in today's partly automated, partly paper-based border clearance processes, Customs is often forced to make a practical decision on whether to detain a shipment, or to clear the goods, notify the responsible agency, and let the trader resolve the issue post-entry with the agency concerned. In cases where the agency has failed to provide clear instructions or cooperate in enforcing its requirements (whether through lack of resources or other reasons), Customs must decide whether the best option is to keep trade moving, and leave the responsible agency to deal with any issues post-transaction.

All of the above is accompanied by increased use of information technology in the border process, with paper-based declaration and certification requirements transitioning to a virtual environment. Where, previously, a properly completed form (or collection of forms and certificates, with the necessary endorsements) accompanying a shipment was required to obtain a release from Customs, now one or more electronic data submissions by properly authorised parties in one or more systems in the appropriate sequence may be required.

The increased use of IT and automation in the border clearance process is reflected in parallel (and often uncoordinated) efforts by agencies to automate their respective product registration, evaluation and certification efforts relating to safety requirements. Often, these activities also need to conform to international standards or the particular requirements of Australia's trading partners. Another dimension in the border challenge is the need for accurate and timely statistical data collected by both Customs and other border agencies involved in cross-border trade. That information is of vital importance to governments when evaluating national economic performance

and setting policy, and to industry when analysing commercial trends. Modern IT has revolutionised the capacity of effectively collecting, efficiently analysing, and disseminating such data.

Whilst the agency with responsibility for regulatory control over specific products being brought into the domestic market, or produced domestically for export will generally retain its primary authority, it may be unable to staff the border with its own officers, thereby requiring it to collaborate with Customs in enforcing its priorities at the border. Customs is generally also at the centre of the data exchanges needed to ensure compliance and enable the release of goods, and has the final authority in granting that release. From a legal perspective, goods should not be allowed into domestic commerce (or, in the case of exports, not allowed to depart) unless the requisite border requirements of Customs and the regulatory mandates of the relevant OGA (or OGAs) are met.

From a practical perspective, Customs and the other agencies need to cooperate with each other in (increasingly IT-enabled and automated) border processes to facilitate the flow of goods. Failure to do so can lead to disconnects and delays, and impede border clearance and thereby international trade, harming both the national economy and consumers. The Single Window concept, with its emphasis upon collaboration and sharing of information, offers a vision to enhance these processes, and in a way which can result in facilitation of cross-border trade.

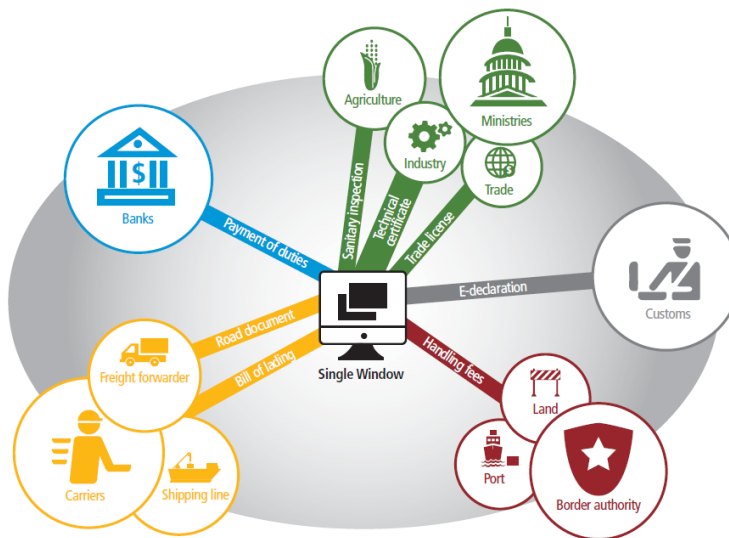
4.2. Single Window in Practice: Introduction

It is within this contemporary border management framework that the idea of “Single Window” needs to be viewed: it embraces a set of precepts and building blocks designed to allow government to enhance its ability to enforce legal requirements administered by multiple agencies via the use of integrated processes, while at the same time enabling the rapid and efficient flow of legitimate trade across the border. Put simply, in its most-widely accepted international definition, a Single Window is:

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.¹²

Single Window is often thought of as an IT-focused concept, one which is quite complex and which has an impact across a wide range of stakeholders. While Single Windows almost always involve IT, as the definition above and the discussion of the TFA’s provisions (see Section 5 below) indicate, IT is not itself the goal - rather, the goal is to create a platform for effective collaboration at the border between Customs, OGAs and business - enhanced and enabled by IT and an appropriate level of automation, to facilitate the movement of goods across borders. Advanced Single Window concepts can connect a range of actors involved in cross-border traffic, as can be seen in Figure 1.¹³

Figure 1: Actors and Data Exchanges in a Single Window Environment



Source: World Bank, (n.d.) *Doing Business Data*, available at: <http://www.doingbusiness.org/data>.

The hard work of building a successful Single Window requires a step-by-step approach, combining organisational management, forward policy planning, consideration of (and resolution of) legal issues, the definition of operational and communication frameworks, business process re-engineering along with IT architectural decisions, data harmonisation, messaging standards, procurement, project implementation management, and—very importantly—change management (both during the project and after the system is up and running). Inadequate attention to any of these factors can lead to project delays, cost overruns, and even project failure—and the crucial problems are often unrelated to IT issues (although they can be exacerbated by them).

At this point, it is important to point out that the Single Window concept is very much focused on the regulatory process as operationally implemented in a synchronised manner with goods movements across the border—the lodging of declarations and other documents for incoming or outgoing consignments at the point of import or export, and the process of getting those consignments cleared and released to move on to their destination (for import, within the domestic market, and for export, overseas).

A Single Window is therefore both transactional and operational in nature and many of its functions are time-critical. It comes into play once consignments are on the move, or just prior to that point, and is essential to enabling them to complete their international journey. This presents a clear distinction between a Single Window and the more advance-planning focused “Trade Portal” or “Trade Informational Portal” facility discussed in Section 4.8.1 below. As indicated in that section, while significant potential synergies exist between a Single Window and a trade portal, they are different concepts and should not be conflated. To avoid any confusion, the discussion in the following sections (up until Section 4.8.1) is restricted exclusively to Single Window, and not to trade portal concepts.¹⁴

4.3. Key Factors in Single Window Implementation

Two decades of experience in the implementation of Single Windows around the globe have demonstrated a number of clearly identifiable factors and planning steps which need to be properly handled in order for implementation to be successful. Single Windows, if successfully implemented, have been lauded as a key part of what the World Bank calls a national digitalisation strategy, and can have a significant positive effect on economic growth.¹⁵ Nevertheless, Single Window implementations around the world also provide more than a few cautionary tales, with a recent report noting:

It is not uncommon to see, in one country, several entities claiming to be Single Windows, acting in a coherent framework, notably when this stems from a strategic approach by the authorities. But most often, Single Window initiatives are implemented in an uncoordinated manner, against a background of hidden rivalries among administrations, with totally unproductive results for the country. At the level of architectures, power relations may also impose sometimes cumbersome, costly and ineffective operational architectures.¹⁶

In an effort to avoid such difficulties in Australia, Sections 4.4 through 4.8 provide an overview of multilateral institutions which have issued recommendations and guidance in this area (note also the recommendations from the KGH study in Section 6.2 below), and also provide insight into a number of issues that have begun to impact plans for new Single Windows. To introduce this discussion, we will draw attention to some key factors to be kept in mind from the outset of any Single Window project.

4.3.1. Legal Framework

National laws governing cross-border trade, including those relating to the authority of Customs or other agency vested with the primary role of controlling national borders, tend to be aligned with border processes (such as importing goods) and, in part due to the coordinating work of the WCO over the past 50+ years, and the provisions of the Revised Kyoto Convention, exhibit broad similarities from country to country. But the enabling legislation for other agencies, which often have an operational focus that is primarily domestic in nature, is often widely divergent and, even where it grants border-related authority or imposes mandates enforceable at the border, it rarely does so in a way which is aligned with customs law or customs operations. Also, to the extent agency legislation mandates information collection, permitting, or the like, it will often do so in a way which is not entirely compatible with modern IT processes.

This being the case, there is a major legal component essential to the preparation of any Single Window project, which is why multilateral agencies such as UNECE,¹⁷ United Nations Commission on International Trade Law (UNCITRAL),¹⁸ United Nations Centre for Trade Facilitation and Electronic Business (UN/CEFACT)¹⁹ and the WCO²⁰ (see discussion in Sections 4.4 and following below) have devoted significant time and resources to setting out comprehensive guidance, recommendations, and explanatory information for parties to consider when embarking upon a Single Window,²¹ and the legal aspects feature prominently.

A Single Window requires a firm foundation in the national legal framework. For example, depending upon the solution chosen, Australia's customs legislation might need significant amendment to provide Customs with the authority to be the lead agency, and to require Customs as

well as OGAs to collaborate as they progress initiatives to incorporate their trade-facing activities into the Single Window. Similarly, legislation giving power to OGAs to inspect goods, collect data and so on will need to be amended to reference the new data-sharing system and the division of responsibilities between Customs and the OGAs. Alternatively, it is possible that a Single Window might obtain its legal authority courtesy of a purpose-built enabling Act, overriding previous conflicting legislation at the agency level.

4.3.2. Lead Agency & Operational Model

A Single Window project can only succeed in a national environment where agencies with border responsibilities have established a collaborative working relationship.²² As a practical matter, a Single Window facility needs to have a lead agency (or an agency that represents the government in a public-private partnership) in charge of its planning and implementation, and to take the primary role in running the system once it is operational. Typically, this agency is Customs (or the nearest national equivalent with border control responsibility).

As noted above, appointment of a lead agency requires a grant of authority, preferably legislation-based, which is binding on the lead agency as well as all OGAs participating in the Single Window. This grant of authority may be accompanied by a mandate from the highest level (e.g. the Prime Minister's office) that agencies with responsibilities touching on goods crossing the national borders must utilise the Single Window as the primary means of gathering information, monitoring compliance with regulatory requirements, and collaborating with the lead agency on decisions and actions relating to cross-border movements of goods within their scope of jurisdiction.

Once a grant of authority and a mandate for OGA participation are in place, the lead agency must establish a close working relationship among all agencies which will participate in the Single Window, from the earliest possible planning stage. Close and effective inter-agency communication is essential for the success of any Single Window, and crucial aspects such as risk management, data harmonisation, and business process re-engineering can only be accomplished with a shared vision and close (and continuing) collaboration.

Once a Single Window is operational, the need for close collaboration continues, as the involved agencies will need to handle any emerging issues (for example, system availability/functionality issues) in tandem, and manage the inevitable changes in regulatory requirements, technology, and the trading environment over time. The Single Window needs to incorporate principles of good IT governance, including clear and effective rules (authorisations, access criteria, monitoring, data protection, archiving), and be capable of significant scalability.

4.3.3. Multi-Agency Risk Management

One of the most significant (and underestimated) challenges in creating a Single Window is harmonising the risk management strategies of the agencies involved in a way that enhances trade facilitation. Risk management is a topic to which much attention has been paid in the customs and border management context, and multilateral agencies such as the WCO, United Nations (UN) agencies, the World Bank and others have devoted considerable resources to devising, documenting and promoting best practices,²³ with many countries having adopted them. But the topic of risk management of internationally traded goods is not always in focus in those agencies with a domestic mandate (e.g. safety- or consumer-protection-related requirements).

In most countries, Customs has moved away from a “stop and search” methodology applied to all cross-border consignments to much more sophisticated risk management techniques involving advance information, intelligence gathering, profiling and targeting, statistical sampling, compliance-based risk profiling, ‘trusted trader’ schemes and the like. Where possible, risk analysis is applied by use of advance information about the goods, the trader and the supply-chain, so that the risk can be mitigated by making a determination about the regulatory treatment of the goods prior to them reaching the border (or even before they depart the point of origin).

In less critical situations, goods can be allowed to cross the border with the condition that post-entry modifications (e.g. labelling) are used to bring the goods into conformity with national standards before being brought into domestic commerce. Whereas national customs authorities utilise these methods as a matter of course, OGAs may not be familiar with them, or may be hesitant to use them, and indeed may simply maintain that their mandate requires 100% inspection of certain items and an assurance that they are completely in conformity with relevant standards before they physically enter the country. While there are circumstances where this may be justified, such measures impede trade and alternatives may be available to lessen the impact on commerce.

In a multi-agency Single Window environment, it is essential that all such issues be discussed and risk management agreed between Customs and all OGAs prior to implementation within the Single Window environment. It is essential that each agency communicate the risk management measures it intends the Single Window (as managed by the lead agency) to perform, including detail on timing and format of information to be collected, whether risk assessment and risk management decisions should be dealt with directly by operation of the Single Window (e.g. through automation or instructions to border personnel), or after obtaining OGA input.

It is also important to document the parameters relating to whether consignments associated with risk factors can be released only after such have been mitigated through physical or documentary inspection, or whether post-entry treatments are available. In most cases, the lead agency will need to enter into an agreement with each OGA, documenting these matters, with periodic updates to take account of operational and regulatory changes.

4.3.4. Data Sharing & Data Protection

The sharing of sensitive data for risk assessment and other purposes within a Single Window raises issues of privacy, commercial confidentiality and data protection. Some of that can be managed legislatively (for example, an electronic transactions Act or similar) but many of the detailed procedural issues may be managed through memoranda of understanding or other written agreements between agencies guaranteeing the interests of all stakeholders involved in the Single Window. Data protection issues can be difficult even in a domestic inter-agency Single Window context, but they become exponentially more so in an international environment, as when the Single Window moves into an interoperable environment.

4.3.5. Involvement of Trade Stakeholders

While the initial decision to pursue a national Single Window strategy lies with the government, in most cases the decision will be predicated on either direct input from trade stakeholders or economic analyses which bolster the case for a return on investment (accruing to government, but in line with TFA precepts, also generating gains in trade efficiency for trade stakeholders in general).

Any new government system will have an impact on trader processes, and the impact needs to be clearly understood and reflected in the overall project cost-benefit and regulatory impact analysis. Some impacts may not be clear to government, and this makes involvement of key trade stakeholders in the feasibility study phase of the project essential.

Once the project is launched, involvement of trade stakeholders in all project phases continues to be essential, to ensure that the Single Window captures both the relevant aspects of trade processes and opportunities for process improvements during the design phase, but also to generate a sense of collaboration and ownership among traders, which can greatly ease system implementation and the inevitable issues which may arise when the system goes live. As noted above, once the system is operational, continuing dialogue with trade stakeholders is essential to identify further improvements in the Single Window, and to effectively tackle new regulatory developments as they arise.

4.3.6. Financial Aspects

As with any major IT system project, financing is essential from the outset. As noted in the KGH study, Single Window financing models vary greatly from country to country, and run the gamut from systems wholly financed by the government (whether motivated by anticipated economic growth, cost savings, improved revenue collection, or all of the above), to systems financed, at least in part, by user fees, to systems which involve public-private partnership models designed to pay for themselves or even to generate operational revenue. Project planning and implementation options will be closely dependent on the model chosen, so it is essential that the financing model is clear before the project begins.

Another financial aspect (also touched upon in the KGH study) relates to the method by which operational revenues - which can include duties, Goods and Services Tax (GST), and fees for permits, registrations, etc. -- are collected and distributed (e.g. to the involved agencies, with or without revenue sharing to the agency running the Single Window). From a trader perspective, the Single Window as a “one-stop-shop” for payment can be a benefit in itself, especially if the Single Window model allows for periodic payment via a consolidated bill. As with the Single Window project financing model, this operational model needs to be determined earlier rather than later as it is a central issue in discussions between agencies and the trade, and also has an impact on system design.

4.3.7. Authentication and Information Security

Another issue surrounds authentication (confirming the accuracy and trustworthiness of information) which is a general legal concern with automated exchanges of information, but which assumes particular importance in a Single Window environment given the number of parties dealing with sensitive information, the complex legislative environment which may prevail, and the variety of trader/agency, agency/agency, and even (in the case of an interoperable Single Window) government/ government exchanges. All parties must agree the means by which they can be identified, the integrity of exchanges and how issues such as identity assurance and non-repudiation (i.e. that the sender of data is really the sender, and cannot later deny the fact) should be managed.

With today’s omnipresent cyber-security risks, a Single Window system represents a tempting target. The system processes vast amounts of data, much of it commercially confidential and related

to privacy concerns, and the system is essential to the smooth flow of trade across the national border. If the system is down, goods may not be easily cleared. If critical commercial data is hacked, the national economy may suffer as a result. This means that the Single Window needs to be designed, from inception, with such security concerns in mind, and it must be resilient enough to remain in service despite attacks, and be capable of having its defences regularly updated.

4.3.8. Business Process Re-engineering

International best practice and the written advice of international agencies such as the UN²⁴ and the WCO²⁵ recommend that a change initiative as broad and complex as Single Window ought to be accompanied by a business process review and, where appropriate, a business process re-engineering exercise. It is a long-established fact of automation that computerising poor or outmoded procedures will not lead to the optimum outcome – rather, it can entrench those outmoded and inefficient procedures.

Taking paper documents and simply exchanging them for electronic document images is a common mistake, and rarely leads to trade facilitation. The greatly increased collaboration amongst border regulatory agencies and their new methods for dealing with industry provide a potentially rich basis for a successful review and changes to existing procedures, and it is indeed in this area that the TFA provides a strong motivation for Single Window implementation.

4.3.9. Technical Architecture

Single Window embraces a variety of technical issues, but within that descriptor, there are several categories of overarching importance. One of these is the system architecture. Will the Single Window be a discrete system, monolithic in nature, or will it be a networked gateway behind which exist an array of interlinked systems? Today's technology landscape presents many options, and these must be analysed and agreed amongst all parties to the Single Window at project inception, and options will be partly dependent upon the legal issues mentioned above.

Decisions as to whether the system should be interoperable with external systems such as banks, trade portals and port communities must also be taken and incorporated into the architecture. The policy decision about lead agency and whether the Single Window should be managed by an external provider are further influences on the final system design.

The IT security aspects mentioned previously also play a significant role in Single Window architecture decisions, as do operational fail-safes such as parallel processing, multiple instances, system cutover capabilities, and the like. Data back-up methods need to ensure that the system can be brought back on-line with all data re-constituted in a very short time-frame, and fallback procedures need to be known and operationally tested in the event of system downtime.

Experience has shown that without an appropriate operational security architecture in place, the Single Window can easily become a "single point of failure", instantly being transformed from a tool of trade facilitation to an impenetrable obstacle to cross-border trade. This aspect of Single Window design is very much a moving target (indeed, the standard-setting agencies such as UN/CEFACT are only now working to update their recommendations²⁶ to address these topics), and the system must be designed not only to meet the challenges of today's environment, but also for evolving future threats—and the budget for the system needs to be set accordingly.

4.3.10. Data & Data Standards

The messaging modalities for the Single Window need to be defined, and be as flexible and modern as possible, along with the data structure, both in the context of trade-facing data transmission as well as inter-agency data sharing and access. If it is felt that a common data platform is best, then a data harmonisation exercise will be needed (also a key factor in business process re-engineering) and that, in turn, means that a base data standard must be chosen.

Once again, UN/CEFACT²⁷ and the WCO²⁸ recommend data harmonisation as an essential accompaniment to Single Window using the United Nations Trade Data Element Directory (UNTDDED) and using the WCO Data Model (WCODM) as the standard, at least to the extent that the national Single Window's internal data structure is harmonised with and can easily interact with the WCODM. Note that the WCODM, as an international standard, will generally not itself be able to handle all needs in a national Single Window, and therefore often is supplemented and extended to meet country needs.

4.3.11. Change Management & Future-Proofing

A Single Window is never “done”; changes to the national regulatory environment, the international trading environment and technological capabilities are constant, and any Single Window system (and the system's operational management and budget) must be set up to stay on top of this change resiliently, without being overwhelmed.

While historically, government IT systems were typically built on a customised model characterised as “state-of-the-art” at a particular time, all governments have learned that this model leads to (expensive) legacy systems which need to either be updated and expanded (often very expensive) or phased out and completely replaced. Today's technology options are much more flexible and interoperable than in the past, and any Single Window system needs to take advantage of this by a “future-proof” architecture which embraces continual change, but incrementally without the need to replace the entire existing system.

4.4. United Nations & Single Window

In this section, we discuss the United Nation's involvement in Single Window, including the initiatives of the United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP), UNECE, UN/CEFACT, the United Nations Network of Experts for Paperless Trade and Transport in Asia and the Pacific (UNNExT), UNCITRAL and UNCTAD.

4.4.1. UNECE, UNESCAP, UN/CEFACT, UNNExT, & UNCITRAL

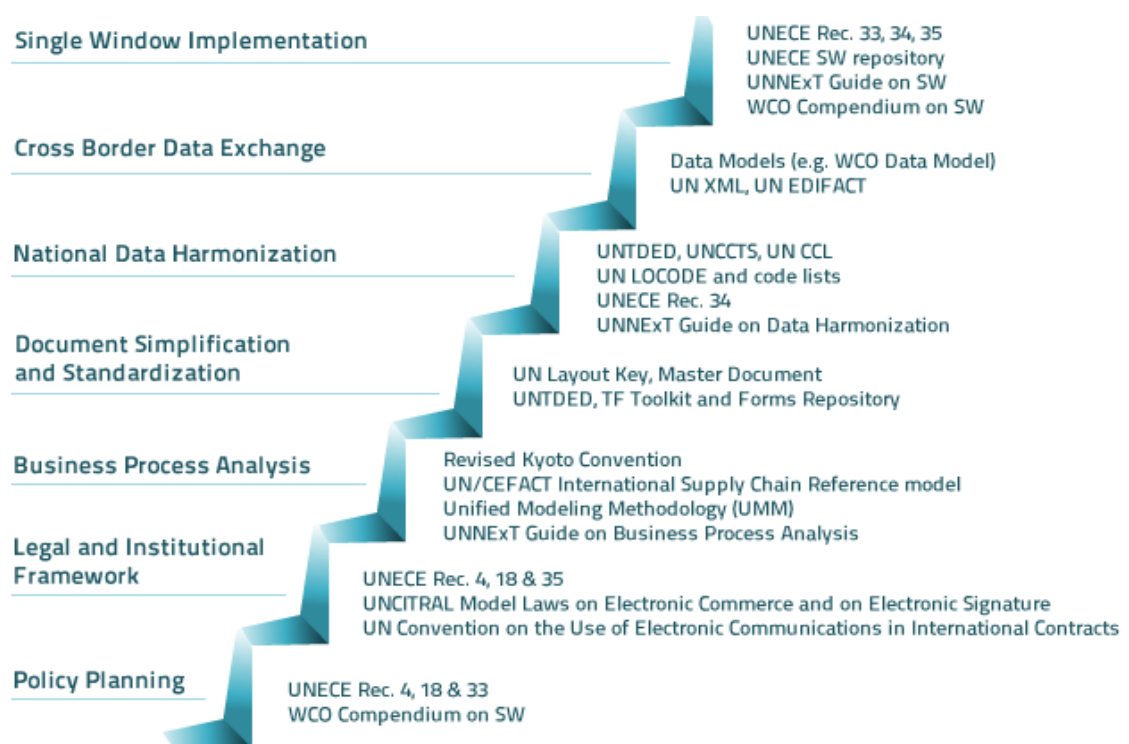
The UNECE has become a focal point for trade facilitation recommendations and electronic business standards, as has UNESCAP.

The UN/CEFACT was established as the vehicle to provide cooperation and develop standards in these areas. Over the past several decades, all of these agencies have produced a large corpus of international standards, recommendations, case studies and guidance documents in the field of trade facilitation, many of them focused on or directly relevant to Single Window, with periodic updates to reflect technological developments. Although these instruments are not binding, they have been adopted as *de facto* international standards as they collect and organise the know-how that has been gathered in the diverse experiences of countries implementing Single Window. The

work of UNCITRAL, which focuses on international trade law standards, provides further guidance on some of the underlying legal building blocks for Single Window.

UNECE provides a comprehensive on-line Trade Facilitation Implementation Guide²⁹, which has a dedicated section on Single Window³⁰ that is constantly updated with the latest information related to a number of topics (one current project is related to using Blockchain technology as a trade facilitation enabler in the Single Window context),³¹ including links to a very extensive set of materials related to Single Window Implementation, selected ones are referenced below in a graphic which depicts, by topic, key steps in the creation of a Single Window (see Figure 2).

Figure 2: UN Toolset for Single Window: Step-by-Step



Source: UNECE, (2012) *Trade Facilitation Implementation Guide: Single Window Implementation*, available at: <http://tfig.unece.org/contents/single-window-implementation.htm>.

These materials provide an essential starting point for any Single Window project, and even though many are focused on Single Window implementation in the developing country context, a very high percentage of their content is entirely pertinent to developed countries, including Australia.

The UNNExT was established by UNESCAP and UNECE in 2009, to gather “a community of knowledge and practice for experts from developing countries and transition economies from Asia and the Pacific, involved in the implementation of electronic trade systems and trade facilitation”.³² Its scope is primarily in the promotion of Single Window and paperless trade, through training, knowledge sharing and the application of international standards, such as those developed by the UN/CEFACT, the WCO and other relevant organisations.

UNNEXT has produced a number of Single Window guidance documents, which are quite practical in focus and provide a rich source of insights into Single Window, including the comprehensive “Single Window Implementation Toolkit”³³ embracing tools, guides and development activities covering key aspects of the topic, including business processes and data harmonisation, and the legal framework. Below is a brief description of the principal UNNEXT publications related to Single Window.

Single Window Planning and Implementation Guide

The Single Window Planning and Implementation Guide³⁴ provides an architecture-based approach referred to as a Single Window Implementation Framework (SWIF) consistent with recommendations delivered by the UN/CEFACT. It contains guidelines for policymakers and those who are responsible for technology-enabled Single Window development projects. This guide not only outlines the different stages of a Single Window implementation in proposing a “to be” model, from inception until the “lessons learned” stage of the project, but also provides recommendations to address managerial issues that may affect the planning, the development and operation of Single Window systems, including their cross-border interoperability.

Electronic Single Window Legal Issues: A Capacity-Building Guide

This guide³⁵ deals with legal issues related to the development and operation of a Single Window, considering the challenges posed by the increasing prevalence of electronic transactions. It is intended to give policymakers a broad understanding of the Single Window environment and the intersection between technology and regulation, e-government and underlying legal systems, as well as organisational issues. Another relevant contribution is that the Guide encourages countries to adopt international standards (including technical messaging standards) to ensure, as far as possible, that the Single Window is interoperable, from a legal perspective, with other national and regional Single Window facilities.

The Guide expands with more detail some of the recommendations considered in UN/CEFACT Recommendation No 35, a document that is taken by this Guide as reference for (i) Data Protection and Information Security; and (ii) Data Privacy, as well as other matters not considered by UN/CEFACT.

Data Harmonisation and Modelling Guide for Single Window Environment

Data harmonisation is a primary step and prerequisite for Single Window implementation and it is critical for Single Window interoperability. This Guide³⁶ provides an exhaustive analysis on the benefits of data harmonisation to enable efficient and predictable transactions based on trade facilitation principles and international standards, and it delivers a step-by-step approach to help government officials and the trading community in their plans to capture, assess and define data and to structure electronic documents.

Business Process Analysis Guide to Simplify Trade Procedures

Business Process Analysis is the first step and thus, a major component, towards implementation of a Single Window. This tool³⁷ presents a methodology to identify, describe and analyse the existing “as-is” business processes including activities and tasks involved in international transactions within the framework of the Buy-Ship-Pay, International Supply Chain Model. It delivers practical steps (and

detailed examples) and activities, from scoping the business process analysis project, planning its implementation and collecting relevant data, to analysing the captured data to identify bottlenecks and developing recommendations for improvement.

UNECE has worked over several decades to develop a series of interlinked recommendations which represent a global consensus of best practice on cross-border trade facilitation, including a number of formal Recommendations directly relevant to Single Window. These include:

Recommendation N° 18 UN/CEFACT (in force since 2002)³⁸ *“Facilitation Measures related to International Trade Procedures”*. This presents the documentary building blocks of the cross-border trading environment and establishes a set of criteria to facilitate international commercial transactions to achieve predictable, transparent and non-discriminatory proceedings in terms of timeframe for response and proportionality of regulatory costs, and indeed can be seen as a precursor to the TFA on many of these topics. It contains principles and specific provisions related to trade measures, international payments, official controls and transport related measures.

Recommendation N° 33 UN/CEFACT (2004)³⁹ *“Establishing a Single Window”* specifically refers to the establishment of Single Window, defining what it is, its objective, utility and recommendations for its implementation. This recommendation has been extensively referenced.

The Recommendation considers that implementation of a Single Window – *in itself* - is a trade facilitative action, since in many countries import, export and transit of goods procedures involve multiple administrative authorities, requiring the submission of large volumes of duplicative information and documentation. As per this Recommendation, a Single Window does not necessarily imply the use of information technologies and communications. However, as mentioned before, the use of information technologies and communications has become indispensable to increase the potential of this facilitation mechanism.

The scope of this recommendation embraces Business-to-Government (B2G) and Government-to-Government (G2G) transactions, allowing payment of fees and duties, and includes guidelines in decision-making and implementation processes to be followed when developing a Single Window project (such as vision, stakeholders’ involvement, scope, costs and risk). Additionally, it identifies key factors for the success of a Single Window, including political support, authority and resources (financial and human) and a suitable legal framework based on recommendations and international standards.

Recommendation 33 is currently slated for an extensive update to take account of technological changes, lessons learned, and to incorporate cross-references to topics handled in later Recommendations (including those noted below).

Recommendation N° 34 UN/CEFACT (2011, updated in 2013): *Simplification and Standardization of Data for International Trade*.⁴⁰ This document is designed to complement Recommendation No 33 and addresses aspects of simplification and standardisation of data for an adequate and efficient exchange and lodgement of declarations in the context of a Single Window. It encourages policy makers to simplify data by removing redundant or duplicate information for

international transport or trade. Also, it aims to enhance the coordination among border agencies, and formulates a methodology to simplify procedures and data based on four steps: (i) preparing a data inventory; (ii) data definitions; (iii) analysis; and (iv) data harmonisation.

The recommendation promotes the use of international standards to boost cross-border information exchange in a Single Window environment. When analysing information, legal issues such as the authority of the agency for requiring information or data are addressed.

Recommendation N° 35 UN/CEFACT (2011, updated in 2013): *Legal Framework for a Single Window*.⁴¹ As noted above, an adequate legal framework is a major foundational element in designing a Single Window. This is especially the case when the Single Window incorporates the electronic transmission of information and filing, where rules of submission and processing of information must be foreseen in areas such as authentication of messages, data storage, data sharing and electronic signatures. This recommendation is applicable to any Single Window system based on the Recommendation 33 standards. It gathers UN/CEFACT best practices including transparency and the security of the trade data exchanged. It focuses on the need to provide legal underpinnings to different aspects of the procedures that will be incorporated into the platform reducing the risks of legal issues for agencies participating in Single Window, as well as traders.

Recommendation N° 36 UN/CEFACT (2017): *Single Window Interoperability*.⁴² Interoperability in this context is the ability of two or more systems or system components to exchange and use information across borders without additional effort on the part of the trader,⁴³ thereby eliminating duplicative data submissions and reducing cost. The purpose of this Recommendation is to highlight the issues and deliver alternatives for the establishment of Single Window interoperability, whether the national Single Window facility is operated by the public or the private sector, and to provide examples of best practices. It is closely linked to Recommendations No 33 on Single Window implementation, No 34 on data simplification and standardisation, and No 35 on enabling the legal environment for Single Window implementation.⁴⁴

This Recommendation focuses on identifying the conditions and limitations for implementing the interoperability of Single Window. To this end, it includes analytical considerations related to business needs, technical aspects of interoperability, legal environment and governance.

4.4.2. UNCTAD

UNCTAD has extensive experience in various areas of international trade, trade facilitation and transport/logistics.⁴⁵ The work of UNCTAD in trade facilitation has taken a variety of forms, including research, policy analysis and data collection. In the area of capacity building, UNCTAD has assisted developing countries to boost trade facilitation reforms and develop technical tools to facilitating trade such as the Automated System for Customs Data (ASYCUDA).⁴⁶

With the beginning of the WTO trade facilitation agreement negotiations, support to developing countries in these negotiations became another major focus of UNCTAD through analytical and policy publications, training and awareness-raising events, as well as the implementation of technical assistance and capacity-building activities.

Today, the UNCTAD trade facilitation package includes support for implementation of the TFA, along with broader, more ambitious transport, transit and trade facilitation reforms.

UNCTAD support is provided in close collaboration with other international organisations, including the International Trade Centre (ITC) and UNECE. Specific UNCTAD products regarding trade facilitation and related issues cover trade portals, customs automation, port training, shipping connectivity, non-tariff measures and transit.

The ASYCUDA system mentioned above is a government electronic customs data exchange developed with sponsorship by the UN and available to UN member countries without license fees. As such, it is currently implemented primarily in developing countries. In its earlier stages, it was clearly not a Single Window system, although in its latest version, known as ASYCUDA World, the system has been customised in such countries as Jordan, Sri Lanka, Bangladesh and Barbados to provide varying degrees of Single Window functionality. In particular, the customs goods declaration module has proven to be relatively simple to redevelop into a data input facility for OGA licences, certificates or permits, allowing Customs and OGA functions to be managed in a single application.

UNCTAD has recently gone beyond ASYCUDA to offer UN members access to guidance, technical assistance, and software tools to build Single Windows and related applications.⁴⁷

4.5. World Customs Organization (WCO)

The WCO is an intergovernmental organisation, based in Brussels and established in 1952 through an international convention termed the Customs Cooperation Council, that represents the global customs community in a wide range of operational and policy issues. It creates and manages a number of conventions, standards and other instruments aimed at improving the efficiency and effectiveness of border regulation in general and customs procedures in particular.

As a key part of its charter, the WCO works with other government and industry organisations such as the WTO, UN/CEFACT, the International Federation of Freight Forwarders (FIATA) and the International Chamber of Commerce (ICC). This engagement with private and public sector stakeholders is a critical aspect of the WCO's mission. All trade facilitation technical forums at the WCO are typified by extensive representation of the many industry and intergovernmental agencies with an interest in the topics under discussion. The representatives are able to contribute to discussion equally and, as a result, help shape the outcome.

Since 2003, the WCO has been actively engaged in the promotion of the Single Window concept in conjunction with UN/CEFACT, including the two-volume Single Window Compendium⁴⁸ that presents the legal, technical, human resource and procedural aspects of Single Window from the perspective of executive management and operational staff in Customs.

A key differentiation in the WCO literature on Single Window is the use of the word "intelligent" to define how the WCO envisages a Single Window system operating. It uses the term "intelligent" because the WCO suggests that any effective Single Window is to be more than a data switch/gateway to other regulatory agency environments or a web portal. It must provide shared services to all stakeholders, and ideally incorporate integrated risk management that satisfies the requirements of all agencies involved as Single Window stakeholders, provide for the appropriate

sharing of data, and represent an integrated duty/tax/fee management system that would include the banking sector.

Finally, the WCO is of the view that a best-practice system must achieve a combined transactional response to the trader, one which either signals a release or alerts the trader to any impediment to release by providing adequate information on the governmental requirements (whether from Customs or any other agency involved in the Single Window) to enable the trader to resolve them.

The WCO's Single Window Compendium has been augmented over the years with the addition of several explanatory and related documents such as the IT Guide for Executives,⁴⁹ which provides invaluable advice for Customs or other agency heads contemplating large-scale IT projects such as a Single Window system, and the 2015 "Supplement Edition to the WCO SW Compendium",⁵⁰ which reads in part:

The Single Window concept examines regulatory controls through the eyes of the trader and views all interactions between trade and regulatory agencies without regard for the internal divisions within government.⁵¹

Another important related document is the WCO Single Window Data Harmonization guidelines,⁵² which are much the same as UN/CEFACT Recommendation 34 on the same topic, but were tabled and accepted in February 2007, before the UN standard. This is of significance because in recommending data harmonisation, the WCO is in a position to offer the WCODM as the base template against which countries can create a standardised national data set.

The WCODM was aimed originally at creating an international standard for data and message structures required for the various exchanges between Customs and trade in order to manage the various border regulatory requirements. With the Single Window concept in mind, the WCODM was extensively upgraded from 2005 to include the data and messaging for a wide range of other border regulatory requirements such as human health, food standards, animal and plant quarantine. Apart from data structures, the WCODM includes the United Nations Rules for Electronic Data Interchange for Administration, Commerce and Transport (UN/EDIFACT) and xml standard message templates, business process and information models and a wide range of international and national code sets. Through the creation of the Government Cross Border Regulatory (GOVCBR) UN/EDIFACT message in 2009 based on data model structures, the WCO championed the first standard message set able to manage information exchanges in a Single Window environment, and it continues to work in this area.

Other WCO initiatives that have strong links with Single Window include the CBM concept and the Framework of Standards to Secure and Facilitate Global Trade (the SAFE Framework).

CBM is a term used in WCO parlance to describe closer collaboration between border agencies for a wide range of potential activities – it is a concept that is widely promulgated by the World Bank, UN agencies and the WTO, sometimes under slightly different terminology such as "Collaborative Border Management" but with the same intent. Single Window can be seen as a part of this wider interagency cooperation. CBM is an important component of the WCO's vision for the 21st Century and it incorporates a very broad range of procedural, administrative, legal, physical, data and

technical issues such as joint controls, shared facilities and joint intelligence and targeting centres, and it is closely linked to prescriptions in the TFA (see Section 5 below).

The SAFE Framework was the collective customs response to the terrorist actions of 9/11 and its core concept is awareness of the importance of seeing the international trade supply chain as an interconnected series of actions and exchanges of information at a significant number of physical locations amongst a wide array of private- and public-sector actors, many of whom would be unaware of each other and the role(s) they play. It was tabled in 2005, built around the twin pillars of customs-to-customs collaboration and customs-to-business partnership and a series of so-called standards aimed at the better security and facilitation of the international trade supply chain.

Since the development of SAFE Framework in 2005, the importance of cooperation between Customs and other Government/Inter-Government agencies involved in the border regulation of international trade and supply chain security has increased. In recognition of this, WCO introduced tools and instruments such as CBM and the WCO DM, but also a new third pillar to SAFE Framework with a number of standards covering Customs to other government agency cooperation. This provides further context to the importance and relevance of Single Window to the strategic thinking of the WCO.

Understandably, as an international organisation focused on the priorities of its members, the world's customs and border management agencies, the WCO argues that any national Single Window system should logically fall within the responsibility of the national customs administration. The core argument is that only Customs has the statutory and procedural responsibility for all import/export transactions whereas the other border agencies, individually, have only small sub-sets of that responsibility.

There is acknowledgement in WCO literature that coordination might be handled by another government authority. Indeed some countries, notably Costa Rica, have created a new agency⁵³ specifically to design, implement and run their Single Window, thereby largely solving the issue of inter-agency rivalry from the outset, but it still maintains that Customs must have a pivotal role in the design and running of an operational system.

4.6. World Bank

The World Bank Group was established in 1944 and is headquartered in Washington, DC and comprises more than 10,000 employees in more than 120 offices worldwide representing 189 member countries. Through its member countries, it provides low-interest loans, zero to low-interest credits, and grants to developing countries that support investments in education, health, public administration, infrastructure, financial and private sector development, agriculture, and environmental and natural resource management through policy advice, research and analysis, technical assistance and capacity development.

The World Bank Group is comprised of five closely associated institutions: the International Bank for Reconstruction and Development (IBRD) and the International Development Association (IDA), which together form the World Bank; the International Finance Corporation (IFC); the Multilateral Investment Guarantee Agency (MIGA); and the International Centre for Settlement of Investment Disputes (ICSID).

The IFC is focused on the private sector in developing countries. It provides development solutions customised to meet clients' needs and overcome financial, operational, and political challenges. Modernisation of Customs and Border Management is an IFC priority and it has invested in more than 120 projects with significant components addressing customs issues over the past 20 years.

In recent years, the portfolio has expanded to include trade facilitation work with other border management agencies involved in processing and clearing goods. Increasingly, this work has involved the application of information and communication technology (ICT) to support increased transparency and efficiency and to support collaborative border management approaches. Work on this agenda is spread across the entire World Bank Group and in all regions with customs and trade facilitation specialists providing advice and project implementation support as well as practical toolkits and knowledge products. The group is also engaged heavily in supporting implementation of the new TFA and the adoption of other international standards.

Within the IFC ambit, Single Window developments are under the responsibility of the Trade Facilitation and Border Management Practice team while most of the preparation work is done under the Trade Facilitation Support Program (TFSP). National Single Window build is financed through World Bank lending programs. In particular, these programs provide support for countries seeking assistance in aligning their trade practices with the TFA.

The World Bank literature states that improved movement of goods and services between producers and consumers makes supply chains more efficient and reduces costs, red tape, and bottlenecks and applies diagnostic tools to help client governments understand where reforms and investments will have the greatest impact. The World Bank is a founding member of the Global Facilitation Partnership for Transportation and Trade (GFP), and the programs mentioned above work in close partnership with key international and regional organisations within that framework⁵⁴ to support trade facilitation and promote the use of relevant international standards wherever possible.

Within that scope, the World Bank programs strongly support collaborative border management (i.e. the World Bank term for 'coordinated border management' in the WCO context) and Single Window systems as a practical means of delivering CBM. Many Single Window projects in Africa, South and South East Asia, Latin America and the Caribbean have been backed by financial and other World Bank support.

The World Bank suggests that there is no country that it has reviewed where a Single Window solution has been implemented according to all of the recommended international guidelines. Even for developed countries, it suggests that Single Windows tend to be something done almost exclusively for the benefit of the regulatory authorities, rather than the industry focus seen in the UN/CEFACT, WTO and similar material.

Finally, the World Bank supports exhaustive legal review and other preparatory actions for any government considering a Single Window. The following is a list of steps the World Bank recommended be taken as part of any Single Window; this serves as a checklist for a potential Australian Single Window in its early design stage.

1. Legal Action Plan
 - applying findings from the initial legal review, plan for implementing any required legal changes required to support specific features of the new functional model
2. Business Process Model
 - Business Process Analysis of current operation for all government agencies involved in trade (“as is” model) including catalogue of data elements
 - Re-engineered Business Process Model (“to be” model) including new harmonised data model across all stakeholders
3. Functional and Technical Architecture
 - Functional Specifications of National Single Window system
 - Technical Platform for operation of National Single Window system (e.g. topology, hardware, communications, software platform, performance requirements, non-functional specifications)
4. Operational and Governance Model
 - Operational Model, i.e. functions to be performed by different parties (e.g. system operation, facilities’ management, Help Desk, maintenance and support, etc.)
 - Service Level Agreements (SLA) governing the relationships between parties
 - Ownership, Oversight, Management and Reporting structure
5. Capacity Building Plan
 - HR Requirements
 - Training Needs Analysis
 - Training Plan
6. Fee Model
 - Estimate of operational costs based on Functional and Technical Architecture, Operational Model and analysis of transaction volumes
 - Recommended fee structure for operational cost recovery
 - Recommended model for sharing revenue collected through the SW and due to different agencies
7. Risk Management Model
 - Recommendations for leveraging shared data structures and facilities for the purpose of applying risk management principles across all government agencies with a view to better targeting of risks and incremental degrees of trade facilitation
8. Change Management
 - Change Plan
 - Communication strategy (i.e. how to communicate change to all stakeholders)
9. Procurement Plan
 - Procurement Specifications for products and services to be procured (e.g. software, hardware, infrastructure, outsourced services if any, etc.)
 - Draft RFP’s
10. Implementation Plan
 - Revised and detailed Project Plan for the Implementation Phase of the Project
 - Risk Register to allow monitoring of threats that may jeopardise the project and mitigation strategies.

4.7. Inter-American Development Bank

The Inter-American Development Bank (IDB) is an international financial organisation that funds development projects and promotes regional trade integration and development in Latin America

and the Caribbean.⁵⁵ Regarding trade, IDB has been actively promoting growth and competitiveness, by encouraging export promotion, open trade policies and improvement of the investment climate. Through its Customs and Trade Integration Office, it became a major supporter of trade facilitation projects including large-scale Single Window initiatives.

More than half of the countries in the region⁵⁶ have a Single Window system in place with different levels of development; for instance, Single Window systems in Colombia, Costa Rica and Chile have been reported as best practices according to the World Economic Forum (WEF) and the World Bank.⁵⁷ Also, Single Window models may be very diverse; in some cases the platform is administered by the Ministry of Finance, Trade, the Customs authority or the Central Bank; others are administered by the private sector or supported by public private partnerships. In some countries, use is not mandatory (i.e. Chile-Sicex) or they are service-fee free.

IDB has supported 13 major Single Window projects in the region,⁵⁸ some of the largest include Peru (VUCE 2.0 Project) and Argentina. This organisation also sponsored the Interamerican Foreign Trade Single Window Network (Red de Ventanillas Únicas de Comercio Exterior), so-called RedVuce,⁵⁹ which is a regional dialogue and collaborative forum encompassing stakeholders engaged in the design, development and administration of electronic Single Windows of country members in Latin America.

This forum is intended to encourage cooperation and collaborative practices among Single Windows in the region in compliance with international standards and best practices such as those provided by the WCO, UN/CEFACT and WTO. RedVuce's workplan has set up working groups to promote knowledge sharing, provide technical assistance and research, as well as to foster dialogue among country members. It has then delivered assessments on topics such as the Single Window legal framework and gap analyses on paperless trade and electronic data exchange.

IDB has also played a key role supporting the Pacific Alliance agreement, funding important projects on market access and trade facilitation. Perhaps one of the most remarkable achievements is the Interoperability System for the Pacific Alliance Single Windows (IOP) which is described in Section 4.8.2.

4.8. Single Window Trends

As reflected in the overview of Single Window implementations in the KGH *International Single Window Study* and in the discussion in Section 6 below, a significant number of countries are already well-advanced in the implementation of national Single Windows, with many already in operation. While Single Window implementations advance, so do technology and innovative ideas to apply in them, and there are several topics impacting Single Window which are generating discussion at present. All should be reviewed and considered in terms of whether they could (or should) play a role in an eventual Single Window for Australia, and the following summaries are provided as background.

4.8.1. Trade Portal

Over the past several decades, most government agencies have established an internet presence, generally incorporating information about the agency and its responsibilities, with links to contact details, guidance, enabling legislation, and the like. Over time, many agencies have also taken

further steps to provide services (of various levels of complexity) to the public, for example replacing paper forms and approvals with electronic ones, allowing for electronic payment of fees, and moving the process of applying for permits on-line. Agencies with responsibilities at the border often have a specific section for importers and exporters, focused on their needs and requirements. And in most countries, Customs has a very comprehensive website aimed at importers and exporters.

But each of these agencies develops its website in its own style and with information specific to its own scope of authority; it is rare to find agencies which present import and export information in a comprehensive manner which also covers the steps and requirements of other relevant agencies. All of this combines to challenge the ability of the importer or exporter to be assured that he or she is aware of all requirements applying to a given consignment, even in his or her own country, let alone in other countries.

Up until very recently, it has been very unusual to find a national government which provides a website providing a “one-stop shop” covering all requirements for import or export into a country. Some countries have government-sponsored websites which are called “Trade Portals”, but they often tend to be focused on promoting exports and do not provide much useful information on general border procedures. That this state of affairs is detrimental to cross-border trade is not surprising. The World Bank observes:

A single source of all regulatory information, provided it is comprehensive, accurate and up-to-date, can result in tangible benefits in terms of trade facilitation. For a start there would be substantial cost savings if proper guidance can be obtained without the need to seek advice in person from several locations. Furthermore, conflicts would be avoided by having a single authoritative reference point, as would potential penalties for non-compliance. Cumulatively, these savings in time and cost should cut the overall cost of doing business and reduce the time to import or export goods thus contributing to a country increasing its overall standing in terms of transparency and ease of doing business⁶⁰.

The appeal of this sort of trade portal is evident to almost anyone in the business world looking to access foreign markets or foreign suppliers. Until very recently, with ratification of the TFA, the multiple agencies with responsibilities touching on the border in any given country have had little incentive (and often no budget) to come together and agree on the implementation of a trade portal unless they received a specific mandate from above. The dearth of trade portals currently in existence (they are currently being implemented in countries which are involved in World Bank sponsored trade facilitation development projects, but they are otherwise currently virtually non-existent) shows that it is rare that a government has made creation of such a portal a priority.

Yet it should be immediately evident that the organisational factors which are necessary prerequisites for a Single Window project would also lend themselves to creation and maintenance of a national trade portal. In fact, the necessity for a successful Single Window to maintain its currency with the changing regulatory requirements of the agencies involved in it means that the lead agency must track and document all such developments impacting Single Window-enabled import and export processes. The incremental cost of providing that information to traders in a comprehensive trade portal would seem to be minimal.

Conceivably, a trade portal could move beyond the provision of information to assist traders in preparing for a cross-border shipment to the provision of services, such as registration, permitting, and payment of border-agency related fees. If a national Single Window exists, these (non-time-critical) services could be cross-linked to the Single Window (where rapid release is desirable and often critical) for purposes of validation, authentication, and risk management, leading to trade facilitation treatment which may be much more “personalised”, yet be largely automated, than would otherwise be possible. Even where such cross linkages are not in place, it is of critical importance that the trade advice in a portal is fully consistent with the operational functionality of a Single Window.

4.8.2. Interoperability of Single Window

Recognition of the benefits of national Single Windows has led to a realisation of the potential advantages of scaling the Single Window concept to cross-border exchanges of data. The great number and variety of public agencies means that the main challenges remain the simplification, harmonisation and standardisation of data collection (whether electronic or in paper form) and procedures.

“Interoperability” refers to the exchange of specific categories of foreign trade-related information in a structured format between two or more Single Window systems in different economies or countries. According to the UN/CEFACT Recommendation 36 (released early in 2017), the aim of interoperability should be to exchange accurate, complete data (datasets) speedily, seamlessly and securely and to the greatest benefit for operators and users.

The scope of Single Window interoperability may be adjusted depending on the interest of parties. Recommendation 36, for instance, points out that they can be bilateral, or multilateral if more than two countries are included; as well as sectoral if interoperability operates only between specific sectors (Customs to Customs,⁶¹ phytosanitary authorities, or maritime agencies). Increasing interest in interoperability has led to proposals to include specific provisions in the latest preferential trade agreement negotiations.⁶²

Countries and economies with mature Single Windows or data exchange systems in place are developing interoperability projects at the multilateral level, notably the Association of South East Asian Nations (ASEAN) group.⁶³ The Pacific Alliance regional free trade arrangement (consisting of Chile, Columbia, Peru and Mexico) is the first to establish by treaty the obligation of members’ national Single Window systems to interoperate at a regional level; it defines the obligation as establishing the “capacity of the systems to allow the electronic exchange of information, aligned to internationally accepted standards.”⁶⁴

The IOP started operations in July 2016;⁶⁵ it is an integrated platform for facilitating trade through faster clearance of cargo and release of shipments among Pacific Alliance countries. The IOP connects each member country’s Single Window which enables standardised submission and processing of data, as well as a single point of approval for clearance of cargo. The scope of this project currently is limited to exchange of Phytosanitary and Certificate of Origin messages among the country members, but it is expected that in 2018 the customs declaration will also be included in the system.⁶⁶ It is very likely the world’s first case of multilateral Single Window interoperability in action.

It appears that the topic of Single Window is increasingly being directly included in free trade agreement discussions as part of the topic of trade facilitative measures, with focus specifically on the benefits that interoperability can bring.

4.8.3. Port Community System

Port environments encompass a complex network of transactions with multiple and diverse public and private actors. Based on the characteristics of port operations, two groupings can be discerned: the port/cargo logistics services and operations (e.g. loading, unloading, mooring, towage, pilotage), traditionally known as the Port Community System (PCS), and the other related to regulatory reporting requirements (declarations to port authority, coast guard, immigration, Customs, etc.) for vessel and cargo clearance to and within the port premises; often called a “Port Single Window”.

A PCS is a collaborative electronic platform that facilitates end-to-end information flow and creates value for port users, trade and logistics businesses and government agencies. It is meant to be neutral and open and enables intelligent and secure exchange of information among parties to improve the efficiency and competitive position of the sea and airports’ communities and optimises, manages and automates logistics processes through a single submission of data and by connecting transport and logistics chains.

At the conceptual level, a PCS is a system that aims to provide interoperable information exchange amongst a diverse stakeholder base and that corresponds very closely with the Single Window idea. PCS’s share many architectural and other technical similarities with the Single Window concept and the information exchanged is often, at least in part, data which is also required in trader declarations and government reporting mandates.

The growth of requirements for real-time exchange of information and the rapid development of IT systems are creating demand for more integration between both environments, leading to an expansion of the previous narrow PCS notion into a more comprehensive one encompassing government agency reporting procedures. Because of this, in some countries, PCS are linked to Customs and OGA applications (see the discussion of the Netherlands Single Window in the KGH study, for example) and this model could provide a useful example for Australia in terms of a collaborative data sharing in the Single Window context.

A PCS integrated into a Single Window would, at minimum, embrace those reporting requirements related to the vessel and cargo that are required by government (e.g. in declarations). From a business process model perspective, such may be classified as follows:

- Regulatory: IMO-FAL forms, cargo manifests
- Operational: Vessel arrival notice
- B2B messaging: Booking, nomination of pilots
- Services requests: Bunkering, container pick up
- Delivery of information: Port services performance indicators, Single Window.

While UN/CEFACT Recommendation 33 is currently by design not applicable to B2B data exchanges, UNECE is engaged in a Single Submission Portal project⁶⁷ to bring in other categories of single-window-like platforms (which can include B2B aspects) under coverage of its range of recommendations. This effort is, in part, a response to work by the International Maritime Organization (IMO), which has contributed to this area by providing standards for the electronic exchange of information on cargo, crew and passengers as part of a revised and modernised annex

to the *Convention on Facilitation of International Maritime Traffic* (FAL Convention), known as “ALFAL-Forms”⁶⁸ and are promoting a new “Maritime Single Window” initiative.⁶⁹

4.8.4. Blockchain

Blockchain is the current IT sensation, with the greatest attention being upon its most famous application, Bitcoin. As is nearly always the case with such sensations, the hype is overwhelming and a cursory Internet search will lead to a huge number of articles and videos proclaiming that Blockchain answers the prayers of those seeking better and more secure communication in industries as diverse as insurance, healthcare, banking and supply chain logistics. There can be little doubt that this new way of combining existing technologies has the potential to be a breakthrough for secure, authenticated and authorised information exchanges between a diverse range of actors without the need for an expensive 3rd party acting as guarantor.

This has particular implications in the international trade supply chain – and regulation thereof – and it is reminiscent of the claims made for the Universal Consignment Reference (UCR) around 2002 to 2005. At the time it was recognised that a major challenge for regulators, traders and logistics operators in the international supply chain was the means to track the movement of a consignment based upon the many information exchanges that accompany its movement.

The UCR was a relatively simple concept, namely a unique alphanumeric identifier applied to a consignment as early as possible in the supply chain that was a part of all subsequent information exchanges, thereby enabling any party to interrogate a database at any stage in the consignment’s active life and learn of its status. The concept might have been simple, but the technological means, the legal challenges and the operational difficulties that were encountered by those attempting proof of concept in a fully open supply chain (i.e.: not a closed supply chain such as that operated by the express carriers) were sufficient to ensure that the concept has never been properly implemented despite its undoubted potential usefulness.

Some of the difficulties included reluctance to incur any liability should the number be quoted inaccurately, the cost associated with amending systems to incorporate the number, concerns regarding authentication of the number, the lack of technological sophistication and interoperability along the supply chain and uncertainty regarding benefits.

Blockchain technology is a significant improvement on the UCR concept, however the international supply chain is characterised by technologically conservative risk-averse parties for whom many of the difficulties presented above would remain even in a Blockchain environment. This is especially the case given the still unproven nature of the technology and its application, as summed up in the following quote from Coindesk, a news site that specialises in Bitcoin, but also in Blockchain more generally:

We are currently in a period of Blockchain development where many such experiments are being run. The only conclusions drawn so far are that we are yet to fully understand the dexterity of Blockchain protocols.⁷⁰

If such a statement is made by those deeply involved in Blockchain, then given the conservative nature of supply chain participants and government agencies, it is unlikely that this very interesting new technology will become commonplace in the supply chain soon.

Annex 1 provides a more detailed discussion of the technology that underpins Blockchain and some further ideas about its potential application.

5. Single Window under the TFA

5.1. History & Background

Up until 2017, virtually all work on Single Window projects was comprised of national implementations which were voluntary in nature, motivated by national considerations such as a desire for more efficiency in border operations, more effective enforcement, and IT-driven cost and personnel savings. Although multilateral donor organisations such as the World Bank and the regional development banks began to promote (and finance) such systems over the last two decades as being beneficial to the economy of developing countries (by making access to international markets less costly), there was no binding obligation on national governments to implement Single Window systems.

As discussed in Section 4 above, while UN agencies, the WCO and others produced a very comprehensive and useful range of guidance on how best to implement Single Windows, whether to do so (and take account of that guidance) was a decision left to each country. With the entry into force of the TFA in early 2017, Single Window may be perceived to have a stronger foundation than previously, at least in those countries which have acceded to the treaty's provisions. The discussion below examines whether, and to what extent, this perception is accurate.

The road to the TFA began at the Singapore Ministerial Conference in December 1996, when WTO members directed the Council for Trade in Goods "to undertake exploratory and analytical work ... on the simplification of trade procedures in order to assess the scope for WTO rules in this area."⁷¹ In 2004, the WTO agreed to launch negotiations on trade facilitation, with members agreeing that the negotiations "shall aim to clarify and improve relevant aspects of Articles V, VIII and X of the GATT 1994 with a view to further expediting the movement, release and clearance of goods, including goods in transit".⁷²

The negotiations on trade facilitation were concluded with an agreement at the Bali Ministerial Conference in December 2013, and on 27 November 2014, WTO members adopted a Protocol of Amendment to insert the new Agreement into the existing legal WTO framework, with entry into force once two thirds of all WTO members completed their domestic ratification procedures and deposited a valid acceptance instrument. This threshold was reached on 22 February 2017,⁷³ when the WTO received the 110th deposit, allowing the Agreement to take effect. The motivating factor behind the TFA was the potential for reduction of costs related to cross-border trade through removal of "border red tape". The WTO has undertaken studies indicating:

The full implementation of the TFA is estimated to reduce global trade costs by an average of 14.3%, with African countries and least-developed countries (LDCs) forecast to enjoy the biggest average reduction in trade costs. Full implementation has also been found to potentially reduce the average time needed to import by 47%. Cuts in export time will be even more dramatic: estimates predict a 91% reduction of the current average.⁷⁴

The TFA is divided into three sections, with Section I (divided into 12 Articles, many further divided into sub-articles) containing the substantive provisions to be implemented by signatory members; these are focused on expediting the movement, release and clearance of goods, and on customs

cooperation. Section II, entitled “Special and Differential Treatment Provisions for Developing Country Members and Least-Developed Country Members” contains provisions relating to a phase-in of implementation of Section I requirements for signatories in those categories of countries. It is important to note, however, that the provisions of Section I went into full force for developed signatory countries (such as Australia), as of the date of entry into force of the TFA, 22 February 2017.⁷⁵ Section III deals with institutional arrangements and final provisions.

5.2. TFA Provisions on Single Window

The TFA contains specific provisions relating to Single Window, in Article 10, entitled “Formalities Connected with Importation, Exportation and Transit”, specifically in Section 4, set forth below:

- 4 Single Window
- 4.1 Members shall endeavour to establish or maintain a single window, enabling traders to submit documentation and/or data requirements for importation, exportation, or transit of goods through a single entry point to the participating authorities or agencies. After the examination by the participating authorities or agencies of the documentation and/or data, the results shall be notified to the applicants through the single window in a timely manner.
- 4.2 In cases where documentation and/or data requirements have already been received through the single window, the same documentation and/or data requirements shall not be requested by participating authorities or agencies except in urgent circumstances and other limited exceptions which are made public.
- 4.3 Members shall notify the Committee of the details of operation of the single window.
- 4.4 Members shall, to the extent possible and practicable, use information technology to support the single window.

It should be noted from the outset that much of Article 10, including Section 4, is phrased to place obligations on “Members”, being WTO member states, in relation to formalities at the border. These provisions are clearly intended to address the government as a whole, encompassing all agencies imposing requirements on goods which move across the national border, not just on Customs (this is underlined by the fact that other TFA provisions do address Customs specifically, e.g. in Article 12), and regardless of whether those goods movements are in the nature of imports, exports, or transit.

Section 4.1 initially requires members only to “endeavour” to establish or maintain a Single Window; this is not a mandatory requirement. If such a Single Window is in place, however, Section 4.1 requires them to enable “...traders to submit documentation and/or data requirements for importation, exportation, or transit of goods through a single entry point to the participating authorities or agencies.” It further states that, after examination of documentation and data submitted, the government shall notify the “applicants” of the results “through the Single Window”, and “in a timely manner”. This sets a relatively high set of standards for the authorities in those countries with Single Windows. Section 4.2 arguably sets an even higher bar, by requiring agencies participating in a Single Window to refrain from demanding duplicative “documentation and/or data

requirements” (“except in urgent circumstances and other limited exceptions which are made public”).

As with the definition of Single Window in UN/CEFACT Recommendation 33, none of the above TFA prescriptions necessarily imply that the Single Window is in fact an IT system; the implication is that it could be an entry point for submission of documents. Nevertheless, Section 4.4 does require (the word “shall” is used) members with a Single Window to use information technology to support the Single Window (the “shall” is then softened considerably by “to the extent possible and practicable”).

As part of Article 10, Section 4 needs to be read in light of Article 10, Section 1.1, which sets the standards by which all members’ border formalities are to be judged:

1 Formalities and Documentation Requirements

1.1 With a view to minimizing the incidence and complexity of import, export, and transit formalities and to decreasing and simplifying import, export, and transit documentation requirements and taking into account the legitimate policy objectives and other factors such as changed circumstances, relevant new information, business practices, availability of techniques and technology, international best practices, and inputs from interested parties, each Member shall review such formalities and documentation requirements and, based on the results of the review, ensure, as appropriate, that such formalities and documentation requirements are:

- (a) adopted and/or applied with a view to a rapid release and clearance of goods, particularly perishable goods;
- (b) adopted and/or applied in a manner that aims at reducing the time and cost of compliance for traders and operators;
- (c) the least trade restrictive measure chosen where two or more alternative measures are reasonably available for fulfilling the policy objective or objectives in question; and
- (d) not maintained, including parts thereof, if no longer required.

Of particular relevance to the Single Window discussion is that admonition to “take into account... availability of techniques and technology, international best practices...”. This appears to be especially relevant to meeting the tests of Section 1.1 (a) and (b) above.

TFA Article 10 also contains, in Section 3, a clear recommendation to members to take account of international standards in defining border formalities—a not-so-subtle link to the work of the UN agencies and the WCO outlined above, much of it directly relevant to the Single Window:

3 Use of International Standards

3.1 Members are encouraged to use relevant international standards or parts thereof as a basis for their import, export, or transit formalities and procedures, except as otherwise provided for in this Agreement.

3.2 Members are encouraged to take part, within the limits of their resources, in the

preparation and periodic review of relevant international standards by appropriate international organizations.

5.3. Border Agency Cooperation & Informational Requirements

Although the only specific mention of Single Window is in Article 10, Section 4, the TFA also contains, in Article 8, a very clear mandate which can certainly be read to guide any and all activities pursued under Article 10, including any national Single Window project:

ARTICLE 8: BORDER AGENCY COOPERATION

1. Each Member shall ensure that its authorities and agencies responsible for border controls and procedures dealing with the importation, exportation, and transit of goods cooperate with one another and coordinate their activities in order to facilitate trade.

This provision essentially serves to mandate the CBM concept promoted by the WCO and other multilateral organisations, as discussed in previous sections of this report. Implicit in this cooperation is coordination of risk management, and effective implementation of it in any Single Window system. In contrast to CBM in the WCO context, however, the focus of the mandate here hearkens back to TFA Article 10, Section 1.1, with its goal of achieving results—“...in order to facilitate trade”. Which arguably means that the overarching goal of a Single Window implementation in any WTO member which has accepted the TFA must be doing so “in order to facilitate trade”.

An oft-cited obstacle to cross-border trade is the lack of easy access to accurate information on requirements for import and export, not just in terms of the actual border procedures, but also in terms of pre-requisites (e.g. registration requirements, permits, examinations) and the related costs.⁷⁶ Government agencies, to the extent they provide such information at all, often do it only for their own regulatory processes, and leave it up to the trader (or their service provider) to build the various pieces into an overall picture of what it takes to move a given consignment of goods from a domestic factory to a customer in a foreign destination or to import foreign-produced goods into the country. In particular, small- and medium-sized traders may be reluctant to engage in international trade because of the lack of information and resulting unpredictability.

One way to address this issue is for a government to implement a trade portal. Perhaps not surprisingly, given its goal to facilitate cross-border trade, the TFA also contains provisions which are relevant to the Trade Portal concept discussed in Section 4 above. The provisions fall under TFA Article 1, entitled “Publication and Availability of Information”. Initially, Article 1 mandates that:

- 1.1 Each Member shall promptly publish the following information in a non-discriminatory and easily accessible manner in order to enable governments, traders, and other interested parties to become acquainted with them:
 - (a) procedures for importation, exportation, and transit (including port, airport, and other entry-point procedures), and required forms and documents;
 - (b) applied rates of duties and taxes of any kind imposed on or in connection with importation or exportation;
 - (c) fees and charges imposed by or for governmental agencies on or in connection with importation, exportation or transit;

- (d) rules for the classification or valuation of products for customs purposes;
- (e) laws, regulations, and administrative rulings of general application relating to rules of origin;
- (f) import, export or transit restrictions or prohibitions;
- (g) penalty provisions for breaches of import, export, or transit formalities;
- (h) procedures for appeal or review;
- (i) agreements or parts thereof with any country or countries relating to importation, exportation, or transit; and
- (j) procedures relating to the administration of tariff quotas.

The above mandate in Article 1(1) does not extend to providing such information in any but the country's national language, and does not mandate provision of all such information via the internet. Article 1(2) does, however, go on to require a more general summary of national border regulatory procedures be published on the internet, "where practical" also in one of the official languages of the WTO:

- 2.1 Each Member shall make available, and update to the extent possible and as appropriate, the following through the internet:
 - (a) a description of its procedures for importation, exportation, and transit, including procedures for appeal or review, that informs governments, traders, and other interested parties of the practical steps needed for importation, exportation, and transit
 - (b) The forms and documents required for importation into, exportation from, or transit through the territory of that Member;
 - (c) contact information on its enquiry point(s).
- 2.2 Whenever practicable, the description referred to in subparagraph 2.1(a) shall also be made available in one of the official languages of the WTO.
- 2.3 Members are encouraged to make available further trade-related information through the internet, including relevant trade-related legislation and other items referred to in paragraph 1.1.

With regard to the "enquiry point" referred to in Article 1(2.1)(c), this refers to the provisions on enquiry points in Article 1(3), which encourages a country "within its available resources" to:

...establish or maintain one or more enquiry points to answer reasonable enquiries of governments, traders, and other interested parties on matters covered by paragraph 1.1 and to provide the required forms and documents referred to in subparagraph 1.1(a).

Article 1(3) goes on to require countries to "answer enquiries and provide the forms and documents within a reasonable time period", and encourages them to do so without requiring fees (however, if fees are charged, countries "shall limit the amount of their fees and charges to the approximate cost of services rendered.").

As with many provisions of the TFA, there is a "whole-of-government" focus throughout Article 1; the provisions apply not only to Customs, but equally to all government agencies with

responsibilities touching on cross-border movements. The requirements on publication of border-related requirements in Article 1(1), on provision of “a description of...procedures” and other details in 1(2), and the provisions relating to the “enquiry point” in Article 1(3) are all comprehensive in nature, and as such, pre-suppose a level of standardisation, coordination, and change management among the various government agencies which, while mandated by TFA Article 8, may present a serious challenge in implementation for any national government (and even require changes in legislation), even in the most developed countries.

Nevertheless, as should be evident from the discussion in Section 4 above, these requirements are fully aligned with the pre-requisites which must be in place for effective Single Window implementation and operation. Once these are in place, the stage is set for both a successful Single Window as well as a trade portal implementation, and the TFA provisions would seem to imply that both should be pursued in tandem.

While the WTO has thus far been very cautious in providing guidance as to how countries should implement the TFA’s Single Window-related provisions, a senior representative did indicate, in a recent presentation,⁷⁷ that the WTO considers integration of a trade portal into a Single Window concept as a logical decision, and would also encourage linkages between the Single Window and PCS to the extent such linkages facilitate trade. In what can perhaps be viewed as a cautionary note, the WTO representative also noted that countries should not construct a Single Window in the style of a “mastodon” (monolithic, large, and likely to soon be extinct), but rather in a more flexible “chameleonlike” manner.

6. Australia: Antecedents and Current Situation

6.1. Background & History

Pursuant to the Customs Act 1901, there are numerous requirements for traders (importers, exporters etc.) or their service providers (customs brokers, freight forwarders, shipping agents, etc.) to file documents with the ABF for goods being imported into, or exported from, Australia. Examples include:

- Entry of imported goods for home consumption (involving an import declaration) or for warehousing (via a warehouse declaration)
- Application for permission to deliver into home consumption like customable goods or excise equivalent goods
- Application to deliver special clearance goods (e.g. goods for disaster relief, urgent medical supplies, perishable food) into home consumption without entering them for that purpose
- Cargo reports
- Outturn reports by depot operators
- Application to move goods subject to customs control
- Entry for export of goods intended for export.

There are innumerable other examples of required communication (including prescribed forms) between the international trade community and the ABF (and *vice versa*) under the Customs Act and the large range of other customs-related legislation.

Of course, prior to the advent of electronic communication, this communication invariably involved documentary exchanges. For many functions, documentary communication is still accepted and, in some cases, required. The current legislation contains provisions dealing with the manner of communicating with the ABF by document, the manner and effect of communicating with it electronically, and the requirements for doing so.

But it is fair to say that Australian Customs in its various guises within the bureaucracy (now DIBP/ABF) has a record of innovation in IT dating back to the first use of computers and a national network in 1972. There have been discrete electronic paperless systems for import and export goods and cargo declarations since 1991 and an ICS for all cargo modes was implemented in 2005. That system is integrated in the sense that the goods and cargo declaration modules for both imports and exports are linked within the application, meaning that the traditional cargo accounting function is automated. Subsequently, in conjunction with the then Australian Quarantine Inspection Service (AQIS), which is now part of DAWR, the Customs ICS system was linked with the quarantine import and export entry applications - an early example of Australian agencies with border responsibilities collaborating in joint use of an IT system.

In 2004, Australian Customs made a series of representations to a government executive committee looking into improved border management efficiency which led to an allocation of funds managed by the DPMC for a 12-month review of Australia's regulatory data requirements and options for a trade Single Window. The information collected during that exercise was comprehensive, and included over 7,000 form data elements from 41 Commonwealth and state agencies, and was focused on elimination of duplicative data requirements all of which were extensively analysed and led to a standardised data set, harmonised against the WCODM Version 2. The review culminated in the presentation of options for a Single Window. Those options ranged from the simplest solution towards alternatives of increasing complexity and sophistication. The options presented were as follows:

- a) Implement an Australian Standardised Data Set in a phased manner as agencies redevelop relevant IT systems so that an important precursor to Single Window is in place based upon international standards (i.e. a form of national data harmonisation)
- b) Establish an electronic entry point for all Australian regulatory trade data as a limited front end Single Window development that would have minimal impact upon existing business or government IT systems
- c) Implement a fully-functional domestic Single Window system (a system that, if implemented today, would fully align with the TFA requirements) to manage all relevant regulatory data, integration of risk assessment and reporting into a single IT application with interconnectivity to maritime port community systems
- d) Build an internationally interoperable Single Window enabling cross-border B2G and G2G data exchanges that would imply a significant enhancement to Options b or c.

When those options were put to the formal steering committee in October 2005 as a draft Cabinet Submission, there was no agreement to proceed on any option, hence that particular initiative toward an Australian Single Window for trade was suspended. Nevertheless, the output and information resulting from the 2005 effort – if still available within DIBP – should be revisited so that

any similar future exercise does not start from ground zero, but rather benefits from the earlier exercise.

At about the same time, and partly as a result of the 12-month review mentioned above, Customs argued that the ICS, with its online links to the quarantine IT application for both import and export quarantine entries, already provided the great bulk of Single Window functionality. This position was maintained as the official line nationally and internationally for the following decade and more.

The impetus for a high functionality Single Window was, however, bolstered by its inclusion in the Coalition's Policy Platform for the 2016 Federal election. That policy stated:

Key Commitments

We will continue to drive job growth through trade and investment by: ...establishing a Single Window for all export documentation

Our Plan for More Jobs and Growth Through Increased Trade and Investment ...

2. Establishing a Single Window for export documentation

The Coalition will make it easier for Australian businesses to access export markets by working toward a 'Single Window' for all export documentation.

This commitment will drastically simplify the process Australian exporters need to follow in order to satisfy Australian Government export requirements.

For example, some businesses require permits or approvals from multiple government departments or agencies before they are able to export.

The 'Single Window' will substantially reduce red tape and, in doing so, reduce the time and cost associated with Australian exporters doing business.

It will complement the Coalition's Australian Trusted Trader programme, a \$70 million partnership between Government and business that gives priority cargo clearances and other benefits to businesses meeting supply chain standards.⁷⁸

While this policy was limited to a Single Window for exports, it no doubt influenced the July 2016 announcement by the ABF Commissioner that it was time for a serious attempt to review Australia's border regulatory data management environment to potentially embrace the various Single Window concepts and methodologies. In a keynote address to the ASPI, the Commissioner stated:

We are very keen to ensure that we capitalise on our Trusted Trader Programme by creating a Single Window. Traders who want to trade with Australia currently have to go through any number of portals to engage with any number of departments at the Commonwealth and state level. What we want to do is create a Single Window—one touch point, one Single identifier, one Single set of requirements for any trader to deal with Australia.⁷⁹

The latest confirmation of the Government's commitment to a Single Window came from the Minister for Immigration and Border Protection in his address to the 2017 Industry Summit on 31 July 2017:

Another exciting and ambitious part of the Government's trade modernisation agenda is a proposed Single Window for international trade. It is a potentially transformative project, it has been spoken about for a long time, and we are continuing to work away on it in the background. A Single Window environment, as you know, has the ability to transform how industry interacts with government.

Australian businesses are currently required to navigate a range of state and federal agencies and industry bodies to comply with all export and import regulations. A Single Window would provide businesses a singular digital eco-system for the lodgement of trade related documents. At the same time it would increase the visibility of the end-to-end supply chain, reduce manual processes, improve compliance and allow for more sophisticated risk assessment.

In designing that, we need to build a cutting edge system that is reliable, which provides genuine trade facilitation gains and which will have longevity. It's not simply an update of dated technology; this is a ground-up exercise in innovation. As a part of the design process, we are closely examining the international experience.⁸⁰

6.2. KPMG & KGH Research Studies

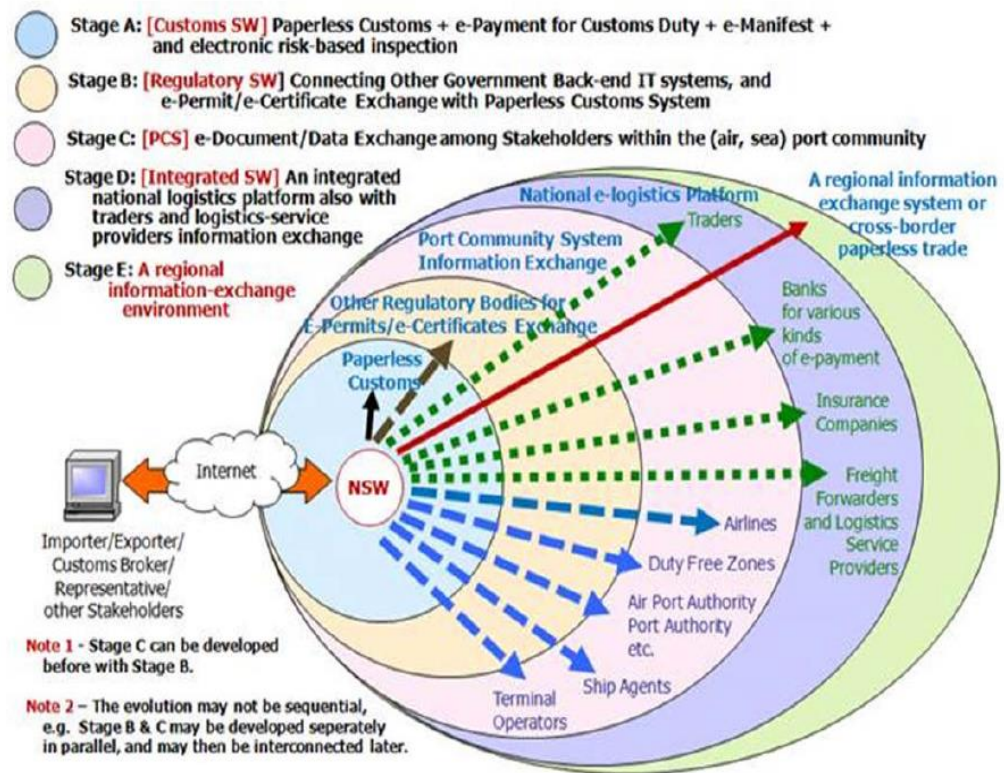
As previously mentioned, the two research studies commissioned in 2016 were (in the case of the KPMG study) intended to assist the Australian Government to determine the relevance of and the appetite for a national Single Window in the Australian business community, and (in the case of the KGH study) to provide international insights and ideas for any eventual implementation of such a system.

In the *International Single Window Study* (referred to as the "KGH study"), Single Window implementation for six countries are reviewed, namely Barbados, Canada, the Netherlands, New Zealand, Singapore and Sweden. The review looked at a number of dimensions, including:

- (a) policy and practice environment prior to implementation;
- (b) stakeholder engagement and management;
- (c) funding mechanisms and business models used;
- (d) management and governance arrangements;
- (e) timeframe for implementation, including phasing;
- (f) resources required;
- (g) lessons learned from implementation; and
- (h) future plans and innovations.⁸¹

The study also presented an updated version of the oft-referenced UNESCAP/UNECE Single Window Evolutionary Roadmap⁸² and classified each of the surveyed countries in terms of where they are in terms of "evolutionary stages"; the KGH version of this graphic is below:⁸³

Figure 3: Single Window Evolutionary Model



Source: KPMG, (2016) *Domestic Single Window Study*, p.8.

The countries reviewed in the KGH study are relatively diverse in terms of size of economy, stage of Single Window development, and geographic aspects, but the study was able to glean a number of insights generating key recommendations, including the following:⁸⁴

- (a) One lead agency to coordinate
- (b) High-level political commitment is crucial
- (c) Include legislation, business process re-engineering and data harmonisation
- (d) Define the Single Window vision and scope carefully
- (e) Adopt a phased, cost-benefit driven approach
- (f) Adopt a Coordinated Border Management (CBM) model
- (g) Incorporate Trusted Trader Programme status in the Single Window design
- (h) Develop centralised payment model
- (i) Incorporate change management & stakeholder relations in project
- (j) Involve Traders.

These recommendations from actual national Single Window projects parallel in many cases Single Window success factors highlighted in the recommendations of multilateral agencies, including the UNECE, UN/CEFACT and the World Bank, as discussed in Section 4 above, and provide a good practical guide to what Australia's government must consider in any implementation plan for a Single Window.

The *Domestic Single Window Study* (referred to as the "KPMG study") prepared by KPMG was focused on Australian domestic industry perceptions regarding Single Window-related issues, and was intended to "inform the need for an Australian Single Window."⁸⁵ The study involved collecting

data on the existing Australian government IT landscape as it relates to management of cross-border trade, and gauging industry perceptions of the current environment by means of surveys and interviews, and analysing and documenting the results, including via a number of detailed case studies of Australian companies engaged in international trade.

In terms of findings, the study indicated that import/export-related data requirements and systems of Australia’s agencies with border regulatory responsibility are, with some exceptions (notably DIBP and DAWR) not integrated or coordinated, leading to duplicative requirements and perceived delays. Applying the UNESCAP/UNECE evolutionary model to Australia’s current border environment, KPMG concluded that “when viewed as a whole, Australia’s overall regulatory system for trade would be assessed at Level 1 capability, and that “Australia’s trade regulatory environment would likely benefit from greater integration of functions and information accessed by industry through a single point.”⁸⁶

The study characterises the underlying problem, noting that “the key issue here is not so much that exactly the same data is provided to multiple agencies/organisations, but rather that slightly different data is often required to be provided.”⁸⁷ In terms of regulatory burden, the study ranked the Single Window-relevant regulatory burdens cited by industry as follows:⁸⁸

Figure 4: Regulatory Burden Ranking

Regulatory Activity	Ranking (KPMG consults) N=19	Ranking ('Pulse' survey) N=35
Determining regulatory requirements	1st	1st
Approvals delay for an import/export licence	2nd	3rd
Completion of border crossing documentation	3rd	2nd
Completion of documentation of an import/export permit/licence	4th	4th
Inspection requirements	5th	6th
Approvals delay relating to border crossing documentation	6th	5th
Process for the payment of fees/charges (not the actual amount of the fee/charge)	7th	7th
Maintenance of records for inspection/audit	8th	8th

Source: KPMG, (2016) *Domestic Single Window Study*, p.6.

According to KPMG, the study “clearly indicates that the overall greatest regulatory burden is in determining the regulatory requirements. A solution that simplifies the path through the maze of regulations and different agency responsibilities, perhaps with the inclusion of work flow functionality, would likely be well-received.”⁸⁹ Notably, this issue is one which a Single Window system, on its own, is not likely to solve - although one established in coordination/integration with a trade portal (see the discussion in Section 4.8.1 above), which can be designed to achieve these goals, could provide a good solution.

6.3. Research Studies: an Update

As discussed above, the KGH study examined Single Window implementations in six countries. According to the latest UNECE survey, 76 of the 120 respondent countries indicated that they already had a Single Window in operation, or were working toward one.⁹⁰ It is not our purpose to duplicate KGH’s work, which provides a useful analytical framework for Single Window projects, but an update or two may be in order.

Since the KGH study was published, two countries surveyed therein, Canada and the Netherlands, have moved their implementations into new stages, with Canada now offering importers the option of handling at least a portion of border requirements for 12 agencies within the Canadian Integrated Import Declaration,⁹¹ and the Netherlands adding the air mode into what they now call their “Single Window for Maritime and Aviation”. Use of the system, which incorporates messaging based on the WCODM, is being phased in and is scheduled to become mandatory by the end of 2017.⁹² Both countries plan to continue to expand their Single Window systems as time goes by.

Also since the KGH study was completed, the Bahamas has launched an ambitious Single Window project which rigorously follows the international best practice guides from WCO, UN/CEFACT and elsewhere in a system intended to enhance efficiency, transparency and consistency by automating all regulatory processes related to the movement of goods across the border. This project’s scope incorporates all regulatory permits, integrated risk management, national data harmonisation against the WCODM v3.5, new business procedures, a national data dictionary, and standardised business process and information modelling.

Another Single Window widely considered a “best practice” is that developed in Estonia, as part of a broader e-government strategy and using an innovative and very flexible multi-database philosophy.⁹³ It integrates both the transactional focus of a Single Window with the informational and work-flow capabilities of a trade portal into a broader palette of government digital services to create what is considered one of the best examples of a national “one-stop-shop”. The experiences of the above-listed countries in implementing Single Window could provide very useful information and ideas in the planning stages of an Australian Single Window for Trade.

At the same time, the experience of the US in implementing its Automated Commercial Environment (ACE) system can serve as a cautionary tale and a source of “lessons learned” for Australia as it considers whether to implement its own Single Window. The ACE system began implementation in 2001, originally with the focus of replacing a legacy import entry management system, and motivated by a desire to take advantage of new technology as well as to save money by eliminating the high operating costs of the previous system.⁹⁴

During the course of the project, it was combined with a more ambitious project (called the International Trade Data System) to create a Single Window, and ultimately came to be called the ACE Single Window project. The project was plagued with cost overruns (expenditures were likely in excess of US\$3.4 billion before the system began to become operational in 2016).⁹⁵ Changes in system direction, often inadequate or ineffective private sector involvement, and shifting management priorities led to increasing concerns at the highest levels of government, ultimately leading to a presidential mandate on inter-agency cooperation, and direct White House oversight of the project, as well as a statutory mandate by Congress that the project be “completed” by the end of 2016 (accompanied by a cut-off of new funding).

These mandates did lead to progress in certain areas, and some key functions of the system did go live in 2016. However, integration of OGAs was incomplete and plagued with frequent IT issues, necessitating work-arounds, and completion of the system did not meet the Congressional deadline. As of this writing, implementation dates for further aspects of the system continue into 2018, and the integration of some OGAs continues to be troublesome (or is simply not moving forward, in part due to funding issues).

The main stakeholders for the system, the customs brokers, became publicly critical of the project in 2016,⁹⁶ and the system continues to suffer regular down-time and technical issues. The project serves to provide a number of lessons regarding what works, and what does not work, in Single Window projects, and should be studied carefully for guidance in the preparatory stages of a similar project in Australia.

6.4. Current Status of Single Window in Australia

Since the speech by the ABF Commissioner referenced above, and publication of the KPMG and KGH reports, DIBP has established a dedicated Single Window section in its Canberra headquarters and has, with the close cooperation of DFAT, set up a multi-agency Inter-Departmental Committee on Single Window (IDCSW) consisting of 12 agencies,⁹⁷ jointly chaired by DFAT and DIBP.

A smaller core group, consisting of DIBP, DFAT, DAWR and the Department of Industry, Innovation and Science (DIIS) has also been constituted to steer the effort. DIBP also headed a Single Window Working Group (SWWG) within the National Committee on Trade Facilitation (NCTF) charged with systematically evaluating the operational environment in both the public and private sectors in order to recommend the best way forward. In mid-2017, this SWWG was apparently subsumed within a more broadly constituted and focused Trade Modernisation Working Group. The October 2017 meeting of the NCTF posited the transformation of that group into a Trade Facilitation Initiatives Working Group (TFIWG) but the final structure and charter of the group (including its work on Single Window) is yet to be confirmed.

Perhaps partly as a result of these organisational readjustments, there has as yet been no structured engagement between government and the Australian private sector on the topic of Single Window, and the overall government agenda on Single Window (including progress made by the IDCSW toward that agenda) has not been made available to the public (nor to our researchers).

7. SW in the Context of the Australian Government Agenda

7.1. Department of Foreign Affairs and Trade

DFAT is responsible for Australia's participation in the WTO and for ensuring that Australia meets its obligations under the various multilateral agreements, including the TFA. A crucial aspect of the TFA is the creation and operation of the ANCTF.⁹⁸

Trade is one of the four pillars of the Government's economic diplomacy strategy (along with growth, investment and business). A key focus is trade liberalisation and DFAT is responsible for negotiating and implementing the Free Trade Agreements (FTAs) to which Australia is a party. Those FTAs aim at boosting trade, primarily through trade liberalisation, but liberalisation outcomes are regularly frustrated by complex, inefficient and costly border procedures. Arguably, in achieving the Government's economic diplomacy strategy, trade facilitation is at least as important as trade liberalisation. A Single Window would potentially substantially reduce the time and cost incurred by businesses in importing goods to or exporting goods from Australia. DFAT, then, should and does have a vital interest in the development of a Single Window.⁹⁹

In addition, DFAT administers Australian sanction laws to implement United Nations Security Council (UNSC) sanctions regimes and Australian autonomous sanctions regimes – namely: the *Charter of the United Nations Act 1945* (the United Nations Act) and its sets of regulations - there is a separate set of regulations under the United Nations Act for each UNSC sanctions regime; and the *Autonomous Sanctions Act 2011* (the Autonomous Act) and the *Australian Autonomous Sanctions Regulations 2011*. In this role, DFAT is itself a permit-issuing agency.¹⁰⁰

The Minister for Foreign Affairs or the Minister’s delegate may be able to grant a permit authorising an activity that would otherwise contravene an Australian sanction law, and different sanctions regimes impose different criteria which must be satisfied before the Minister or the Minister’s delegate may grant a sanctions permit (to which the Minister or the Minister’s delegate may attach conditions). A formal application for a sanctions permit may be submitted by registering as a user of the Online Sanctions Administration System (OSAS). This directs the user to a Microsoft Silverlight program which provides for a User ID and password.¹⁰¹

An application for a sanctions permit should generally include complete information about the activity including, for example, the full path for any goods or services that the applicant may provide, from the applicant, through any intermediaries, to the end-user; and the full path for any payment that the applicant may receive in return, from the end-user, through any intermediaries, to the applicant. DFAT responds to formal applications submitted on OSAS as quickly as possible, subject to the current OSAS caseload. When considering an application, DFAT may need to consult other Australian Government agencies, other countries, or a Sanctions Committee of the UNSC.

Researchers’ Interview with DFAT

The researchers’ interview with DFAT confirmed that the department has been actively working on the prospect of a Single Window for several years, along with numerous other Federal Government agencies. DFAT and DIBP jointly chair an IDC SW, comprising approximately 26 Departments (including 36 permit-issuing agencies). This IDC SW is steered by core group of four departments - DFAT, DIBP, DAWR and DIIS – which meet bi-weekly.

DIBP is apparently leading a discovery process aimed at informing this work. Examples include:

- Solving identified pain points e.g. China-Australia Free Trade Agreement (ChAFTA) certificates of origin (Australia to China) – where traders report numerous rejections in China with consequent delays in clearance of imports
- Development of an Alpha process – designing potential models, prototypes and pilot programs focused on “low-hanging fruit” – i.e. opportunities for quick, inexpensive successes
- Seeking access to funds to develop these processes
- Exploring a data exchange system with China, akin to the one in place with New Zealand (a KPMG study on this aspect is said to be nearing completion).

Digitisation of the permit-issuing process will need to address three stages:

- Issuance – e.g. where Defence Export Controls (DEC) issues a certificate number
- Validation by DIBP of the authenticity of the permit
- Reconciliation by DIBP – e.g. a message back to DEC confirming that the permit has been used.

DFAT is willing to use its sanctions regime as a “test mule” for work on digitisation of the permit-issuing process.

Challenges anticipated by DFAT in progress towards a Single Window include:

- Funding – what is to be paid, how and by whom? Other countries have used a variety of means to fund their Single Window initiatives including full government funding, public-private partnership, cost recovery by user fees and outsourcing management to a private sector company
- Business is not homogeneous – an effective Single Window would need to be able to accommodate the different requirements of small to medium enterprises (SMEs) and multinational corporations (MNCs), across different industry sectors
- Reimagining the traditional scope of a Single Window to include aspects such as “know your customer” or including port authorities and State permit-issuing agencies
- Quantifying the benefit to industry of a Single Window.

DFAT takes the view that, while interoperability between different countries’ Single Windows is a highly desirable long-term goal, attempting that in the short term would be extremely complicated and would likely jeopardise the prospects of early success.

DFAT’s strong message is that, given the size and complexity of the task of designing a Single Window, it is essential that the process be informed by high quality input from the private sector, and DFAT actively seeks and welcomes that input.

7.2. Department of Immigration and Border Protection

DIBP is responsible for immigration and customs border policy and administration.¹⁰²

It aspires to be Australia’s trusted global gateway - the conduit through which legitimate travellers, migrants, potential citizens, international means of transport and goods can pass, with the ability to close the gate against those who intend to circumvent Australia’s border controls. Its stated mission is to protect Australia’s border and manage the movement of people and goods across it.¹⁰³

DIBP manages the Migration Programme, the Humanitarian Programme, Australian citizenship, trade and customs compliance, offshore maritime security and revenue collection. Its operational enforcement arm, the ABF, is responsible for investigations, compliance, enforcement and immigration detention operations, across air and seaports and land and maritime domains.¹⁰⁴

The combined roles of DIBP and ABF in managing Australia’s borders and controlling the import of goods into, and the export of goods from Australia are extensive, and necessarily mean that they will be crucial participants in any Single Window. As outlined in Section 6 above, the customs organisation from which elements of DIBP/ABF have evolved has been vitally involved in the development of early conceptualisations of the Single Window.¹⁰⁵

The ABF manages all of the operational functions of what was known as Australian Customs until recently and, as such, is the most relevant component of DIBP from a Single Window perspective. The agency describes itself as follows on its website:

“Our vision: We are Australia's trusted global gateway

Our mission: To protect Australia's border and manage the movement of people and goods across it

Our outcomes: We contribute to achieving three national outcomes:

- strong national security
- a strong economy
- a prosperous and cohesive society”.¹⁰⁶

ABF manages all the traditional responsibilities that typify any national customs administration such as commercial imports, exports, duties/taxes/fees, passengers’ baggage (as well as primary line passenger processing), investigation, enforcement, statistical gathering, cargo examination and physical aspects of security at ports, airports and other controlled spaces. It performs many of these functions alone and others in collaboration with a wide array of other government agencies.

For imports ABF deals with importers, brokers, forwarders, carriers, stevedores, container depot operators and other supply chain actors in order to collect commercial and transport data, risk assess that data and make decisions about admissibility, release and clearance for all imported goods.

For exports, the agency performs a similar role and for both, ABF works with permit issuing agencies as part of the decision-making process for clearance in a variety of ways. This ranges from automated interoperability with DAWR for quarantinable exports, to physical examination and sampling or holding of certain goods on behalf of other agencies.

ABF manages a large number of schemes on behalf of government for a wide variety of trade-related regulatory purposes including trusted trader, duty drawback, licensing (brokers, depot operators, duty-free shops and warehouses) and managing the tariff, rules of origin and valuation guidelines in a day-to-day sense for imports and exports.

Integrated Cargo System

ABF also manages the automated system in Australia for the management of customs border regulatory information requirements. This is done through an application known as the ICS that was implemented in 2005. The system matches data for goods and cargo declaration data for imports and exports and provides automated cargo control and reconciliation, greatly improving controls and facilitation for all parties. To access the ICS through the internet, users must have a digital certificate and install specific software. The system may receive data interactively through either an Internet web interface or UN/EDIFACT standard messages transmitted over the Internet as email attachments, by direct connect dedicated lines, or through Value Added, or Virtual Private Networks.

ABF provides a secure webmail environment for the delivery of encrypted emails. This service ensures message integrity and confidentiality. The system also receives export declaration data from the DAWR Export Documentation System (EXDOC) and this has been the basis of its claims for Single Window functionality in the past. The ICS processes this information and responds, via the same mode as the inward message, providing cargo status or other information as appropriate. The system also allows authorised users access to message status and to process diagnostic information.

Importers use the ICS to declare the import of goods to ABF and DAWR (if required). Import declarations may be made in a variety of ways, dependent on the details of the importation and the party involved. Importers may make a full import declaration (FID) or a “self-assessed clearance” (SAC) declaration. A further method of declaring imported goods is available to importers participating in the Australian Trusted Trader (ATT) programme by making a simple “request for cargo release” which is followed up by a monthly periodic declaration. The monthly periodic

declaration contains a complete acquittal of all goods imported by the accredited client during the reporting period.

Exporters use the ICS to declare their intention to export goods meeting the criteria set out in the Customs Act 1901. Declaration of exports requiring DAWR approval may be made through a single message to the DAWR EXDOC system. This system links to the ICS through the Single Electronic Window (SEW) facility. EXDOC users can report to DAWR and have reports forwarded to the ICS to create export declarations. Customs export authority or other information is returned to the user through EXDOC.

DIBP runs, in conjunction with 20 or more other agencies with border responsibilities, a “Border Intelligence Fusion Centre” where profile matches from the ICS are risk-assessed utilising a range of intelligence obtained from the various OGA systems. This multi-agency coordinated approach to risk assessment provides the conceptual basis for an automated integrated risk assessment environment of the type needed for an eventual Single Window system.

The EXDOC system is used by exporters to report and clear goods requiring DAWR permits prior to exportation, typically meat, fish, dairy produce and agricultural goods.

Vessel and aircraft operators, including airlines and shipping companies use the ICS to report the arrival and departure of vessels and aircraft at or from Australian ports and airports. These data are processed within the ICS to control and facilitate the reporting and clearance of goods.

Impending arrival and departure reports are made prior to the movement of the means of transport occurring. This allows the ABF to undertake processing and clearance of cargo and the means of transport with minimal interference to the physical movement of the goods.

Cargo reporters, such as airlines, shipping lines and freight forwarders, report the movement of cargo to the ICS. Cargo reports are generally made prior to the arrival or departure of the goods and, as with impending arrival reports, allow the ABF to undertake processing and clearance of cargo, with minimal interference to the physical movement of the goods.

The ABF administers legislation for a range of Government Departments and Statutory Authorities which exercise controls for the reporting and control of certain classes of goods. Where control over the importation or exportation of goods is required, the responsible authority will typically require the use of Import/Export permits. The ICS validates whether permits have been produced, providing notification to users when a quoted permit is invalid, or when a permit is required but not quoted.

While the proposed absorption of DIBP into the Department of Home Affairs (DHA) from July 2018 will probably result in the transfer of the DIBP functions described above to DHA, it is expected that the ABF will retain its separate identity with DHA, along with responsibility for its functions as outlined above.

Researchers’ Interview with DIBP

The researchers’ interview with DIBP confirmed its participation as joint chair (with DFAT) of the IDCSW (described above) and as part the core group with DFAT, DAWR and DIIS. It also confirmed the department’s commitment to progressing a Single Window that can realise meaningful trade facilitation outcomes. DIBP referenced the KGH and KPMG reports and the WCO Single Window Compendium as key documents in informing its work.

While still in its early stages, the recently announced Trade Modernisation Initiative (TMI) is a holistic, end-to-end approach to trade regulatory reform involving many agencies apart from DIBP. It includes, but is much broader than, Single Window. It was proposed that the recently formed Trade Modernisation Industry Advisory Group, chaired by DIBP, would meet monthly, and would report to the NTFC. Some of the other agencies involved in the TMI (and Single Window) include:

- DPMC Digital Transformation Office – Minister Angus Taylor (Digital warehousing)
- DFAT – exports / sanctions
- DAWR
- Digital Economy Strategy – Minister Arthur Sinodinis
- DIIS – simplification
- National Ports Authority
- Maritime SW
- PCS – e.g. Fremantle
- Australian Taxation Office (identity management, e-invoicing standards)
- ABR – Standardised Business Registration – standardises products / invoice fields / receipt fields

At the time of interview, DIBP indicated that the SWWG was still in existence, but at the subsequent meeting of the NTFC, DIBP advised that a decision had been taken to incorporate the work of the SWWG into that of a TFIWG, and that there was a preparedness to expand the membership of the group to include other relevant private sector interests. The combined work of DIBP and the (former) SWWG is focused on the design and implementation of a Single Window, and DIBP is also investigating options for interoperability and the potential application of blockchain technology.

DIBP referenced its June 2017 Market Consultation Paper (“Delivering visa services for Australia”) as a potential paradigm for Single Window consultation. This document endorses an outsourced public-private sector partnership model for visa services. DIBP further suggested that it would be timely for any published outcomes from this research project to be release by December 2017 to link with the Government’s pre-2018 Budget deliberations.

7.3. Department of Agriculture and Water Resources

A number of the responsibilities of DAWR would suggest that it would be a primary participant in any Single Window.¹⁰⁷

Imports Generally

To help protect Australia’s unique environment from unwanted pests and diseases, DAWR regulates the importation of certain products into Australia. The importation of some products is subject to certain biosecurity import conditions. Some products are not permitted entry while other products are only allowed entry subject to meeting import conditions that mitigate the biosecurity risks.

In 2016, DAWR designed and implemented an informational portal and permit management system incorporating integrated case management, workflow and consolidated payments called the Biosecurity Import Conditions System (BICON) catering for both commercial and non-commercial importers.¹⁰⁸ BICON represents a significant initiative in the context of trade facilitation, by automating and streamlining the determination of whether a commodity intended for import into Australia:

- Is permitted,
- Is subject to import conditions,
- Requires supporting documentation,
- Requires treatment, or
- Needs an import permit.

It is the responsibility of importers to comply with DAWR's import conditions when importing into Australia. Cargo arriving in Australia can often be cleared by DAWR using declarations and information provided by the importer. Importers who wish to submit an import permit application need to register an account in BICON requiring email address and password. When registering an account in BICON, the importer is asked to:

- Acknowledge a set of terms and conditions
- Specify whether registration is as an individual or a company
- Provide individual or company details including name and email address
- Confirm that he/she owns the nominated contact email address
- Nominate a password and 'secret' questions to help verify identity in the event of forgetting the password.

The import conditions published in BICON will define whether an import permit is required for a particular import scenario. A link is provided to apply for an import permit, if an import permit is required. Draft versions of applications can be saved in BICON for subsequent completion, without loss of data. BICON allows attachment of supporting documents (each up to 100MB in size). DAWR will issue the importer, either directly or via a broker, with a directive that goods are released from biosecurity control or if any actions are required, e.g. inspection, treatment, isolation or hold pending further information or insect identification. Inspection of cargo is undertaken on the basis of risk management, focusing on pathways that DAWR has assessed to be higher risk for pests and diseases. Cargo may also need to undergo inspection and treatment prior to clearance.

The BICON is a form of trade portal for import quarantine purposes and the Automated Import Management System (AIMS), which is a risk assessment application that processes data from the DIBP's ICS system, provides for significant interoperable risk and data management between DAWR and DIBP for goods subject to import quarantine control. (Legislation allows DAWR 90 days to issue permits. They generally do it in shorter time but complex commodities may take up to 18 months.) The same can be said for inbound containers and, to a lesser degree, inbound marine vessels. The current arrangements for air are manual.

At a telephone conference with DAWR Imports and the Research Team, it was noted that Australia and New Zealand share a highly regulated biosecurity regime for imported goods in the interests of social amenity, human health and environmental protection. Australia has more than 40,000 discrete commodities that might fall within the provisions of the Biosecurity Act and therefore could require an import permit for either plant or animal quarantine regulation. BICON (discussed above) was introduced to facilitate industry compliance in this regard, and DAWR is currently reviewing the system in order to update it to reflect the changes implemented by the Australia Biosecurity Act of 2015. This is a two-year review of requirements for permits and conditions for plants and animals, focusing on the nature of the relevant risks.

BICON, which exhibits many of the features of a trade portal (see discussion above), albeit only for a limited portion of DAWR's overall border responsibilities, is not currently linked to the ICS directly, which implies that there is no interoperability or capacity for an importer to toggle between those systems and no data sharing with ABF regarding permits. However there are automated means by which DAWR is able to risk assess all goods reported to government in the ICS via a cargo or goods declaration. DAWR has a number of profiles within ICS that are based on known quarantine risk HS codes and other risk factors, and the relevant import declaration data is automatically sent to another DAWR application known as AIMS.

DAWR uses the AIMS system to perform further assessment of the declaration data ex ICS from which a range of possible actions is possible. These might include the requirement for documentary check (managed by yet another DAWR application called the Cargo Online Lodgement System (COLS)) which encompasses many different types of document beyond the usual customs requirements and based upon the end-use of the imported goods, ingredients, offshore testing, foreign government approvals etc. Depending upon the outcome of its assessments, AIMS sends status messages back to the ICS, as well as instructions to detain the importation for inspection, treatment, or approval for release. This stage engages the Approved Arrangements operated by DAWR for treatment providers, cold-store operators, etc.

The COLS is linked to BICON and it allows importers/declarants to input details of their respective consignments and the likely further action required for quarantine import compliance. The system is also linked to the AIMS system and from the links between AIMS and ICS, instructions are issued by DAWR to importers and brokers through ICS messaging. AIMS is a legacy system likely to be upgraded by DAWR in the near future, however its core functionality is unlikely to be changed.

Containers, Aircraft, Ships

As well as goods, DAWR is responsible for managing the pest and disease risks associated with containers, aircraft and ships arriving in Australia. All aircraft, maritime vessels and military equipment arriving in Australian territory from overseas are subject to Australian biosecurity requirements.

DAWR has inspection and reporting requirements to ensure that all maritime vessels arriving in Australia comply with international health regulations and that any biosecurity risk is adequately managed. The biosecurity risk of each vessel entering Australian waters is assessed and necessary action is taken to ensure exotic pests and diseases are not introduced.

This is achieved through the Maritime Arrivals Reporting System (MARS) - an online web portal used by commercial vessel masters and shipping agents to submit pre-arrival documents required of all international vessels seeking Australian biosecurity clearance. MARS has functionality to view information related to the status of the vessel. Masters with email but no internet access complete offline forms that have been provided by an agent and then email the xml data file back to the agent. The agent then loads this data file into MARS.

The various risk factors surrounding inbound marine vessels (human health, vessel management, biosecurity concerns with ballast) are managed within the MARS compliance management application. This system interoperates with the Australian Maritime Safety Authority (AMSA) and

DIBP (via its Intercept system) for a wider government compliance capability for inbound vessels. The Master or his agent can submit regulatory data to MARS via a webform functionality (smartform) using structured data exchange. There is no automated system for aircraft and intervention by DAWR is limited to physical controls based on advice from air industry actors – for example, sick passengers, non-disinfection of aircraft etc.

Shipping containers (but not ULDs) are subject to stringent controls to manage dirt, weeds, insects and other risks both inside and outside the box. DAWR performs around 250,000 container inspections each year based on a number of risk factors, but particularly country of origin. In addition there is an unspecified number of tailgate inspections based upon the rural destination of a given container. This procedure is automated in a system known as S-Cargo that is linked to the ICS in a manner similar to AIMS in order to receive cargo declaration (manifest) data for risk screening and the possible placement of automated hold instructions.

Food Safety

In addition to imported cargo in general, DAWR manages import food safety under the Imported Food Control Act. For the purposes of this report, food management by DAWR is identical to the management of other commodities mentioned above and is also performed within the BICON application in terms of permitting and the AIMS application in terms of risk management/inspection/release.

DAWR is responsible for administering two sets of requirements for imported food. These requirements are designed to:

- Protect Australia against biosecurity risks, under the *Biosecurity Act 2015*; and
- Address food safety, as set out in the *Imported Food Control Act 1992*.

Commercial importers of food such as fresh fruit and vegetables or food containing milk, egg, meat or other animal products may need to obtain an import permit prior to importing the food. As discussed above, this requirement is determined by BICON which also links to the permit application form if required. Importers applying for a permit need to have registered an account with BICON.

All imported food must meet biosecurity requirements to be allowed into the country. Once imported food has met these requirements, foods are monitored for compliance with the Australia New Zealand Food Standards Code. Food Standards Australia New Zealand (FSANZ) is the government body responsible for developing and maintaining the Australia New Zealand Food Standards Code.

Like food that is produced domestically, food that is imported into Australia must meet Australian food standards. The monitoring of imported food is a responsibility shared across many government agencies, including those at local, state, territory and federal levels.

Food entering Australia is subject to the *Imported Food Control Act 1992*, which provides for the inspection and control of imported food using a risk-based border inspection program, the Imported Food Inspection Scheme (IFIS). FSANZ advises DAWR on food that poses a medium or high risk to human health and safety, with DAWR classifying this food as posing sufficient risk to require inspection under the IFIS.

From 2018, the Australian Government will be introducing changes to the way imported foods are monitored and inspected for compliance with food safety regulations. DAWR considers that these changes do not alter the requirement for all imports of food to comply with the *Biosecurity Act 2015*.

As mentioned above, the management of food imports from the procedural and data management senses is the same as for imported cargo generally.

DAWR/DIBP Interoperability

DAWR is highly automated for import control purposes and that automation includes significant interoperability with the ICS system run by DIBP.

In combination, the DAWR and DIBP systems manage 75% or more of the government import regulatory control documentary and data management requirements into Australia. DAWR believes that even if DIBP goes ahead with a redevelopment of the ICS, the existing architecture and combined functionality should be carried over as it meets their needs well. DAWR indicated that a closer linkage between the permit (i.e. on BICON) and import data (i.e. ICS/AIMS) requirements (eliminating repetitive data entry) would be one area where a future Single Window system could offer improvements over the current state, but they raised the concern that trying to integrate BICON with the border regulatory requirements of other agencies would be too complex to contemplate.

A future Australian Single Window would need to capture the ICS/AIMS interoperability within its core capabilities given the successful operations of the current arrangements.

Exports

DAWR controls exports of agricultural products to assure Australia's trading partners that those products meet their import requirements. For prescribed products, the export control legislation defines the compliance requirements for export businesses.

Exporters of meat, fish, dairy, eggs, grain, horticulture, skins and hides, wool and meat by-products, such as pharmaceuticals, blood and pet food, use electronic certification and may generate their own health certificates and related documents by registering as an EXDOC Electronic Data Interface (EDI) user.

When exporters also register for the SEW, EXDOC can generate an export declaration number (EDN) necessary for ABF's ICS clearance, to streamline the export process. The SEW is an electronic interface between the Customs and quarantine systems that enables users to access both agencies' applications via a single session.

Exporters of feeder and slaughter livestock to Indonesia, Bahrain, Kuwait and Qatar must have an approved Export Supply Chain Assurance System (ESCAS) for all consignments.

The *Export Control Act 1982* and the *Export Control (Prescribed Goods—General) Order 2005* provide the legal framework for both 'prescribed' and 'non prescribed' goods. Exporters must meet both the requirements of the *Export Control Act 1982* and its subordinate legislation and any importing country requirements to enable DAWR to provide the necessary documentation for commodities to be exported.

Researchers' Interview with DAWR Exports

At a meeting between DAWR Exports and the Research Team, it was noted that exports for Australian quarantine control purposes had been first automated in 1992, with today's systems being sophisticated but still being redeveloped. The core business processes were unchanged but DAWR was increasingly embracing audit and other types of verification through the more holistic embrace of risk management. System enhancements supported this and also included better workflow analysis and reporting.

Since 1998, there has been an extensive interoperability between the quarantine (i.e. DAWR) and Customs (i.e. DIBP) export automated systems. At present, this EXDOC/ICS interface which is known as the SEW meets DAWR needs for exports and has been largely the reason why Australia regularly referred to an existing Single Window capability from around 2004 until 2016. The system incorporates extensive data sharing and also matching of transactions for validation purposes built around three mandatory elements, namely Exporter ID, Free on Board (FOB) value and gross weight. While data is shared with Customs on a transactional basis, there is no systematic aggregated data exchange and no integrated risk assessment.

DAWR has an extensively controlled version of the "authorised supply chain" within Australia so risks tend to be associated with the destination in terms of Australia's reputation for being a trustworthy and clean export source. This places a focus upon data quality and cross-border data exchanges. In this regard, Australia has led international developments in data and messaging standards for international exchange including the EDIFACT e-CERT sanitary/phytosanitary message. It is currently chair of the International Plant Protection Convention (IPPC) international permit and data hub development which form the basis for international interoperability.

In the future, DAWR will look at innovation such as "machine learning" and data analytics, but they do not see themselves as trail-blazers in such new technology, including Blockchain.

In summary, for exports DAWR is highly IT enabled and well aware of the Single Window concept. They believe that their current arrangements deliver excellent service to Australian exporters and they would not support any innovation that had a possible negative impact on that service level. They are leaders in international data exchange and interoperability with much potential to lead government in this field. There seems to be some potential for systematic data sharing between DIBP and DAWR for collaborative risk assessment purposes and, as a result, the potential for integrated risk management.

Australian Pesticides and Veterinary Medicines Authority (APVMA)

Australian law requires all agricultural and veterinary chemical products sold in Australia to be registered by the APVMA. Once a product is registered, it is approved for the purposes and uses stated on the product's label. Approved agricultural and veterinary (AGVET) chemical products and active constituents are identified by an APVMA registration number on the label. Without the approval of the APVMA, an AGVET chemical cannot be legally imported, marketed, supplied or used in Australia. Only registered products and approved active constituents can be imported without the need for further approval, and importing unregistered AGVET products or unapproved active constituents is an offence.¹⁰⁹

Before accepting exports of a chemical product from Australia, many countries require an assurance from the government authority responsible for regulating the product in Australia. The APVMA certifies the relevant details of such products through a range of certificate types.¹¹⁰

7.4. Department of Infrastructure and Regional Development

Amongst numerous responsibilities and operations of the Department of Infrastructure and Regional Development (DIRD), the one most likely to interact with a proposed Single Window is its National Freight and Supply Chain Strategy. The Australian Government has announced it will develop a long term (20-year) national freight and supply chain strategy to improve freight and supply chain efficiency and capacity and to reduce the costs of transporting goods through the major national container ports, airports and intermodal terminals.¹¹¹

The strategy is in response to Infrastructure Australia's Australian Infrastructure Plan, and will be informed by the findings of an independent inquiry. The inquiry will determine how to best lift the productivity and efficiency of Australia's freight supply chain.

When examining options for new and/or adaptive capacity to meet forecast freight growth, and possible productivity and efficiency improvements for freight and supply chain infrastructure, the inquiry will need to take into account a range of factors and possible interdependencies, including: urban, regional and investment planning; efficient markets; competition; innovation; connectivity; resilience; and safety.

Without limiting related matters, the inquiry and development of a national freight and supply chain strategy through consultation with industry will inform Transport and Infrastructure Council members, by:

1. Establishing the capacity of the key national ports, airports and intermodal terminals in comparison to international markets with similar characteristics, identifying trends occurring in the global supply chain and reviewing the adequacy of investment planning to efficiently meet forecast growth to keep Australia's position with its trading partners;
2. Determining the regulatory and investment barriers to improved efficiency and access to key national terminals, including road and rail corridors;
3. Establishing the opportunities for regulatory changes and targeted investment to lift the capacity of key supply chain nodes and improve efficiency of operations, including an analysis of the implications of the changing profile of ownership in large scale supply chain infrastructure such as ports and rail;
4. Identifying the costs and benefits of options at a national level to improve:
 - a. The efficient operation of the national supply chain system, including effective and transparent public performance measures for key national terminals; and
 - b. Broad first and last mile issues.
5. Providing options for scenario planning and predictions, where possible, related to the following areas:
 - a. Future developments across the supply chain e.g. distributed production and changes in technology;

- b. Urban distribution and impacts of the movement of freight in urban areas due to population growth and changing consumer activities such as online shopping;
 - c. Decentralisation and redistribution of the population into regional centres;
 - d. Trade arrangements and the development of distribution systems in agriculture; and
 - e. Impacts on the supply chain following major climatic events.
6. Exploring opportunities to use big and open data and new digital technologies to improve the performance of the freight infrastructure; and
 7. Identifying options and recommending regulatory changes and investment actions (public or private) that will benefit the economy over the next 20 years. Specifically, through improved performance, productivity and efficiency of the freight and supply chain network and infrastructure.¹¹²

On 26 May 2017, DIRD released the Discussion Paper for the inquiry, marking the commencement of the public consultation period. Submissions closed on 28 July 2017 and the Department is now analysing the responses, together with comments received from meetings with key stakeholders. A draft report will be made available for industry and Government for comment by December 2017, and the final report will be provided to the Government by March 2018.

While not expressly referred to in the terms of reference for the inquiry, the means by which importers, exporters and service providers report data to and interact with the numerous Government agencies that are active at the border is integral to the strategy's objective of improving freight and supply chain efficiency and capacity and reducing the costs of transporting goods through the major national container ports, airports and intermodal terminals. Any benefits to be derived from increased private sector efficiencies to be delivered by the strategy will be severely compromised if significant bottlenecks remain at the point where traders and service providers interact with Government agencies at or around the border. In principle, a Single Window will enable the efficiencies derived from the National Freight and Supply Chain Strategy to be optimised.

Despite the lack of any express reference in the terms of reference to a Single Window, the concept is nevertheless consistent with the references to:

- Innovation and connectivity;
- Exploring opportunities to use big and open data and new digital technologies to improve the performance of the freight infrastructure; and
- Identifying options and recommending regulatory changes and investment actions (public or private) that will benefit the economy through improved performance, productivity and efficiency of the freight and supply chain network and infrastructure.

Researchers' Interview with DIRD

The researchers' interview with DIRD confirmed that developments on a Single Window would clearly impact on the National Freight and Supply Chain Strategy. There is apparently an existing working group on a Maritime Single Window concept though details were not forthcoming.

Some work had been done by DIRD in recent years on a PCS, but it had apparently been discontinued. This advice was at odds with advice received from other sources suggesting that some form of PCS was active in at least some Australian ports.

DIRD is supportive of developments (such as Single Window) that improve government interworking and collaboration. As the draft of the National Freight and Supply Chain Strategy was due to be presented to the Minister in December 2017, it would be useful for relevant outcomes from this research project to be included in that process.

7.5. Office of Transport Security

The Office of Transport Security (OTS) is Australia's transport security regulator for aviation transport, maritime transport and the offshore oil and gas industry. Its role is to ensure Australians and the country's national interests are secure through regulation that supports industry and the community as they carry out trade and travel activities. OTS does this by working with other government partners and industry with the objective of maintaining a strong and comprehensive approach to transport security.¹¹³

Air Cargo to the US

From 1 July 2017, screening requirements for air cargo to the US changed. These requirements were imposed on airlines by the Transportation Security Administration (TSA) of the US Government. All air cargo being transported to the US must either originate from a Known Consignor or be examined at piece level (box, carton, pallet or another deconsolidated form of cargo).

Cargo that originates from Known Consignors does not require further examination before uplift to the US. However, exporters of air cargo to the US which do not become Known Consignors need to engage a freight forwarder who is approved to examine air cargo at piece-level, provided the goods are capable of piece-level examination by the methods used by the freight forwarder.

If the freight forwarder is unable to offer piece-level examination, the cargo will need to be deconsolidated and screened at the airport before being accepted for uplift to the US. Initially, the capacity of cargo terminal operators (CTOs) to undertake this screening was not known and delays were said to be expected. Recent anecdotal evidence, however, suggests that CTOs have sufficiently increased their screening capabilities and some shippers have altered their processes (e.g. by refraining from shrink-wrapping loaded pallets) so that, generally, the anticipated delays have not eventuated.

Known Consignors

The requirements of the Known Consignor Scheme (KCS) are based on international best practice. Known Consignors must demonstrate that they have security measures and procedures in place to meet these requirements, and can secure their export air cargo from where it originates, until it is handed to another regulated business.

The security measures required under the KCS will depend on each individual business. This reflects the fact that exporters operate in a wide variety of environments.

Security measures include:

- Physical access controls and facility security measures;
- Information security measures;
- Secure packing, handling and storage of air cargo;
- Secure transportation of air cargo;
- Security awareness training;
- Background checking of employees to ensure they are of suitable character, including a requirement for staff in key roles to hold an Aviation Security Identification Card (ASIC);
- Quality control procedures in place to monitor and manage compliance; and
- Incident response and reporting procedures.¹¹⁴

Entry into the KCS is by application, validation (an on-site inspection), and approval by DIRD. The process commences with submission of an expression of interest through an online form on the DIRD website. The form requires the following data: company name; Australian Business Number (ABN); nominated security contact name; position; email; phone; postcode; and whether the business currently exports products internationally by air.

If the completed application form meets the KCS's requirements, an on-site validation will be conducted by DIRD to ensure that the applicant has appropriate security measures in place, and can comply with their obligations.

Registered Air Cargo Agents

Under the *Aviation Transport Security Act (2004)* and the *Aviation Transport Security Regulations 2005*, businesses that examine and security clear international air cargo must be approved as Registered Air Cargo Agents (RACAs).

A RACA must:

- Agree to and comply with a RACA Security Program provided by DIRD;
- Sign and return to the Department, a statement of undertaking to give effect to the obligations under the Act and Regulations;
- Examine and clear international air cargo in accordance with either the Air Cargo Examination (ACE) or Enhanced Air Cargo Examination (EACE) notice (which is issued to a regulated business once approved as a RACA), and protect the security of all cargo from time of receipt to delivery;
- Provide employees with ongoing security awareness training; and
- Be subject to periodic compliance checks by DIRD.

Both the ACE and the EACE programs are put into effect through the issuance of notices—which are delegated legislative instruments, and are legally binding—to RACAs that have the appropriate equipment and procedures in place to meet the examination requirements. These notices establish the minimum examination methods, techniques and requirements for the examination of air cargo.

The ACE and the EACE programs differ in a significant manner - the ACE notice applies only to cargo terminal operators (CTOs) located at the airport, while the EACE program applies to freight forwarding facilities that are located in off-airport locations.

To apply to become a RACA, a business must submit an expression of interest through an online form on the DIRD website. The form requires the following data: company name; ABN; nominated

security contact name; position; email; phone; postcode; and whether the company is currently an Accredited Air Cargo Agent (AACA).

DIRD then assesses whether the company meets the criteria for becoming a RACA and contacts the company and may require a site validation inspection.

Accredited Air Cargo Agents

The AACA scheme is for businesses that handle, or make arrangements for the transport of air cargo. An AACA must:

- Agree and comply with an AACA Security Program provided by DIRD;
- Sign and return to DIRD, a statement of undertaking to give effect to the obligations under the *Aviation Transport Security Regulations 2005* and the *Aviation Transport Security Act 2004* (the Act);
- Security check and protect the security of air cargo from the time of receipt to delivery;
- Provide security awareness training to employees that meets specific learning outcomes specified by DIRD; and
- Be subject to periodic compliance checks by DIRD.

To become an AACA, a business's operations must not include the examination or clearance of cargo. The business must be involved in handling and making arrangements for the secure transport of export air cargo and be a current registered Australian business.

Application to become an AACA is by submission of a form available in Microsoft Word format on the DIRD website. The form requires the following data:

applicant/company/partnership/incorporated association/sole trader/other details; contact details; operational site details; previous designation/accreditation; operational details; evidence; applicant undertaking; and a checklist.

The form may be submitted by mail or email. DIRD assesses whether the business meets the criteria to become an AACA. If the application is accepted, the business receives an AACA Security Program which needs to be formally accepted before being accredited as an AACA. Accreditation remains current for a period of one to five years. The duration of accreditation is determined by DIRD based on the security risk context for the business. It was noted that there are approximately 600 AACAs.

Researchers' Interview with OTS

The researchers' interview with OTS confirmed that there are approximately 30,000 exporters in Australia, of which 11,000 export to the US. Exports to the US account for approximately 5% of Australian exports by weight and 11% by value. There are currently 105 Known Consignors - largely featuring exporters of an eclectic range of products including mango, coral, meat, pharmaceuticals, niche hi-tech goods, nuclear materials and wine – but there are many more applications currently being processed.

The regulatory mandate of OTS limits its interest to exports of explosives. That interest does not extend to exports of weapons or drugs.

OTS works closely with DIBP and DAWR on the ATT program, particularly to the extent that it intersects with the KCS. However, while the ATT is largely focused on imports, the OTS is primarily concerned with exports by air; the legislative underpinnings of the two programs are different, making information sharing difficult; KCS approval does not lead to automatic acceptance of ATT security aspects; it is not possible for an applicant to request a joint (single) validation for ATT and KCS; and, to date, only a few Known Consignors have also achieved ATT status. These differences highlight the potential for improved levels of agency coordination, even though legislative change may be required for this to be achieved.

OTS expressed concern that any Single Window “big system” must not dilute its existing controls which, in large part, rest on unstructured data and are not susceptible to automation. The application process involves an online Expression of Interest (EOI), but this is followed by a manual assessment/validation process by OTS staff which may take several weeks or months to complete (which, in fact, is similar to the ATT process). While there is currently no charge for KCS validation (and no legislative basis for cost recovery), it is considered that this approach is not sustainable and some form of cost recovery will eventually be required. Indeed, if other countries follow the US TSA approach, it is likely that the demand for KCS accreditation will increase to a level beyond the capacity of OTS to conduct all validations and it may be necessary to appoint third-party validators to assist the processing.

OTS explained that its focus is very much on appropriate, often bespoke, security outcomes – it is not a “one size fits all” approach and it does not attempt to shoe-horn all applicants into a single security profile. As an example, the processing of fresh-caught fish on a trawler or wharf presents effectively no chance for a “bomb in a box” and so there is no need for extremely strict security protocols or hardware. OTS is unaware of any model overseas for incorporating the TSA requirements into a Single Window. However, it sees Single Window as a useful “front door” to government and is, in principle, in favour of it.

OTS confirmed that it (but not other parts of DIRD) will move to the proposed DHA effective July 2018.

7.6. Department of Industry, Innovation and Science

DIIS supports the internationalisation of Australian industry, encourages Australia's multilateral and bilateral industry and trade cooperation, and manages the Commonwealth's relationships with standards and conformity assessment bodies. It sees FTAs as an important aspect of the Australian Government's integrated trade, industry and innovation strategies. As part of a whole-of-government approach, DIIS plays a key role in the negotiation and the ongoing administration of FTAs. It does this by advising on issues as varied as tariffs, rules of origin, services, investment, trade remedies and technical and product standards.¹¹⁵

In these roles, DIIS is primarily involved in policy formation and advice, not operational matters involving the movement and clearance of imports or exports. In that context, although its roles do not lend themselves to incorporation into a Single Window, it may have a role in a trade portal, and in Single Window architecture and risk management aspects touching on its scope of responsibility.

DIIS is also responsible for Australia's anti-dumping and countervailing system. The system is administered by the Anti-Dumping Commission (ADC) and policy responsibility sits with the Portfolio Strategic Policy Division. The system provides Australian manufacturers with the ability to apply for anti-dumping and/or countervailing duties where they have experienced injury from dumped and/or subsidised goods being imported into Australia. In recent years, there have reports on streamlining Australia's anti-dumping laws and, in particular, its anti-circumvention framework in relation to anti-dumping measures.

Forms for the application of dumping and/or countervailing duties are available in Microsoft Word and PDF format on the ADC website, along with Appendices in Excel format dealing with required market and costing information. These documents are very extensive and require detailed information to be provided by the applicant. Applications may be made by mail or email and must include a confidential version (for ADC use) and a non-confidential version (for the public record).

An investigation by the ADC is a long (regularly more than six months) and iterative process involving numerous, often many, parties in the form of Australian manufacturers and importers, overseas manufacturers and exporters, and consultants and advisors. The complexity of the investigatory process does not seem to lend itself to incorporation in a Single Window, but antidumping duties are applied in the import process via ICS today.

7.7. Department of Health

The Department of Health (DOH) has a diverse set of responsibilities, based on a common purpose which is reflected in its vision statement: "Better health and wellbeing for all Australians, now and for future generations."¹¹⁶ It aims to achieve its vision through strengthening evidence-based policy advice, improving program management, research, regulation and partnerships with other government agencies, consumers and stakeholders. A number of agencies of the DOH have particular responsibilities in respect of imports and exports of specific categories of goods.¹¹⁷

7.7.1. NICNAS

The National Industrial Chemicals Notification and Assessment Scheme (NICNAS) helps protect the Australian people and the environment by assessing the risks of industrial chemicals and providing information to promote their safe use. Its focus is the industrial use of chemicals. This covers a broad range of chemicals used in inks, plastics, adhesives, paints, glues, solvents, cosmetics, soaps and many other products.¹¹⁸

The laws which it administers, including the *Industrial Chemicals (Notification and Assessment) Act 1989*, amongst other things:

- Compel commercial importers and/or manufacturers to notify industrial chemicals that are new to Australia; and
- Ensure that Australia meets its obligations under international agreements about chemicals.

In 1990, many industrial chemicals were "grandfathered" onto the Australian Inventory of Chemical Substances (AICS). Later additions to the AICS have been as a result of NICNAS assessments.

A first-time user needs to create an account with the online NICNAS Business Services portal. After submitting the enrolment form, NICNAS sends the user an email with instructions on setting a password. The NICNAS Business Services portal allows for resetting forgotten passwords, viewing and updating business details, renewing registration, changing registration level (there are four levels depending of the value of annual imports/manufacture), reviewing registration history, downloading the invoice and paying the fee, downloading the receipt, downloading the registration certificate, adding new users, editing user details and removing users. Updated details can also be provided by post.

A manufacturer or importer of a new industrial chemical must apply for a permit or assessment certificate for the chemical. Applications can only be sent to NICNAS by post.

Numerous forms (in Microsoft Word format) are provided on the NICNAS website for different notification categories to submit required data and information. The forms were originally required to be submitted in hard copy, but NICNAS now accepts, and prefers, electronic dossiers of data.

For certificate notifications, applicants must submit:

- Two copies of the complete notification statement;
- Two copies of the supporting physico-chemical and environmental effects data; and
- One copy of the supporting health effects data.

For permits, applicants must submit one copy of all information.

For most notification categories, the data requirements reflect the Schedule to the Act. For standard assessment and limited assessment notifications, different data are required, depending on whether it is a chemical or a polymer. Scheduled data requirements represent the minimum data required. If applicants have access to additional information, it must be provided to NICNAS with the application. The required fee must accompany the application. Assessment fees may be paid by cheque, electronic funds transfer or credit card.

NICNAS conducts an initial screening of an application to determine if it is complete and that all fees are paid. After screening is completed (usually within 14 days), NICNAS informs the applicant of the outcome and details of the information required to resolve any data gaps. This letter also includes the details of the assessment clock dates (if the clock has started) or the dates by which additional data needs to be provided to NICNAS (if the clock has not started). In some cases, the NICNAS assessor may need to clarify information or ask for additional information (for example, to resolve ambiguities or inconsistencies in data, interpret unqualified test data or to properly assess a chemical). In these cases, it will write to the applicant with the details and timeline for the required information.

In normal circumstances, NICNAS completes a certificate assessment for a new industrial chemical within 90 calendar days from the date the complete notification package (application) is received.

Applicants receive an assessment certificate for a new chemical within seven days of consent to publish, after 28 calendar days if no consent is provided, or after 90 calendar days when:

- The NICNAS Director has asked for additional information, in which case the 90 calendar days will begin from the date the additional information is received;

- An unusually detailed or complex assessment is necessary, in which case an additional 90 calendar days may be granted.

Within 14 days of receiving an assessment report (non-self-assessed), an applicant can ask the NICNAS Director to change it if, for example, it disagrees with the conclusions and/or recommendations on scientific grounds. This requires submission of an application for variation report form (available in Microsoft Word format on the NICNAS website) with payment.

If the NICNAS Director has not received a request to change the assessment report within 28 days from when the applicant forwarded it, the report can be published.

Under the Act, NICNAS does this by:

- publishing summary details of the assessment in the Chemical Gazette;
- giving a copy of the assessment report to the Department of the Environment;
- giving a copy of the public report to any person the Minister directs; and
- publishing the public report on the NICNAS website.

NICNAS will issue the applicant with the assessment certificate for a new chemical within seven days of consent to publish, or after 28 days if no consent is provided. The chemical will be added to the chemical inventory, AICS, five years after the assessment certificate is given, unless the applicant applies for it to be listed on the non-confidential AICS earlier. During that five year period, the introducer has exclusivity in terms of the importation or manufacture of the chemical. After the expiry of the five year period, importation and manufacture are open to other operators.

Other processes (transferring assessment certificates, record keeping, etc) need not be discussed here.

NICNAS, as an agency, will be discontinued as of July 2018, to be replaced by the Australian Industrial Chemicals Introduction Scheme (AICIS) pursuant to the Industrial Chemicals Bill 2017 which is currently before Parliament. As the Explanatory Memorandum for the Bill explains:

This Bill implements arrangements that will see regulatory effort more proportionate to the level of risk to human health and safety or the environment from the introduction and use of industrial chemicals, while maintaining Australia's robust health, safety and environmental standards...

there will be less emphasis on pre-introduction assessment of lower risk new chemicals and a greater focus on post-introduction evaluation and monitoring...

An important benefit of realigning regulatory effort towards industrial chemicals with a higher risk profile is that the costs to businesses and consumers using lower risk chemicals will be reduced. The faster regulatory pathway for lower risk chemicals provides an incentive to introduce safer new industrial chemicals, including replacing more hazardous existing chemicals.

Researchers' Interview with NICNAS

The researchers' interview with NICNAS confirmed that it is not involved in the IDCSW jointly chaired by DFAT and DIBP. NICNAS noted that, as both the NICNAS and AICIS schemes deal with

“introducers” of industrial chemicals (i.e. both importers and local manufacturers), and the data requirements for both groups are the same, any Single Window could potentially be amenable to use by both groups.

There are currently approximately 6,700 registered introducers. Although NICNAS is not connected to the ABF’s ICS, the registration process does depend upon an information sharing arrangement with ABF, involving about 15,000 entries per week in an Excel spreadsheet containing 20 fields sorted primarily by tariff classification. NICNAS has a particular focus on identification of the goods and the value of the shipment – the latter because there are four fee levels depending upon the value of the importation, ranging from \$138 for an SME to \$25,000 for a Level D importation exceeding \$5 million in value. NICNAS is 100% cost recovered through user fees.

NICNAS confirmed that, once a chemical is on the AICS, there is no need for an importer to deal with NICNAS for each individual import transaction. However, the system provides a flag to a customs broker to ensure that an importer of a relevant chemical is registered. Under the current legislation, NICNAS can injunct an importation if the importer is not registered.

NICNAS issues import/export licences for Rotterdam Convention materials (certain hazardous chemicals and pesticides) – this being its only involvement with exports. “In transit” chemicals are outside the NICNAS scheme. NICNAS is active in the Organisation for Economic Co-operation and Development (OECD) Chemicals Committee, particularly in its work towards an International Requirements for Data Standards document.

NICNAS recognises hazard assessments by Canada but not generally by other countries. However, the new AICIS scheme will feature increased reliance on international assessments. Overall, it is expected that there will be fewer assessments performed in Australia under the new scheme. The new scheme will accept International Uniform Chemical Information Database (IUCLID) dossiers.

The new scheme is the result of dissatisfaction on the part of introducers with the current system, a 2008 Productivity Commission report, an internal Policy Review and input from the Council of Australian Governments (COAG). It has been co-designed with a range of stakeholders.

Under the current scheme, there are three categories – exemptions, permits and certificates. Under the new AICIS scheme, there will be exempted introductions, reported introductions (requiring reporting prior to importation) and assessed introductions (where importation is prohibited unless and until AICIS assesses the chemical).

In terms of data, NICNAS’s requirements are less than those of the APVMA which, in turn, are less than those of the Therapeutic Goods Administration (TGA). Under the new scheme, the data requirements will be prescribed in delegated legislation in order to facilitate amendments.

On balance, NICNAS would have no objection to receiving the data it requires through a Single Window provided the delivery was timely and the data complete.

7.7.2. Therapeutic Goods Administration

The *Therapeutic Goods Act 1989*, administered by the TGA, applies to both the supply of therapeutic goods in Australia and the export of therapeutic goods from Australia.¹¹⁹

Most products for which therapeutic claims are made must be listed or registered in the Australian Register of Therapeutic Goods (ARTG) before they can be supplied in, or exported from, Australia. A sponsor (i.e. the individual or company intending to supply the goods) is responsible for meeting the regulatory requirements of the therapeutic goods legislation. Sponsors seeking approval to supply a therapeutic good in Australia, or manufacture a therapeutic good for supply, need to register their details with the TGA by:

- Submitting a Client Details Form to the TGA to register or update the contact details;
- Submitting an 'eBS Access Request Form' to obtain a login and password to the electronic Business Services (eBS) system.

The forms for sponsor registration are available through TGA Business Services on the TGA website (www.tga.gov.au) and include:

- Organisation details form;
- Add or remove an Agent from your organisation form;
- Add or remove a connection to your manufacturing organisation;
- Updating organisation administrator.¹²⁰

The forms are available in PDF and Microsoft Word formats. The PDF form can be filled in and saved to a computer using Adobe Reader version 7 or later or any version of Adobe Acrobat Standard or Professional. If only an earlier version of Adobe Reader is available, the form can be filled in on-screen and printed out but it will not be possible to save the completed form.

The complete list of TGA forms is available at the TGA website.¹²¹ There are over 100 forms.

In order for, say, a prescription medicine to be included in the ARTG, a sponsoring company is required to submit an application to the TGA. A submission to register a prescription medicine consists of:

- Data that support the quality, safety and efficacy of the product for its intended use;
- Completed forms relating to prescription medicines; and
- The payment of fees.

A description of the data required is included in the Australian Regulatory Guidelines for Prescription Medicines (ARGPM). Some guidelines issued by the European Medicines Agency (EMA) and adopted by Australia give guidance about the data to be included to support applications.

Data packages should be in the Common Technical Document (CTD) format. The CTD is a set of specifications for a dossier for the registration of medicines. The CTD was developed by the International Conference on Harmonisation of Technical Requirements for Registration of Pharmaceuticals for Human Use (ICH) and adopted by the TGA in 2004.

7.7.3. Office of Drug Control

The Office of Drug Control (ODC) regulates controlled substances. These substances are controlled under the *Customs (Prohibited Imports) Regulations 1956* and the *Customs (Prohibited Exports) Regulations 1958*.¹²²

Licences and permits are required to import and export certain narcotic drugs, psychotropic substances, precursor chemicals, antibiotics and androgenic/anabolic substances. Permission to import into Australia is made by separate applications for:

- Narcotic/Psychotropic drugs;
- Anabolic/Androgenic;
- Other controlled drugs;
- Precursor chemicals;
- Antibiotics.

Applications for export permissions are grouped into two types:

- Licence and permit to export;
- Pre-export notification

Application forms are available on the ODC website in both PDF and Microsoft Word formats.¹²³ They may be submitted by email by post.

Researchers' Interview with ODC

The researchers' interview with the ODC confirmed that this office was created (in February 2016) to manage the regulation of steroids, narcotics and the like through licensing such activities as the manufacture and medical use of cannabis. ODC administers the Narcotic Drugs Act and relevant parts of the Customs Act, Customs (Prohibited Imports) Regulations and Customs (Prohibited Exports) Regulations. The international agreement under which such controls are mandated is the United Nations Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances of 1988, which is managed by the United Nations Office on Drugs and Crime (UNODC) at international meetings in Vienna. Locally, the Convention's provisions are managed via specialised software for trading and reporting obligations. This system is known as the Computer and Telecommunication System for International and National Drug Control (NDS),¹²⁴ which is an online system for import and export regulation plus reconciliation between imports and exports where necessary. A separate online system known as the International Import and Export Authorization System (I2ES) operates between National Competent Authorities.

ICS Import Declaration Number (IDN) and EDN are recorded, but not validated and similarly the Customs ICS system cannot validate ODC permit numbers. Risks include counterfeit products and an inability to properly manage end use. ODC is limited by legislation in terms of sharing of sensitive data with other arms of government.

The volume of transactions and clients are both low (around 300 licensees) and no SMEs are involved. ODC is therefore a minor player in terms of overall trade regulation, albeit very important for the controlled substances for which it is responsible.

The Single Window implications would seem to relate to the ability of both NDSWeb and ICS to be able to validate declaration and permit numbers respectively. Clearly, that would enhance online control of information supplied to ODC but would need legal enablement.

7.8. Department of Prime Minister and Cabinet

The Department of Prime Minister and Cabinet (DPMC) provides advice and support to the Prime Minister, the Cabinet, Portfolio Ministers and Assistant Ministers to achieve a coordinated and innovative approach to the development and implementation of Government policies. It coordinates and develops policy across the Government in economic, domestic and international issues, Aboriginal and Torres Strait Islander affairs and public service stewardship.¹²⁵

International policy is the Government's response to global issues that affect Australia's interests and people. DPMC advises the Prime Minister on Australia's bilateral relations with other countries as well as the country's role in global and regional cooperation. It contributes to outcomes on overseas trade, foreign aid and development, and international security on behalf of the Government and for the Australian community.¹²⁶

DPMC works with DFAT and other government agencies with international responsibilities, as well as with business and community groups and non-government organisations. The objective is to ensure that different areas of the Australian Government are all working toward the same international goals, and are in step with the expectations of the Australian public.

As DPMC does not have an operational role at the border, it is unlikely to be an active participant in any Single Window but would nevertheless have a strong policy interest in the development of such a program, especially if it adopts a more substantive role in the NCTF.

7.9. Department of Defence

The matters dealt with by the Department of Defence (DOD) include:

- International defence relations and defence co-operation;
- Defence scientific research and development;
- Defence procurement and purchasing; and
- Defence industry development and co-operation.¹²⁷

Within DOD, DEC is responsible for regulating the export of defence and strategic goods and technologies.

These goods and technologies include:

- Military items designed or adapted for military purposes or those that are inherently lethal, incapacitating or destructive; and
- Commercial items and technologies that may be used or adapted for use in a military program or contribute to the development and production of chemical, biological or nuclear weapons systems.¹²⁸

Australia's export control policies are in place to enable the export of defence and strategic goods where it is consistent with Australia's national interests and international obligations. The export control system is the means by which this consistency is ensured.

DEC's mission is to enable the responsible export of defence and strategic goods and technologies by:

- Providing early advice to producers and developers on the control status and exportability of their good, service and technology;
- Issuing permits and licences for controlled exports;
- Delivering outreach programs to enable exporters to meet their obligations under relevant Australian regulations and legislation;
- Contributing to Australia's international efforts to prevent the proliferation of weapons of mass destruction through participation in multilateral non-proliferation and export control regimes;
- Authorising end-user and non-transfer certificates for the import of controlled defence and strategic goods; and
- Providing assistance with re-transfer approvals for foreign-sourced defence items.¹²⁹

The Defence Export Control System (DECS) requires applicants to register as a DEC client before submitting an application. Applicants may register on the DEC Client page which provides a Client Registration Form in SmartForm format when opened in Adobe Reader. Completion of the form leads to a prompt to submit by email.

The form for an Application to Export or Supply Controlled Goods and Technology (listed in the Defence and Strategic Goods List (DSGL)) is available on the DEC website.¹³⁰ The applicant may be required to attach supporting documentation such as:

- Technical specifications and/or brochures;
- Individual or Dealers Firearm licence (both sides) and registration certificate;
- End-User Certificates or Statements;
- Foreign government import/export approvals;
- Purchase Order;
- Classified Information Release authority;
- Defence Materiel Office Approval to release classified material;
- Evidence of an intention to demonstrate the goods or technology (such as an invitation to display); and
- Additional information or statement.

The application form is in SmartForm format when opened in Adobe Reader. Completion of the form leads to a prompt to submit by email.

The DEC website also provides forms for the following applications:

- Application for Australian General Export Licence (AUSGEL);
- Application for an International Import Certificate;
- Application for Delivery Verification Certificate;
- Application for Non-Transfer and End-Use Certificate;
- Application to Register as a Broker;
- Application to Make a Brokering Arrangement;
- DEC07 Restricted Goods Permit Application.

Researchers' Interview with DOD

The researchers' interview with officers of the DOD confirmed that the Department is responsible for administering Australia's exports approvals for defence and strategic goods through the DEC branch. The Customs Act 1901 and Regulation 13E of the Customs (Prohibited Exports) Regulations

1958 control the export of defence and dual use goods in Australia. The DSGL identifies goods which Regulation 13E prohibits from being exported from Australia without a license or permit. DIBP is responsible for the enforcement of export controls, including verifying that required permits and licences are in place prior to export or import, and for monitoring compliance with export controls. DIBP conducts audits and manages any violations.

DEC acts as the intermediary between government and trade for the management of restricted exports. It runs a form of portal from which prospective exporters can access the DSGL in order to evaluate the possible need for a permit. At the meeting with DEC, it was made clear that the SmartForm technology works reasonably well, but a fully functioning trade portal would be preferred.

This information exchange is also managed via SmartForm technology. The system submits a subset of the permit data (including permit duration) to the ICS for validation at export.

While the DEC is averse to any increases in system complexity, it does recognise that improvements are possible. In a Single Window sense, that might imply greater real-time data sharing and validation plus the possibility of integrated risk management so that DEC controls are effected at the time an export declaration is registered in the ICS.

8. Industry Priorities and Ambitions

One of the project objectives is to assess the current level of ambition within Australian industry for a Single Window. In doing so, the approach has been to validate, and where appropriate, update the information gathered in the 2016 KPMG study (see Section 6.2 above, with its summary of key findings from that study), but not to duplicate work already done. The project industry assessment consisted of three components:

- An on-line survey distributed to the membership of the peak trade organisations on the supervisory board of AITTIDF;
- An industry workshop open to the public (publicised via the peak trade organisations and the CCES website) held at the facilities of ECA in Sydney on 27 September 2017;
- A series of interviews with Australian exporters and importers, with results collected and summarised in case study reports (see Annex 2).

Information gathered from these three initiatives is summarised below, and largely confirms the findings reported by KPMG. Similarly, our experience also replicated the “difficulties in attracting sufficient business participation” cited in the KPMG study.¹³¹

8.1. Industry Survey & Workshop

A series of Single-Window related questions were prepared in an on-line survey format, which was distributed via a number of peak trade organisations (with membership consisting of either exporters, importers or trade service providers) to their Australian membership base that represents a large body of potential participants. The response rate was very disappointing, with only seven responses received, and several of these only partial. Due to this low response rate, results cannot be deemed to be statistically significant, and response rates for some questions were so low as to be

irrelevant. For informational purposes, however, we include a selection of questions asked and responses:

- (Question 6) Do (import/export) transactions involving more than one agency result in extra costs in terms of duplicated filing/application/declaration requirements, duplication of data requested in such documents, duplicated examination requirements or other administrative inefficiencies? Yes: 2; No: 4
- (Question 7) Do transactions involving more than one agency result in time delays due to duplicated filing/application/declaration requirements, duplication of data requested in such documents, duplicated examination requirements or other administrative inefficiencies? Yes: 5; No: 0
- (Question 8) Do you have the impression that that the import/export regulatory processes noted in your responses could be improved through better use of information technology, e.g. use of automatic processing, electronic documents, internet filing, etc? Yes: 5; No: 0
- (Question 11) Had you heard of the “single window for trade” concept prior to being requested to participate in this survey? Yes: 4; No: 1

The 27 September 2017 workshop was publicised via the same channels described above, with six participants taking part - three coming from peak trade organisations representing their (service provider) interests, one from a freight service provider, one from a large accounting/consulting firm, and one from a software/business service provider active in the trade sector. While the numbers were low, the participants demonstrated a very good understanding of the concept of a Single Window and clear ideas as to its potential benefits. The meeting generated a good level of discussion from which the following salient comments can be gleaned:

- The ICS is focused on government reporting and compliance and is not at all facilitation focused; it is overdue for systems update as the volume of trade is increasing.
- Currently the ICS is transaction based and not able to differentiate among different categories of trader (e.g. trusted traders) and apply different treatments based on risk status.
- DIBP/ABF have acknowledged these concerns regarding ICS.
- Any Australian Single Window project needs a champion at a high political level in order to succeed.
- The KGH study on the Canada & New Zealand versions of Single Window provide good potential models for Australia to follow.
- Cost recovery on import declarations suggested as the best way to fund innovations such as Single Window.
- Relevant government agencies need to get together with the private sector to explore the potential breadth of a Single Window and the issues it could/should embrace.
- ANCTF would be a good vehicle for this but what is needed is not only “what” the Single Window should be, but how it should be managed and implemented.
- The private sector (and to some extent government) is poorly informed on Single Window concepts.
- Industry is aware of government intentions to develop a Single Window, but to date has had little input in the process.
- Government must produce a tangible model for Single Window, preferably with a number of options before the private sector will react in any meaningful way.

- The private sector is less concerned about what a Single Window may or may not include, than how it will be implemented and managed. However, a trade information portal to help identify the myriad regulatory (and other) matters associated with international trade would be of significant benefit.
- The private sector needs to coordinate and interact among themselves better to effectively interact with government on Single Window.
- Recommend talking to Canada and other nations with successful Single Windows to learn more of their experiences—i.e. international benchmarking.

8.2. Industry Case Studies

A series of interviews on Single Window was conducted with 12 Australian companies from a variety of industry sectors; the majority were exporters but a number were importers or also had import operations. Many of the companies could be considered medium-sized enterprises, and most use service providers (broker/forwarders) to conduct their day-to-day international trading activities. The results of the sessions are collected in Annex 2, and provide an interesting set of snapshots into the diversity of Australian businesses now accessing international markets both for sales but also for sources of inputs into the products they manufacture locally. Particularly with the recent rapid growth of e-commerce, the world is a global marketplace, and Australian industry is realising the benefits of increasingly diverse international supply chains.

The overall messages received through these case studies is closely aligned with the findings of the KPMG study, with parallels in terms of the extensive use of service providers to navigate the regulatory maze, the issue of different or duplicative information required by multiple regulators, the lack of systems integration (with the exception of ICS and DAWR system), and the difficulties associated with accessing information on trade requirements in a multi-agency environment. A notable characteristic of the case studies is that in virtually all of them we see the company viewing the international trading challenges not in an agency-by-agency or even country-specific manner; rather, they view trade as an end-to-end process incorporating all of the steps needed to get their goods from origin into the hands of the customer in another country (or from a foreign source into their hands, if they are importing). In doing so, they often need to take steps to satisfy regulatory requirements in the country of destination, not just Australia—halal certificates, certificates of origin, etc.—and it is the sum total of all of these steps that add up to the cost of trading internationally.

These case studies demonstrate that Australian industry is already, in a very real sense, viewing trade in the way the TFA views trade: not agency by agency, but from a whole-of-government perspective, and not broken down into discrete processes governed by various uncoordinated pieces of legislation, but rather from the perspective of an end-to-end facilitated supply chain. The case study interviewees also almost consistently recognise that things could be better in terms of inter-agency cooperation and automation than they are today. The level of familiarity of these businesses with Single Window concepts like interoperability and coordinated border management may not have been high, but what they would like to see in terms of international trade facilitation appears to be very compatible with a Single Window implementation, especially one which incorporates a trade informational portal and provides a path to interoperability with the systems of Australia's trading partners.

9. Summary of Findings & Observations

1. Australia has a large number of regulatory requirements impacting cross-border goods movements, directly or indirectly administered and enforced by in excess of 40 agencies at the Commonwealth level, as well as others at the state level. With limited exceptions, the linkages between these agencies and DIBP are procedural in nature and not automated, often limited to *ad hoc* exchanges of information (whether on paper or in electronic documents) relating to items which the agency would like targeted by DIBP (whether in ICS or otherwise) at entry or departure, or the collection of ICS import information for post-entry review and enforcement action by the OGA.

Taking all of this into account, Australia would seem, at least at first glance, to have a border regulatory environment which could be seen as fertile ground for the process and trade facilitation improvements generally associated with national Single Window projects. Nevertheless, our interviews and follow-ups were unable to definitively identify to what extent government strategic priorities have changed since the 2005 “Standardised Data Set” exercise that included the analysis and options for an Australian Single Window (see Section 6.1 above), and they may still be quite relevant today.

2. While a few promising IT linkages do exist between other agencies and DIBP’s ICS, it is clear that these do not rise to the level where, looked at as a whole, they could fairly be characterised as an Australian Single Window for Trade. As noted in the KPMG study, the ICS system could be categorised as Stage A of the Single Window evolutionary model, and of the very limited number of agencies having linkages to the ICS system, of those surveyed only in the case of DAWR and NICNAS do these linkages rise to the level of Stage B in the Single Window evolutionary model.
3. From a risk assessment perspective, while some collaboration exists (see note on the Border Intelligence Fusion Centre in Section 7.2) clearly there is great potential for a more inclusive approach through an integrated Single Window system. Given current concerns about product safety, supply chain security and the reputation of Australia as a “clean and green” export destination, an integrated approach to risk assessment would appear to be very timely.
4. The TFA does not mandate that member countries establish a Single Window; as discussed in Section 5.2 above. Article 4.1 only provides that “Members shall endeavour to establish or maintain a single window”. Nevertheless, the TFA does include a number of mandatory provisions relating to border agency cooperation and transparency, implementation of which could be eased via and aligned with an Australian Single Window.
5. In terms of the key factors for any Single Window implementation (see Section 4.3 above), aside from the lead agency portion of Section 4.3.2, only very rudimentary steps appear to have been taken within government at this point to engage trade stakeholders in the current government deliberations (Section 4.3.5), and it is unclear whether and to what extent work has been done on any of the other factors.
6. Numerous border agencies have built their own IT systems, most on a stand-alone basis and not focused on border processes (DAWR being the notable exception in terms of the close linkages between its systems and ICS). Some have already initiated, or are currently planning, system linkages at the multilateral level (albeit not as part of the ICS system landscape). The agencies appear to be relatively satisfied with their existing systems, which,

although not part of any whole-of-government IT strategy, have been refined over the years and been the subject of considerable past investment, ongoing maintenance and, in some cases, planned further investment – e.g. DAWR Exports, ODC, DEC, NICNAS. The perceived consensus was that any Single Window would have to add to, not subtract from, the efficiency of these legacy systems.

7. In interviews held with the research team, border agencies were generally supportive of the idea of Single Window in principle, and (even where they were not directly involved in the IDCSW) were aware of the current government effort. In some cases, agency support comes with a clear caveat that the Single Window must not diminish the efficiency of their current systems (i.e. effectiveness in discharging their public policy charters and the quality and timeliness of the delivery of outcomes to their private sector stakeholders). This was particularly apparent in cases where the agency concerned considered their systems to represent best practice, which was unlikely to be matched, at least in the short- to medium-term, by a whole-of-government Single Window.
8. While the Coalition election platform promised an export Single Window and the Minister for DIBP and the Commissioner of the ABF have recently committed to an import/export Single Window, and while DFAT, DIBP and other agencies have apparently conducted research into a Single Window and have an ongoing internal government dialogue on the topic, it does not yet seem that those agencies leading the work (DFAT and DIBP) have built a compelling business case or financing model for a Single Window. A determination of what an Australian Single Window for trade should be, in terms of scope and coverage, seems not yet to have been achieved; there seems to be no “in principle” determination to proceed with a Single Window and, certainly, no advanced thinking on the technical design or structure of a Single Window.
9. Government has not yet seriously engaged with the private sector on Single Window, and our perception is that no clear strategy for engagement has emerged. While an SWWG was created, it seems to have been recently subsumed into a TFIWG and its precise current status is unclear. There is, as of yet, no specific focus on the topic in the ANCTF.
10. The feedback from the private sector confirms that the conditions cited in the KPMG study persist. While trade stakeholders report frustrations and irritations with duplicative and inefficient trade processes at a granular level, a relatively high proportion of these issues involve either requirements from the country of export or service provider-related problems which may not be alleviated by a Single Window. Moreover, many in industry are ill- or under-informed about the concept or potential features of a Single Window, and while they generally support the notion of some form of Single Window (with little appreciation of its potential complexity), their main concern is with the way in which such an initiative would be implemented and managed. In this regard, the focus is more on the “how” than the “what”. The exception to this is the identified need for some form of trade information portal.
11. At this point, it is possible that fine-tuning existing systems and inter-agency processes (in line with the mandatory requirements of the TFA) might deliver the improved efficiency and intra-agency coordination contemplated by industry more quickly and cost-effectively than building a Single Window, the latter being a “best endeavour” under the TFA. The prevailing industry view appears to be that, while a “best practice” Single Window may be desirable, its achievement is unlikely. However, recognising that options are being considered within government, a clear message from the private sector is that there needs to be a disclosure

of the government agenda for the Single Window and meaningful engagement with industry at a stage that is early enough to enable industry opinion to influence the way forward.

10. Recommendations

As a developed country which strongly supported the TFA and ratified it early on, Australia needs to carefully consider its implementation priorities under the treaty. With the TFA requiring only an “endeavour” to create a national Single Window, and no firm mandate to do so, Australia may wish to postpone such a daunting project until after it has performed a comprehensive assessment of its compliance with the TFA’s mandates. In this regard, while the multi-agency border regulatory environment in Australia would appear to provide a good foundation for efficiency gains in cross-border trade via a Single Window, Australia may be better served by first laying the groundwork for such a system by focusing on improvements in cooperation among agencies, transparency, and other mandatory TFA provisions.

If a decision to progress implementation of a Single Window is made, the project should reflect the insights from the 2005 exercise (discussed in Section 6) which included the following options:

- a) Implement an Australian Standardised Data Set in a phased manner as agencies redevelop relevant IT systems so that an important precursor to Single Window is in place based upon international standards (i.e. a form of national data harmonisation).
- b) Establish an electronic entry point for all Australian regulatory trade data as a limited front end Single Window development that would have minimal impact upon existing business or government IT systems.
- c) Implement a fully-functional domestic Single Window system (a system that, if implemented today, would fully align with the ATF requirements) to manage all relevant regulatory data, integration of risk assessment and reporting into a single IT application with interconnectivity to maritime port community systems.
- d) Build an internationally interoperable Single Window enabling cross-border B2G and G2G data exchanges that would imply a significant enhancement to Options b or c.

Any decision to implement a national Single Window should also appropriately address the key success factors noted in Section 4.3 above, incorporate international best practice, and be in conformity with relevant international standards to enable interoperability and conform to the TFA requirements on border agency cooperation.

While private sector support and engagement has proved to be an essential factor in any successful Single Window implementation, the impetus for a national Single Window for Australia needs to come from government, as do the initial proposals on scope, timeline, budget, and system architecture. Once these have been formulated, they should be made public at an early stage and private sector stakeholders should be brought into the discussion, with the expectation that any Australian Single Window should be able to demonstrate a positive effect on the Australian economy by facilitating cross-border trade in goods. This recognises the need for meaningful engagement with industry at a stage that is early enough to enable industry opinion to influence the way forward.

The ANCTF provides the ideal forum for government/private sector dialogue on a Single Window project, and should be involved in planning, monitoring, and decision-making from project inception through implementation and post-implementation stages to ensure that any Australian Single Window for trade is aligned with TFA objectives.

The following recommendations are made:

Recommendation 1: That, prior to committing to implementation of a national Single Window, Australia should first lay the groundwork for such a system by focusing on improvements in cooperation among agencies, transparency, and other mandatory provisions of the WTO TFA.

Recommendation 2: That, regardless of whether implementation of a Single Window proceeds, a trade information portal be developed to support industry in identifying the myriad regulatory (and other) matters associated with international trade.

Recommendation 3: That, if a decision to implement a national Single Window is made, a series of options should be proposed ranging from a relatively modest approach built around process improvements to a much more aspirational – and expensive – cross-border interoperable Single Window application that incorporates all domestic import/export data needs and also incorporates integrated risk assessment. The choice of options should explicitly incorporate funding models, and any model chosen must be sustainable for the long term and incorporate measures to adequately address inevitable ongoing regulatory and technological change.

Recommendation 4: That, if a decision to implement a national Single Window is made, it should take account of the existing IT landscape across the agencies with border responsibilities, and, to the extent possible, incorporate and build upon effective solutions and processes which currently exist in an evolutionary manner.

Recommendation 5: That, if a decision to implement a national Single Window is made, the initial proposals on scope, timeline, budget, and system architecture should be made public at an early stage, and that industry input be sought through a forum such as the NCTF in a manner that enables industry opinion to influence the way forward.

Recommendation 6: That, if a decision to implement a national Single Window is made, it should incorporate international best practice, and be in conformity with relevant international standards to enable interoperability and comply with the TFA requirements on border agency cooperation.

11. Annexes

Annex 1: Supplementary Information on Blockchain

Introduction

It is claimed by some that Blockchain technology will do for transactions what the Internet did for information by allowing increased trust and efficiency in the exchange of information. It is a system that facilitates the process of recording transactions and tracking assets (physical or virtual) in a network and it is particularly valuable at increasing the level of trust among network participants. Because every transaction builds on every other transaction, any corruption is readily apparent, and all parties are made aware of it. This self-policing can mitigate the need to depend on existing legal safeguards and sanctions to monitor and control the flow of business transactions.

In a Single Window environment which is characterised by sensitive and commercial-in-confidence exchanges of data amongst a large number of government and industry parties, something that could enable increased certainty and trust in the process would be of a significant advantage. It is too early to be able to say with confidence that this is the case, but the mention of Blockchain in this report acknowledges that potential.

Where third-party oversight is required, Blockchain reduces the burden on the regulatory system by making it easier for auditors and regulators to review relevant transaction details and verify compliance - that is, it eliminates the need for a trusted party to facilitate digital relationships. In a complex system such as the international supply chain or a Single Window environment with many actors and even more transactions, there is clear potential for this technology to solve some existing challenges in terms of trust, authentication and integrity of exchanges.

Technology

Blockchain is not a new technology, rather, it is a combination of three current technologies applied in a new way, namely private key cryptography, a distributed network with a shared ledger and an incentive to service the network's transactions, record-keeping and security.

The type, amount and verification can be different for each Blockchain. It is a matter of the Blockchain's protocol – or rules for what is and is not a valid transaction, or a valid creation of a new block. The process of verification can be tailored for each Blockchain. Any needed rules and incentives can be created when enough nodes arrive at a consensus on how transactions ought to be verified. Those rules would be the provenance of border regulatory agencies in a Single Window environment.

Databases

Centralised databases keep information that is up-to-date at a particular moment. Blockchain databases are able to keep information that is relevant now, but also all the information that has come before. Blockchain technology can create databases that record their own histories that grow over time while also providing a real-time record.

Distributed Ledger

In its simplest form, a distributed ledger is a database held and updated independently by each participant (or node) in a large network. The distribution is unique: records are not communicated to various nodes by a central authority, but are instead independently constructed and held by every node. That is, every single node on the network processes every transaction, coming to its own conclusions and then voting on those conclusions to make certain the majority agree with the conclusions. Once there is this consensus, the distributed ledger has been updated, and all nodes maintain their own identical copy of the ledger. This architecture allows for flexibility that goes beyond being a simple database.

Authentication and Authorisation

Trust is a risk judgement between different parties, and in the digital world, determining trust often boils down to proving identity (authentication) and proving permissions (authorisation). Put more simply, we want to know, 'Are you who you say you are?' and 'Should you be able to do what you are trying to do?' In the case of Blockchain technology, private key cryptography provides an ownership tool that fulfils most authentication requirements. Possession of a private key is ownership. It also spares a party from having to share more personal information than they would need to for an exchange, leaving them exposed to hackers. Authentication of transactions alone is not enough. Authorisation – for example, having the right to access certain data, broadcasting the correct transaction type, etc – needs a distributed, peer-to-peer network as a starting point. A distributed network reduces the risk of centralised corruption or failure. This distributed network must also be committed to the transaction network's recordkeeping and security. Authorising transactions is a result of the entire network applying the rules upon which it was designed (the Blockchain's protocol). Authentication and authorisation supplied in this way allow for interactions in the digital world. This means that authentication and authorisation, vital to digital transactions, are established as a result of the configuration of Blockchain technology and this idea can be applied to any need for a trustworthy system of record.

Smart Contracts

A smart contract is an agreement or set of rules that govern a business transaction; it's stored on the Blockchain and is executed automatically as part of a transaction. Smart contracts may have many contractual clauses that could be made partially or fully self-executing, self-enforcing, or both. Their purpose is to provide security superior to traditional contract law while reducing the costs and delays associated with traditional contracts.

Issues for Governments

Governments have an interest in all three aspects components of Blockchain technology.

Firstly, there are ownership rights surrounding cryptographic key possession, revocation, generation, replacement, or loss. They also have an interest in who can act as part of a Blockchain network and they have an interest in Blockchain protocols as they authorise transactions. This is because governments often regulate transaction authorisation through compliance regimes, which is of particular importance with goods declarations and similar B2G exchanges that typify a Single Window environment.

This legal and policy question is acutely important and is most unlikely to be resolved quickly given the complexity of the technology and the legal questions involved.

Blockchains can be permissioned or permissionless. With a permissioned Blockchain, each participant has a unique identity, which enables the use of policies to constrain network participation and access to transaction details. It is likely that Governments would expect the kind of identity management/control a permissioned Blockchain might allow.

Beyond just being a trusted repository of information, Blockchain technology could enable regulatory compliance in code form – in other words, how blocks are made valid could be a translation of government legal requirements (such as border regulatory legislation) into digital code. Blockchain technology can be calibrated to permit transactions or report transactions of a certain type according to exact rules. This means that government border regulatory agencies could automate regulatory reporting or transaction authorisation.

Smart contracts have the potential to use information and documents stored in Blockchains to support complex legal agreements.

Problems

Blockchain has become overhyped, when, in reality, the technology has limitations and is inappropriate for many digital interactions. The following are some issues:

- a) Complexity - Blockchain technology involves an entirely new vocabulary that has made cryptography more mainstream, but the highly specialised industry is full of jargon.
- b) Network size - Blockchains (like all distributed systems) are not so much resistant to bad actors as they are 'antifragile' – that is, they respond to attacks and grow stronger. This requires a large network of users, however. If a Blockchain is not a robust network with a widely distributed grid of nodes, it becomes more difficult to reap the full benefit. There is debate about whether this a fatal flaw for some permissioned Blockchain projects.
- c) Transaction costs, network speed - Bitcoin currently has notable transaction costs after being touted as 'near free' for the first few years of its existence. As of late 2016, it could only process about seven transactions per second, and each transaction cost about \$0.20 and can only store 80 bytes of data.
- d) Human error - if a Blockchain is used as a database, the information going into the database needs to be of high quality. The data stored on a Blockchain is not inherently trustworthy, so events need to be recorded accurately in the first place. The phrase 'garbage in, garbage out' holds true in a Blockchain system of record, just as with a centralised database.
- e) Unavoidable security flaw - there is one notable security flaw in bitcoin and other Blockchains: if more than half of the computers working as nodes to service the network tell a lie, the lie will become the truth.
- f) Politics - because Blockchain protocols offer an opportunity to digitise governance models, and form a different governance model, there have been public disagreements between different community sectors.

Summary

Blockchain is very much the technological issue of the moment and its potential application is the subject of intense conjecture. Single Window environments are extremely complex interactions of multiple parties, legislative domains, information exchanges and procedures. At first glimpse, there appears to be some potential for Blockchain to revolutionise all international supply chain operations, including border regulation. Nonetheless, governments are typically cautious when it comes to border management and it is highly unlikely that something as new and untested as Blockchain can have an immediate impact on possible Single Window options in the short to medium term. Clearly the technology has the potential to change all that and developments must be kept under notice and review.

Annex 2: Industry Case Studies

Single window case study: AussieBum

Certificate/permit required	Issuing organisation	% of all exports
Certificate of Origin	NSW Business Chamber	0 – 20%

AussieBum exports men’s swimwear, underwear and other items of clothing from Sydney.

AussieBum is heavily focused on exports, which account for around 90% of its revenue. It is one of Australia’s leading ecommerce companies: around 85% of its sales are business-to-consumer (B2C) and 15% business-to-business (B2B).

Exports

Export process

AussieBum’s biggest market is North America, accounting for around an eighth of its exports.

For ecommerce sales, AussieBum sends sales direct to consumers, wherever they may be. Due to the logistics networks in countries like the US and United Kingdom, it is cheaper for AussieBum to send sales directly to consumers, rather than warehousing stock in-market. This also fits in with AussieBum’s ‘just-in-time’ manufacturing process.

AussieBum uses a freight forwarder for its B2B sales, and Australia Post for its B2C sales. All of AussieBum’s exports are via air freight. For ecommerce sales, ownership of AussieBum’s products transfers as it leaves its warehouse (ex-works). For traditional exports, it exports FOB.

Export certification and documentation

AussieBum’s exports over \$2000 (usually a box of goods) require an export declaration number, which its freight forwarder arranges. Where it claims a preferential tariff, it requires a Certificate of Origin (CoO).

AussieBum finds the process of obtaining a CoO cumbersome. It downloads and completes the form, then prints it out, scans and sends to the NSW Business Chamber. The Chamber prints, stamps and signs, then express posts back to AussieBum. AussieBum has found there can be delays in the Chamber processing CoOs, which have interrupted consignments.

The majority of AussieBum’s exports are well below the \$2000 threshold for requiring an EDN, and are sent via post. For these parcels, AussieBum needs to complete a Customs Declaration CN23. Any parcel must include two copies of the CN23 form, which are manually stuffed in a see-through plastic sleeve affixed to the envelope. This is a fiddly process, significantly slowing down AussieBum’s otherwise speedy fulfilment.

AussieBum experiences difficulties due to the conflicting CN23 forms requirements for DIBP compared to the importing market’s customs. DIBP requires the consignment value to be in AUD, where the importing country requires it in the importer’s currency. This leads to errors in applying de minimis thresholds. AussieBum gave the example of a consignment to the United Kingdom (UK) worth AUD 20 (around GBP 12). While the UK customs de minimis value for VAT is GBP 15, UK customs officials would interpret the AUD 20 value of the good as GBP 20, and AussieBum’s customer would be charged VAT. While it was the end customer paying the VAT, it reduced the likelihood of repeat business from that customer.

Despite AussieBum comfortably satisfying rules of origin for Australia's Free Trade Agreements (the high-value stages of the manufacturing processes are done in Australia), the cost of obtaining CoOs meant that FTAs were irrelevant to AussieBum's ecommerce sales. Due to low de minimis thresholds in many countries (for example, China, Chile, Indonesia and Thailand all have de minimis thresholds under USD 30), AussieBum's customers were required to pay tariffs. This will also be the case for Canada and Mexico if the TPP 11 is implemented (with thresholds of CAD 20 and USD 50 respectively).

Imports

AussieBum imports around 40 to 60% of its manufacturing inputs, such as fabric, yarn and elastic (worth \$1-2 million per year). AussieBum's freight forwarder takes care of all its import documentation.

Implications of a single window for AussieBum

For its traditional export consignments, AussieBum supported the concept of a single window, especially given its frustrations with the process for obtaining CoOs.

Additionally, even with the very simple documentation requirements of its ecommerce exports, there were possible benefits for AussieBum from a single window.

The biggest benefit would be if a single window could significantly drive down the costs of obtaining a CoO. This would enable AussieBum to charge lower prices in FTA markets that have low de minimis thresholds. While prices reductions would likely be small in absolute terms, they would increase demand for AussieBum's products.

AussieBum would also benefit if an Australian single window were able to share information with a trading partner. This would allow accurate assessments of whether consignments fell under the de minimis threshold, eliminating mistakes (like customers incorrectly being charged VAT).

Single window case study: Bottles of Australia

Certificate/permit required	Issuing organisation	% of all exports
Certificates of origin	Canberra Business Chamber	0 – 20%

Canberra based company Bottles of Australia (BoA) has been providing customised drink bottles since 1991.

BoA designs its own bottles, contracts a Sydney-based manufacturer to make those bottles, then brings the bottles to Canberra for printing, assembly and distribution.

Faced with cheaper rivals in China, BoA’s value proposition is its reliability, the quality and safety of its bottles, and the accuracy of its printing.

Exports are heading for around 10% of BoA’s revenue, and it sees significant future potential.

It has two distinct export strategies.

- Its original strategy was a market-based approach. This involved making a multi-year commitment to developing Korea as a market. The relationships BoA cultivated through its market development are still bearing fruit, with Korea being an ever-increasing export market.
- Its more recent strategy was to develop a relationship with a large multinational—Puma— and export as part of Puma’s value chain.

Exports

Export process

The plastic water bottles BoA produces are low value, with a very low weight compared to their volume. Except for samples or urgent orders (where they use air freight), BoA sends its products via sea.

For sales to Puma, ownership passes from BoA to Puma at the time of boarding the ship (FOB). For other buyers, BoA’s preference is for ownership to pass when the product leaves BoA’s premises (Ex-Works) or when delivered to the customer’s freight forwarder (FCA).

BoA’s bottles must meet food-grade container standards. As there is no uniform international standard, it must comply with multiple, inconsistent national standards. For some markets (such as Japan) products must be re-certified with the most minor changes (e.g. different colour bottles).

Export certification and documentation

BoA’s freight forwarder processes export declaration numbers (EDN) on BoA’s behalf, and passes the cost to BoA and adds a processing fee.

BoA uses Certificates of Origin (CoOs) to access preferential tariff arrangements or when required by an importing government for other reasons. (Many exports on behalf of Puma require Certificates of Origin, but exports to Korea do not—baseline tariffs are 0% so there is no need to use KAFTA.)

BoA arranges its own CoOs from the Canberra Business Chamber. This involves the CEO printing off the completed form, driving the 20 minutes (around 20 km) to the business chamber, having the form stamped, and driving back. The process takes around 50 minutes.

While some export orders come with a long lead-time, BoA cannot process CoOs in bulk— CoOs can only be completed and stamped when the shipping details are known. As a result, BoA can only arrange CoOs for consignments in the near future.

For BoA, a typical consignment would be a pallet of bottles. The cost for the forwarder to move the pallet from Canberra to Port Botany is around \$85. By contrast, the cost of obtaining the EDN and CoO is \$85, not including the time and opportunity cost of the CEO's 50-minute trip to get a stamp on the CoO.

Participation in Australian Government programs

BoA is exploring the possibility of becoming a Trusted Trader working in conjunction with PWC. BoA engages the services of Austrade and Efic, as well as the Department of Industry, Innovation and Science's Entrepreneurs Program. Drawing on the expertise of each department and area to help grow and develop a better business strategy.

Implications of a single window for BoA

Although BoA's documentation requirements are not complex, they place a relatively large cost burden on BoA—half the cost of getting the goods to the buyer.

Indeed, for a typical consignment, documentation could account for as much as 3% of the FOB cost.

For an exporter of low value goods, especially one for whom consignments cannot be arranged in bulk (most consignment sizes and timings are set by a large buyer), these costs are a major competitive disadvantage.

Only requiring documentation from one agency means there is no duplication involved in BoA's export process. However, a single window that simplified the processes and lowered the costs of documentation could make a tangible difference to BoA's profits from its export activities and/or a direct advantage to the buyer. Either way it would add value to BoA, enabling it to further grow its export business into the future.

Single window case study: Brookfarm

Certificate/permit required	Issuing organisation	% of all exports
Certificates of origin	NSW Business Chamber	60 – 80%
EX188	Department of Agriculture and Water Resources	60 – 80%

For 17 years, Brookfarm, in Northern NSW, has grown macadamia nuts which it uses as the key ingredient into its own muesli, granola, trail mix, muesli bars and other products.

With a company philosophy to focus on independent grocers in Australia, Brookfarm has identified the need to develop export markets in order to grow.

Since making a firm commitment to exporting three years ago, Brookfarm has grown exports as a proportion of revenue from around 3% then to 23% now.

Exports

Export process

Brookfarm’s biggest export markets are Japan and Taiwan, which account for around half its exports. It also exports to China, Malaysia and Thailand, and is looking to develop the US, United Kingdom and the European Union in the next few years.

Brookfarm exports FOB, and usually uses sea freight (except to Japan, where smaller orders and short turn-around times means it often needs to use air freight).

Brookfarm’s consignment sizes range from a couple of pallets to a container.

Export certification and documentation

When exporting, Brookfarm is usually required to provide an Export Declaration Number (EDN) from DIBP, a Declaration and Certificate as to Condition (EX188) from DAWR and a Certificate of Origin (CoO, in electronic format) from the NSW Business Chamber.

Brookfarm’s freight forwarder arranges the EDN. The forwarder’s charge to Brookfarm for this service is unclear: the forwarder bundles the EDN fee with the fees it charges for other (commercial) documents.

In the export process, Brookfarm must enter the same information four times: into its accounting software (for order management), an Excel spreadsheet (which it uses to populate templates for the commercial invoice, packing slip and shipper’s letter of instruction), the CoO online form and the EX188 template. (The forwarder must also duplicate this information when it fills in Brookfarm’s EDN.) Brookfarm is conscious of the need to ensure all document is consistent and correct, so has a rigorous process for double-checking all documentation.

Brookfarm has looked at purchasing a software package to streamline these processes into one. However, the software is expensive, and not a serious consideration for Brookfarm unless DAWR were to start issuing electronic EX188 forms.

Brookfarm experiences frustrations in generating the CoO and EX188 forms.

The NSW Business Chamber’s online portal for issuing electronic CoOs is cumbersome— Brookfarm has to play around with the text fields to make sure the certificate will be of acceptable

quality (e.g. putting one piece of information across two lines to ensure all the information is displayed adequately). Occasionally, a mysterious asterisk will appear on the form after submission, leading to the certificate application being rejected (and needing a new one to be done). The administrative time it takes to fill out the online form for an electronic certificate takes longer than for the Word template for a hardcopy CoO, but that is offset by the postage time for hard copies.

DAWR's Word template for EX188 forms also causes difficulties for Brookfarm. Brookfarm is unable to get the template to work (possibly because Brookfarm uses Macs), so Brookfarm must print off the form, manually complete it, then scan and email to DAWR's Brisbane office. DAWR will not take responsibility for return postage, so Brookfarm regularly sends 20 to 30 pre-paid, self-addressed envelopes for DAWR to use when returning the stamped EX188.

Brookfarm pays \$33 for the CoO, and \$79 for the EX188. It typically pays around \$40 to courier its export documentation to its importer.

Imports

Brookfarm imports some ingredients which are not available in Australia. Brookfarm's freight forwarder takes care of all the associated paperwork.

Implications of a single window for Brookfarm

Because of Brookfarm's typical consignment size, the cost of documentation is not a significant impediment. However, Brookfarm is conscious that costs multiply along the supply chain (as each participant takes a commission), so to keep its products competitive it aims to keep costs as low as possible.

Even though cost is not a major issue, Brookfarm still experiences significant frustrations when compiling its export documentation. The time and complexity of completing export documentation mean that staff need to go through formal training. Filling out the same information several times opens opportunities for mistakes, and it takes time to check everything.

Brookfarm would strongly support one system to provide its documentation needs. It wants to be able to enter one set of information, once, which could then populate certificates and EDNs.

Single window case study: Codan Limited

Certificate/permit required	Issuing organisation	% of all exports
Certificates of origin	Business SA	0 – 20%
Defence permit	Department of Defence	0 – 20%
Sanctions permit	Department of Foreign Affairs and Trade	0 – 20%

Codan is an Adelaide-based manufacturer of advanced electronics: radio communications equipment, metal detectors, mining technology and defence electronics.

Codan uses Customs Agency Services (CAS) as its freight forwarder and customs broker.

Exports

Export process

Codan's exports are high value, but relatively low volume. As a result, the majority of their exports are by air. Often the buyers it deals with (foreign governments or United Nations agencies) have little expertise in importing, and Codan has developed extensive experience in delivering its goods directly to the buyer (Incoterm: delivered at place).

Given Codan often exports to high risk environments (Sudan, Afghanistan, etc.) it has a significant amount of control over its export process. Its ability to export to challenging destinations is part of its competitive advantage.

For a representative shipment (worth USD 470 000), the regulatory costs to Codan were documentation of around \$500, and related management time cost of around \$500.

Defence export controls and sanctions compliance

The main regulatory challenge for Codan is obtaining permits from the Department of Defence (Defence) when exporting defence controlled goods, and from the DFAT when exporting to sanctioned countries.

Due to the products Codan exports, and the markets it exports to, Codan is not able to obtain an Australian General Export Licence (AUSGEL) from Defence.

While Defence usually responded within specified timeframes when providing a permit, DFAT had no service timeframes for sanction permits. Approvals could take significant time: up to eight weeks. This was the case even when DFAT had, in the last six months, granted Codan a permit to ship the same product to the same buyer in the same location.

There were significant inefficiencies in the instances when both Defence and DFAT permits were required for the same export. Defence and DFAT had different processes and systems, and on occasion both would independently request the same information for the same shipment. Although both processes were independent, the outcomes were linked, with Defence requiring a DFAT permit before it could issue its permit.

Codan could not confirm the orders with the buyer until Codan had obtained the applicable permits from Defence and/or DFAT.

While relatively few exports consignments require DFAT and/or Defence permits, they are required for some of Codan's highest value consignments. Given the importance of these permits to Codan, it works hard at maintaining a good relationship with these departments and ensuring

they have all the information they need to issue the permits.

Participation in Australian Government programs

Codan is a Trusted Trader and is in the process of becoming a Known Consigner. The administrative burden of applying for both programs was relatively minor, but Codan needed to make significant physical and procedural changes to participate in both.

Certificates of Origin

Codan uses preferential tariff arrangements when possible (although many customers are national governments, and exempt from paying tariffs). Nevertheless, Codan provides certificates of origin for roughly one third of their consignments. Codan obtains electronic certificates of origin from Business SA (using the TridentGlobal documentation system). These are used when claiming a preferential tariff, or when the importer is licenced (specifying which country they can import from).

When exporting to some countries (mostly those in the Gulf Cooperation Council), Codan must get DFAT to sign the CoO (and other documentation) to verify its authenticity and then courier to the importing country's embassy to verify DFAT's verification. (DFAT's Adelaide office provided this service efficiently.)

Imports

Given Codan's manufacturing inputs are not subject to import controls or other sensitivities, it leaves the import process to CAS.

Implications of a single window for Codan

Codan felt that where export processes required more than one agency, the process was inefficient and duplicative. It felt greater collaboration and data-sharing would streamline the export process, reducing time and costs. It felt a single window would help its business.

A single window would provide marginal—rather than transformative--benefits for Codan's exports. However, while a small relative cost, in absolute terms the compliance costs for a representative export shipment are high (around \$1000).

The greatest value of a single window to Codan would be if it included DFAT and Defence. Bringing those two departments into one interface would ensure each are aware of the other's data requests, meaning they don't need to request the same data twice. Not only would this lead to a lower administrative burden on Codan, it would speed up the departments' internal processes and likely lead to better collaboration.

Including CoOs in the single window, with government verification, would mean Codan would not need DFAT to verify its CoOs, removing a step in the export process. Because CAS look after its imports, the advantages a single window offer to Codan's import are unclear.

Single window case study: Commodity trading company

Certificate/permit required	Issuing organisation	% of all exports
Certificate of Origin	NSW Business Chamber	20 – 40%
Export Permit	Department of Agriculture and Water Resources	40 – 60%
Phytosanitary certificate	Department of Agriculture and Water Resources	40 – 60%

This trading company is an exporter of agricultural commodities (mostly grains, seeds, and animal and vegetable proteins) from Australia into the world market.

Exports

Export process

The trading company exports around 300,000 tonnes per year, currently only shipping full container loads but planning to also move into bulk shipments in 2018.

As a trading company, the exporter works on high volumes and low margins. The exporter's payment terms are payment against documents, and is tightly financially geared, so any hold-ups in the export documentation—and subsequent delays in payment—will result in financial losses for the exporter.

Export certification and documentation

Given the diversity of the commodities the exporter trades, it has a range of different document requirements. The most common are:

- export declarations
- export permits
- phytosanitary (phyto) certificates
- certificates of origin.

Time is a key consideration for the exporter. Anything that adds time to the documentation process—even filling out the same information into multiple forms—causes it problems.

Depending on timing, the exporter may need same-day courier services to return original documentation from certifiers which, in Sydney, can get very expensive.

A particular pain-point for the exporter is if its needs the embassy or consulate of the importing country to legalise the document. Before the diplomatic staff will legalise the document, they require DFAT to sign it. In turn, DFAT needs the document to be signed by a notary (if the original certificate was not generated by an Australian Government agency). The costs of this process of compounding approvals can be around \$500 per certificate.

Perhaps more importantly, it adds the potential for delays to the exporting process.

Implications of a single window for the commodity trading company

For the exporter's business model, more data entry, more agencies involved, and greater complexity, leads to increased financial risk.

The exporter uses the DAWR's EXDOC system, and sees that as a good starting point for cooperation. But the exporter's fast paced operations and little room for delays means EXDOC alone is not enough.

The exporter is very supportive of the concept of a single window system that could bring together all agencies involved in the export process—including those issuing certificates of origin. The exporter would also get real benefit if commercial documentation could be included, to further increase efficiencies and minimise the potential for error.

The exporter would also highly value only having to deal with one area when things go wrong. On these occasions it has to deal with multiple agencies at the same time, often to address the same thing.

By speeding up and simplifying export documentation processes, the exporter anticipates there would be genuine benefits to its bottom line.

Single window case study: Major processed food exporter

A major processed foods exporter, based in NSW, exports to over 40 other markets and manufactures in three other countries. But some of its export business has been reactive—reacting to demand rather than proactively developing markets.

Exports

Export process

While the exporter's products are positioned in the premium end of the food category, compared to other export categories they are relatively low value and high volume.

The exporter has put in considerable effort to minimise the costs it faces in exporting. It is able to use its scale in the Australian market to put downwards pressure on trade costs, including logistics.

Export certification and documentation

The exporter uses Certificates of Origin to access preferential tariff arrangements or when required by an importing government for other reasons (e.g. when needed to comply with an import licence).

Some markets require the exporter to obtain an EX188 certificate (DAWR-issued Declaration and Certificate as to Condition).

The exporter's freight forwarder handles the documentation for these certificates, as well as the electronic declaration number (EDN). The forwarder charges an administrative fee for generating these documents. While small relative to the shipment values, documentation costs make up around 5% of the cost of getting the product to port.

Although its export volumes are large compared to SMEs, as a relatively small team dealing with relatively *ad hoc* exports, the exporter sees export documentation as too burdensome to deal with in house. If/when its export profile changes, it will consider bringing documentation in-house as a way to further drive down costs.

Participation in Australian Government programs

The exporter does not participate in the Trusted Trader program but is interested in participating in future, particularly as further mutual recognition agreements are signed.

Imports

While it manufactures the vast majority of its products with Australian-grown produce, the exporter does import some inputs (mostly nuts, due to lack of domestic supply).

Imports are a relatively small part of the exporter's business. Given this, it relies on its freight forwarder to facilitate its imports.

Implications of a single window for the exporter

Since its freight forwarder handles most of the export and import documentation, the exporter has relatively little engagement with regulators.

However, the driver for their freight forwarder dealing with this export documentation is neither strategic, nor due to operating efficiencies. It is because these documents impose too great an administrative burden for the exporter.

The value to the exporter from a single window would be cost reductions: either directly (paying less for certificates), or indirectly (simplifying processes to enable it to bring documentation in-

house).

The exporter exports high volume, low value goods in bulk. It has a considerable focus on keeping costs to a minimum, with an eye to ensuring its products are as competitive in- market as possible. In this context, anything that can help it reduce costs will be of value.

Single window case study: exporter of organic meat

Certificate/permit required	Issuing organisation	% of all exports
Certificate of Origin	Queensland Business Chamber	40 – 60%
Halal Certificate	Various	40 – 60%
Health Certificate	Department of Agriculture and Water Resources	100%
Organic Certificate	National Association for Sustainable Agriculture, Australia (NASAA)	100%

The exporter of premium organic meat is based in Brisbane-based and has been exporting for around 20 years.

Exports

Export process

The business exports around the world, its major markets being the US, Middle East and Asia.

It exports CIF, and looks after all of its documentation requirements. It is an export accredited establishment for meat.

Export certification and documentation

The exporter has complex documentation requirements. In addition to an export declaration number (EDN) it can require:

- certificates of origin (CoO)
- health certificates
- halal certificates
- organic certificates.

The exporter uses the software program Buy Sell Move (BSM) Global to produce its documents. Since using this program, the exporter has cut down its documentary administration time from 2.5 hours per consignment to 20 minutes. But this time-saving comes at a cost: in addition to a high an upfront licence fee, the exporter pays a monthly subscription and a charge per consignment.

Standard documentation costs are expensive. Whether it's a pallet or a container, documentation could typically cost around \$500. This includes:

- between \$100 and \$300 for halal certificates (depending on the number of cartons)
- \$70 to courier the documents to the importer
- between \$50 to \$80 for an organic certificate (depending on the number of cuts, multiple certificates may be required)
- \$49 for a health certificate

- \$38.40 for a certificate of origin
- a fee to BSM Global per consignment
- \$15 to have the health certificate couriered from DAWR
- \$0 for the EDN.

The process for CoOs is independent, but the exporter's remaining certificate requirements are linked to the Department of Agriculture and Water Resources's (DAWR) request for permit (RFP) number. The exporter raises the RFP through DAWR's EXDOC system. This RFP is the trigger for a health certificate, an EDN, a halal certificate and an organic certificate.

In the RFP, the exporter must specify which halal certifier it will use (which changes depending on import market requirements). DAWR will send an electronic copy of the halal certificate to the exporter, which it will send to the certifier at the Abattoirs. The halal certifier delivers the stamped certificates to the freight forwarder. The exporter will arrange for a courier to collect the health certificate from DAWR's Brisbane office. The exporter receives the organic certificate electronically.

When everything goes right, the process works smoothly. But inevitably things go wrong for a variety of reason.

For example, all documents refer to the shipping details, and through no fault of the exporter's shipping arrangements often need to change. The exporter is then required to pay the same costs to have the documents reissued—except for the health certificate.

While the original health certificate costs \$49, re-issued health certificates cost \$500. As a result, the cost for the set of documents to be reissued goes from around \$500 to around \$1000.

It is not uncommon for the exporter to need several documents to be reissued per month.

Implications of a single window for the exporter

While it has developed very streamlined and efficient documentation processes, there is still scope for the exporter to benefit from a single window.

The exporter highlighted that with many moving parts, and multiple linked systems, there was an increased likelihood that things could go wrong.

The value for the exporter of a single window would be if it were able to simplify the process and lower documentation costs. In particular, any process that allowed documents to be reissued automatically and at a low cost would deliver real benefits.

Single window case study: Peoris Global Sourcing

Peloris Global Sourcing (PGS) is a specialist in cross border supply chain, and expedited clearance services, for fresh and premium Australian and New Zealand food and beverage products into the Asia-Pacific region.

PGS has secured an officially sanctioned 'green channel' into China for expedited clearance services for its clients' exports.

Exports into China

PGS highlights three main areas where Australian exporters experience problems in clearing their exports through Chinese customs:

- incorrect documentation
- non-compliance with regulations addressing products and/or ingredients
- non-compliance with packaging regulation.

Export certification and documentation

PGS's niche is helping its clients understand Chinese regulations for premium food and beverage, and securing expedited customs clearance for those products. Its focus is not resolving problems with documentation—this is a hinderance to its business.

PGS sees several areas where documentation causes problems with customs clearance in China. It notes that facing extremely high volumes, Chinese customs officials simply do not have the time to provide high levels of customer service if there is non-compliance.

If any information is incorrect or inconsistent, it opens the possibility of CIQ rejecting the consignment.

One common problem PGS saw was the weight of products being incorrectly listed on exporters' documentation. This would bring customs clearance to a halt and huge volumes of food and beverage would be wasted.

The weight of the exported goods are typically listed on the:

- export declaration
- certificate of origin
- health certificate (if applicable)
- phytosanitary certificate (if applicable)
- declaration and certificate as to condition (if applicable)
- packing slip
- bill of lading.

Only the export declaration, health and phyto certifiates are linked. The exporter (or its forwarder) completes remaining documents independently of each other.

If there are even minor discrepancies between the weights listed on any of these documents, or the weight listed on the forms is not the exact actual weight, Chinese customs might not clear the goods.

Implications of a single window

This is a small mistake that can have big commercial consequences. The process exporters must follow when generating these documents can contribute to exporters making this mistake.

There can be tight turn-around times between receiving the order, packing and shipping. Many exporters either do not have the time or the ability to weigh their consignments prior to completing their export documentation.

Some exporters, who use the 'build up' method of estimating the gross weight, may base this on an overestimation of how much product will fit, or orders may change at the last minute. Other exporters will rely on their freight forwarder to accurately weigh the consignment, which often happens after they have needed to submit applications for official documentation.

A single window could address this problem in two ways. First, it could reduce the potential for error by requiring official forms to be completed once (it could eliminate the potential for error altogether if it also linked to commercial documentation). Second, if a single window made documentation processes quicker (especially if it enabled electronic documentation) it could allow exporters to complete their documentation after the exact weight of the consignment is known.

Single window case study: RBK Nutraceuticals

Sydney-based RBK Nutraceuticals (RBK) was established in 1996. Its focus is on producing the highest quality health supplements, using premium Australian ingredients. RBK's five brands span both medicinal and non-medicinal products.

RBK has focused on exports from its inception, and exports account for around 80% of its revenue.

Korea has always been RBK's biggest export market, and remains so, but Middle Eastern and other Asian markets are growing in importance.

Exports

Export process

For most international customers, RBK's exports are FOB. However, for RBK Korea (an affiliated company), RBK exports are delivered at place. RBK air freights most consignments, however to minimise costs some buyers prefer sea freight.

As an exporter of pharmaceutical products, RBK must meet stringent registration, both in Australia and overseas.

In Australia, it must register with the Therapeutic Goods Administration (TGA), and pay an annual fee. (As RBK sells its products in Australia, the TGA charges a higher fee than if RBK exported only, but in both cases it must meet the same regulations.) RBK must also undergo an audit every 12-18 months to maintain its Good Manufacturing Practice (GMP) accreditation.

RBK must also register its products with its export markets' relevant food and drug administrations. This can be very costly and time-consuming. For China, the cost of product registration can be hundreds of thousands. For Saudi Arabia, the cost of registering a product is lower, but registration involves the exporter paying for Saudi officials to visit and inspect facilities.

Export certification and documentation

For regular exports, RBK must provide an EDN and, if claiming a preferential tariff or required by the importer's government, a Certificate of Origin (CoO).

RBK uses a freight forwarder to produce its EDN, paying around \$30 per EDN. It obtains CoOs from the NSW Business Chamber, which cost \$33 for the CoO plus \$6 for postage. Given RBK's products are low weight but high value, these documentation costs are relatively small.

However, the first time a product is shipped to some markets, in addition to a CoO, the importing government also requires a certificate of free sale and a certificate of GMP (showing TGA accreditation).

The certificate of free sale is \$43 and is issued by the NSW Business Chamber. The Certificate of GMP is issued by the TGA, and is \$170. For select markets (such as the Philippines, Vietnam and Saudi Arabia) these expenses can be significantly inflated, as importing governments require their embassy or consulate in Australia to stamp the certificates (in the case of Saudi Arabia, it the cost is \$250 per certificate). However, in order to stamp these documents, the embassy requires the Australian Government to stamp the document first, which is done by the Department of Foreign Affairs and Trade (DFAT, which charges \$80 per document). DFAT requires the documents to be certified by an Australian Notary Public, which charge around \$128 for the first signature and \$64 for subsequent signatures. (Because the Certificate of GMP is issued by the TGA, a government agency, it does not need to be notarised.) Except for the business chamber, which posts the CoO and Certificate of Free Sale, a representative from RBK hand-delivers the documents to be notarised, takes them into DFAT NSW, then goes back to DFAT NSW to collect the certificates once

stamped (certificates can take up to five days to be processed).

This is a combined cost of \$684 to get the CoO, Certificate of Free Sale, and Certificate of GMP to the point where the foreign government embassy will be able to sign them (for an additional combined cost of \$750).

Participation in Australian Government programs

RBK has used Austrade's services and is considering participating in the Trusted Trader program.

Imports

RBK imports its packaging and some ingredients (those that cannot be sourced in Australia). Their freight forwarder arranges the import process.

RBK uses the tradex scheme, administered by AusIndustry, to be exempted from paying duty and GST on goods that are imported and will be subsequently exported. As the majority of RBK's revenue is from export, this is preferable to duty drawback (where duty is paid and then reclaimed).

In the instances where imports were not re-exported, RBK must complete a four-page form by hand, itemising the duty to be paid and the goods they relate to. It must then scan or fax the form to AusIndustry.

Implications of a single window for RBK

In general, RBK's documentation requirements are relatively simple and, relative to the value of the goods, low cost.

However, exporting a new product (to some markets) for the first time can be costly and, as importantly, time consuming.

For those countries that require DFAT to stamp documents, the process is expensive, inefficient and bureaucratic. RBK populate the forms for the CoO and Certificate of Free Sale, which the NSW Business Chamber certify. Then RBK pays for the notary to sign that certification, then for DFAT to stamp that signature. RBK pays a fee to one arm of the Australian Government (TGA) for a certificate, then needs to pay another arm of the Australian Government (DFAT) to stamp that certificate.

A single window that could streamline this process and lower its cost would add significant value.

RBK is not alone. A large number of exporters need to go through this process, and some exporters need to do it regularly.

Single window case study: Royston Petrie Seeds

Certificate/permit required	Issuing organisation	% of all exports
Phytosanitary Certificate	Department of Agriculture and Water Resources	90%

A small, second-generation family business based in Wagga-Wagga, Royston Petrie Seeds (RP Seeds) has been exporting plant seeds for almost 40 years. RP Seeds exports Australian native, as well as non-native, plant seeds.

Exports

Export process

Exports represent around 10% of RP Seeds' business. Its major markets are the United Kingdom, Netherlands, New Zealand and South Africa, but in its 40 years has exported 'nearly everywhere'.

RP Seeds is now an ecommerce business, with virtually all its export orders received via its website. Around 90% of RP Seeds' exports are sent via air mail. Most export consignments range between 25g and 5kg, and it exports four or five times per week. Occasionally, RP Seeds sends consignments over one pallet, for which it engages a freight forwarder.

In order to export, RP Seeds is a registered establishment with the Department of Agriculture and Water Resources (DAWR). This costs \$3300 per annum, plus \$500-\$1300 for the annual audit. RP Seeds' consignments are generally too low to make it worth paying \$50 for a Certificate of Origin (RP Seeds is not a NSW Business Chamber member) and thereby claim a preferential tariff.

Export certification and documentation

DAWR's Manual of Importing Country Requirements (MICoR) plays a key role in the export process for RP Seeds. If a seed is listed in MICoR as needing a phyto certificate, then RP Seeds must raise an RFP (and usually the importer will require a permit from its government). It takes RP Seeds about five minutes to check MICoR.

But for niche products (such as seeds for sewing) MICoR is not exhaustive. So rather than risk breaching the importing country's regulations, RP Seeds goes to the relevant agency (in the importing country) to try to determine what documentation is required for each seed variety. This usually takes around 20 minutes per seed, but can be considerably longer.

Before DAWR will issue a phyto certificate, MICoR must list it as an importing country requirement. So if MICoR is missing the importing country's requirements, then RP Seeds must liaise with DAWR's EXDOC and MICoR teams to update MICoR, showing proof. (In the past, DAWR at times did not accept MICoR was wrong—now DAWR is more accepting.) It takes RP Seeds 15 minutes of administration to inform DAWR, then it must wait for DAFF to update MICoR. This can take up to 5 days.

If the consignment is under \$2000 in value (most are), and the seeds do not need a phyto certificate, RP Seeds can usually airfreight with just a CN23 form. Consignments over \$2000 will also require an export declaration.

If the consignment does need a phyto certificate (and most do), RP Seeds will advise the customer of the cost and process. RP Seeds passes on the cost of obtaining the phyto certificate to the customer, informing them the seeds will cost at least \$120 extra. It also tells them if they need an

import permit. RP Seeds estimates that around 25% of customers cancel their orders if a phyto certificate is required.

If an import permit is required, DAWR requires a copy before it will issue the phyto certificate. DAWR needs a version in English, and as some countries do not issue import certificates in English, RP Seeds has spent as much as \$270 on getting one document translated.

As an entity with DAWR approved arrangements (AA), RP Seeds' current process is to raise a request for permit (RFP) with DAWR. RP Seeds then complete a export compliance record and send to DAWR. This costs for RFP is \$60. DAWR will then issue the phyto certificate (for \$50) and express post to RP Seeds (\$6).

Since the AA program is closing, to continue exporting RP Seeds must move to an approved officer (AO) model. There is an upfront fee to RP Seeds of about \$4250 (\$500 in fees, plus \$3750 in training) as well as an annual levy of \$750 and monthly software fee of \$110. (This is in addition to the annual fee and audit fee for being a DAWR-registered establishment.)

RP Seeds being an AO will mean can raise the RFP itself, and not need to pay the \$60 to do this. But there is a monthly software licence of \$110 to enable this, and RP Seeds estimates the administrative burden in completing export documentation will increase by about an hour per consignment. It will still need to pay for the phyto certificate and postage. (That is, unless it is willing to buy the printer, software licence and certificate paper to print the certificates itself. Given the volume RP Seeds exports, this is unlikely to be economical.)

Currently, documentation for one consignment typically takes RP Seeds around 40 minutes and costs \$116. Under the AO model, it will take more like 100 minutes and cost \$56 (plus an additional \$2070 per annum).

Implications of a single window for RP Seeds

Exporting is a convoluted process for RP Seeds.

While a single window that simplified the process for a CN23, phyto certificate and EDN would be a positive, savings would be relatively minor.

RP Seeds does not suffer due to poor coordination between Australian Government agencies. The problem is coordination between the Australian Government and the importing government, as well as the process of obtaining a phyto certificate from DAWR.

The time and cost of obtaining a phyto certificate is high for RP Seeds, especially compared to the relatively low value of its exports. There would be major benefits for RP Seeds if a single window could streamline this process and lower cost. Linking an Australian single window with other countries would be particularly beneficial.

Reducing the time and cost of RP Seeds' documentation could lift its exports by up to 25%.

Single window case study: SalDoce

Sydney-based SalDoce has been making allergen-friendly and gluten-free foods since 2000.

SalDoce's biggest brand is YesYouCan, which includes baking premixes for breads, cakes, cupcakes, pancakes, pizza base, snacks and muffins. SalDoce also provides private label products for a major supermarket chain.

While important, the private label contract means one buyer has a high concentration of SalDoce's sales. As a result, SalDoce has been building its own brands, particularly in the export market.

Exports now account for around 30% of SalDoce's overall sales, and there is significant future potential.

SalDoce's focus is on getting its products into the premium supermarket chains across Asia, where it appeals to two categories of consumers. The first is western expats, who look specifically for gluten-free products. The second is wealthy locals (for whom coeliac disease is rare). These consumers put more emphasis on other product attributes, such as the overall health benefit of SalDoce's products and non-GMO ingredients.

Exports

Export process

SalDoce's major markets are New Zealand and the Philippines. For these markets, it exports several 20 foot containers of product per year. For other markets, it exports consignments of several pallets, often multiple times per year.

SalDoce exports its products FOB, and generally uses sea freight.

Food registration is one of SalDoce's biggest pain points. The process to get its products registered in a new market is long and cumbersome. Some markets, such as the Philippines and Indonesia take as long as 18 months.

Accreditation is another major pain point. SalDoce is accredited for halal, kosher and gluten-free. It is in the process of becoming accredited for non-GMO. However there are inconsistencies in what accreditations regulators and consumers will accept, adding significant costs for SalDoce. For example, to enter Indonesia, SalDoce needed to change their Halal Certifier, at the cost of around \$4,000. For non-GMO accreditation, US consumers look for the Non-GMO Project symbol (costing around USD 4,000), but Middle Eastern governments require accreditation to ensure compliance with European Union regulations (at a cost of around \$30,000).

Export certification and documentation

SalDoce's documentation requirements are an Export Declaration Number (EDN) from DIBP, a Declaration and Certificate as to Condition (EX188) from DAWR and a Certificate of Origin (CoO) from the NSW Business Chamber.

SalDoce's freight forwarder arranged the EDN, at a cost of \$40-50.

SalDoce arranged the CoO from the NSW Business Chamber. As a chamber member, CoOs cost SalDoce \$33, plus \$6 for postage. SalDoce send the certificate templates electronically, the chamber print, stamp and mail the hard copy certificates. SalDoce typically the certificate in two or three days.

The \$79 EX188 forms are the most problematic for SalDoce. As customer or packing requirements are changeable until shortly before shipping, SalDoce's consignments are packed around a week prior to shipping. The EX188 form requires the exact number of packages and the consignment's

weight, so SalDoce does not submit the form until packing is complete. (When it has submitted forms before packing, the details have changed and it has needed to submit new forms—doubling the cost). Since DAWR do not provide documents if consignments have been shipped, this gives SalDoce a short time period in which to arrange the form. A staff member picks up the completed hard-copy EX188 form from DAWR's Sydney office.

There is significant duplication in the information requirements across the EDN, CoO and EX188.

Overall, SalDoce's documentation fees can cost around \$160. For a small consignment, this can represent around 5% of the overall consignment value.

Imports

SalDoce imports some specialty ingredients, which aren't available in Australia. It's importer takes care of most import requirements. The importing pain points for SalDoce include:

- Customs inspecting the imports, requiring an inspection fee of around \$100
- their suppliers being reluctant to use an FTA
- requirements for writing on the packaging to be in English, despite it not being for retail sale.

Implications of a single window for SalDoce

Given the EDN, CoO and EX188 have duplicative information requirements, but are provided by different organisations, an ideal single window would supply all three documents for SalDoce.

A single window providing these documents would enable efficiencies that should allow for reduced costs and quicker turn-around time.

SalDoce would also highly value any changes that lifted the time pressures of receiving EX188 certificates.

SalDoce highlighted the fact that it was in a competitive international market, and was a price-taker. It could not raise its price when incurring additional costs within Australia, SalDoce had to absorb them.

Single window case study: Samex

Certificate/permit required	Issuing organisation	% of all exports
Certificate of Origin	Business SA or Arab-Australia Chamber of Commerce and Industry (AACCI)	60 – 80%
Halal Certificate	Various	60 – 80%
Health Certificate	Department of Agriculture and Water Resources	100%

Since its establishment in 1978, Adelaide-based Samex has grown into one of Australia’s biggest meat trading companies.

Samex trade a variety of meats: beef, sheep, lamb, goat, chicken, kangaroo and camel. Virtually all of Samex’s sales are exports. Samex has a meat processing facility, but around 95% of its meat comes from third-party suppliers.

Exports

Export process

Samex exports around 750 tonnes of meat every week, and services around 50 countries each year. Samex export mostly via sea freight. It does not use a freight forwarder, but books directly with the shipping lines.

Samex arranges for the supplier to take the meat to the port. It transfers ownership to the buyer at the point where its goods have cleared customs in the importing country.

Export certification and documentation

Documentation for Samex’s exports is a joint responsibility between Samex and its supplier. Even under this model, and with a documentation software solution, Samex has a team of three dedicated to documentation.

The supplier, rather than Samex, must raise the request for a permit (RFP) to export. In some cases Samex does raise the RFP for some suppliers. However, as Samex has the relationship with the buyer, the supplier transfers the inspected RFP to Samex, which completes the RFP. Samex will tell the supplier if a halal certificate is required, and if so, the supplier is responsible for triggering the halal certification process through the RFP. Samex will tell the supplier if a particular certifier is needed, depending on destination country requirements (or buyer preferences if multiple certifiers are allowed for that market). In a very few instances, the importing country recognises DAWR as a halal certifier.

The supplier is responsible for any of the charges to ensuring the goods are produced as halal (including the halal slaughterman, annual registration fees, etc.). Samex is responsible for printing the Halal Certificate, and getting it signed and stamped by the appropriate Islamic certifier. Samex pays the postage to and from the Islamic certifier’s premises along with the \$49 charge for the certificate itself.

Samex lodges the EDN to DIBP before lodging the RFP. Once Samex has lodged the RFP and needs to collect it, it has to enter all the health certificate numbers into a collection spreadsheet (in order to ensure Samex is given the correct certificates). Samex emails this spreadsheet to DAWR’s

EXDOC contact team, advising it plans to pick the certificates up later in the day. The EXDOC team then forwards that email to DAWR's Adelaide office.

Samex must then wait several hours before sending a courier to ensure the certificates are ready. (Despite this process, occasionally there are cases where Samex receives the wrong certificates or doesn't get the specific ones listed.)

The cost of the health certificate is \$49 and Samex's software provider charges a transaction fee of \$6 for the EDN (the fee is for electronically linking the software to DIBP's systems).

Separately to this process, Samex prints the Certificate of Origin (CoO) from its software system and couriers it to Business SA and/or AACCI for certifying. Business SA charges \$32 to certify each CoO, and AACCI charges \$35 (Samex is a member of both so gets discounted rates). Some specific CoOs, for use with particular FTAs, may have different prices. Due to the number of Samex's consignments, it is economical for Samex to arrange for the CoOs to be couriered back from Business SA and AACCI.

Some countries will require their embassies or consulates to legalise certificates (although Samex generally does not need DFAT to sign them beforehand).

Samex cites its meat exports to the US as current best practice. For these transactions, all certificates can be sent—and received by US officials—electronically. (However, it still finds that some buyers ask for hard copy documents.)

Implications of a single window for Samex

Due to the high volume of its exports, Samex has developed streamlined and efficient processes for its export documentation.

Despite this, Samex views the need to collect certificates from multiple agencies as adding to the time and cost of exporting. It sees value in the ability to receive all documents from one system.

In particular, it would value a system where documentation could be shared electronically with the importing government.

There are also hidden costs to Samex from the processes it does not control, including the costs that are passed on to it from its suppliers' administration costs to raise an RFP.

Endnotes

- ¹ UNECE, (2015) Recommendation and Guidelines on Establishing a Single Window to Enhance the Efficient Exchange of Information between Trade and Government: Recommendation No.33, available at: https://www.unece.org/fileadmin/DAM/cefact/recommendations/rec33/rec33_trd352e.pdf.
- ² See WCO, (2011) *Compendium on How to Build a Single Window Environment – Volume 1: The Executive Guide*, available at <http://www.wcoomd.org/en/topics/facilitation/activities-and-programmes/single-window/~media/252D1BF37A814526BF5BFFEAB7F13692.ashx>.
- ³ In some cases (e.g. DAWR for imports) the means of transport, transport equipment and people such as crew and passengers might be in scope also.
- ⁴ KGH's report on International Single Window Study is available at: http://www.sbr.gov.au/__data/assets/pdf_file/0006/44961/KGH-DIBP-SW-International-Study-Final-Report-v1.0_FINAL.pdf.
- ⁵ KPMG's report on Domestic Single Window Study is available at: http://www.sbr.gov.au/__data/assets/file/0007/45169/KPMG_ABR_Domestic-Single-Window-Study_Final-Report_Client-Copy_22-December-2016.pdf.
- ⁶ UNECE, (2012) *Trade Facilitation Implementation Guide: Single Window for Trade*, available at: <http://tfig.unece.org/contents/single-window-for-trade.htm>.
- ⁷ Explanatory Statement - CEO Instrument of Approval No. 1 of 2014, Customs Act 1901.
- ⁸ World Bank, (2016) *Doing Business 2017: Equal Opportunity for All*, p. 81, available at: <http://www.doingbusiness.org/~media/WBG/DoingBusiness/Documents/Annual-Reports/English/DB17-Report.pdf>.
- ⁹ Quaedvlieg, R (2016) Keynote Address by the Commissioner Australian Border Force, Australian Strategic Policy Institute, 21 July 2016.
- ¹⁰ DIBP, (2009) *Enhanced Trade Solutions 2015 - A Response to the Customs Strategic Outlook 2015 for the End to End Cargo Environment*, p. 7, available at: <https://www.homeaffairs.gov.au/ReportsandPublications/Documents/statistics/enhancedtradesolutions.pdf>.
- ¹¹ Bersin, A. (2012) 'Lines and Flows: The Beginning and End of Borders', *World Customs Journal*, vol. 6, no. 1, pp. 115-126.
- ¹² UNECE, (2005) *Recommendation and Guidelines on Establishing a Single Window to Enhance the Efficient Exchange of Information between Trade and Government: Recommendation No.33*, p.3, available at: https://www.unece.org/fileadmin/DAM/cefact/recommendations/rec33/rec33_trd352e.pdf.
- ¹³ World Bank, (2016) *Doing Business 2017: Equal Opportunity for All*, p.81, available at: <http://www.doingbusiness.org/~media/WBG/DoingBusiness/Documents/Annual-Reports/English/DB17-Report.pdf>.
- ¹⁴ Note in this context that UNECE recently published a guidance document. See UNECE, (2017) *Technical Note on Terminology for Single Window and Other Electronic Platforms*, available at: http://www.unece.org/fileadmin/DAM/cefact/cf_plenary/2017_Plenary/ECE_TRADE_C_CEFAC_T_2017_10E_TechnicalNoteSW.pdf.
- ¹⁵ UNECE, (2017) *Technical Note on Terminology for Single Window and Other Electronic Platforms*, p.80, available at: http://www.unece.org/fileadmin/DAM/cefact/cf_plenary/2017_Plenary/ECE_TRADE_C_CEFAC_T_2017_10E_TechnicalNoteSW.pdf.
- ¹⁶ African Alliance for E-Commerce, (2017) *Practical Implementation Guide of Single Windows for Foreign Trade*, p.19, available at: https://swguide.org/single_window/AACE_guidelines_Single_Window_2017.pdf.
- ¹⁷ UNECE, UNESCAP and UNNExT, (2013) *Single Window Planning and Implementation Guide*, available at: https://www.unece.org/fileadmin/DAM/trade/Publications/ECE-TRADE-404_SingleWindow.pdf.
- ¹⁸ There are many documents on the UNCITRAL website that discuss the legal implications of single window.

See, e.g. Rajput, T. (n.d.) *Information Management in International Trade: Role of UNCITRAL in Advancing International Single Window Environment*, available at: http://www.uncitral.org/pdf/english/congress/Papers_for_Programme/22-RAJPUT-Information_Management_in_International_Trade.pdf.

¹⁹ There are many references to single window on the UN/CEFACT website. The following link is for a conference on the subject in October 2017, but it has within it links to various other core concepts such as the various Single Window Recommendations. See UNECE, (2017) *International Conference on Future Directions for Single Window*, available at: https://www.unece.org/thirdsws_2017.html.

²⁰ WCO, (n.d.) *Single Window Guidelines*, available at: <http://www.wcoomd.org/en/topics/facilitation/instrument-and-tools/tools/single-window-guidelines.aspx>.

²¹ See UNECE, (2010) *Establishing a Legal Framework for International Trade Single Window: Recommendation No.35*, available at: http://www.unece.org/fileadmin/DAM/cefact/recommendations/rec35/Rec35_ECE_TRADE_401_EstablishingLegalFrameworkforSingleWindow_E.pdf.

²² For an extensive introduction to the existing conceptual frameworks for agency collaboration, see Standing Committee for Economic and Commercial Cooperation of the Organization of Islamic Cooperation, *Improving the Border Agency Cooperation Among the OIC Member States for Facilitating Trade*, pp.10-22, available at: <http://www.comcec.org/en/wp-content/uploads/2016/11/8-TRADE-P.pdf>.

²³ For example, see Widdowson, (2012) *Risk Based Compliance Management: Making It Work in Border Management Agencies*, Washington DC, World Bank, available at: <http://documents.worldbank.org/curated/en/159001468340844115/pdf/832780WPOENGLI00Box038208300PUBLICO.pdf>; Widdowson, D., and Holloway, S., (2010) 'Core Border Management Disciplines: Risk Based Compliance Management', in McLinden, G., Fanta, E., Widdowson, D., and Doyle, T., (eds) (2011) *Border Management Modernization*, Washington DC, World Bank, p.95.

²⁴ See UNNEXt, (2016) *Business Process Analysis to Simplify Trade Procedures: Case Studies*, available at: <https://unnex.t.unescap.org/content/business-process-analysis-simplify-trade-procedures-case-studies>.

²⁵ WCO, (n.d.) *Compendium on How to Build a Single Window Environment – Volume 2: The Professional Practice Guide*, available at: http://www.wcoomd.org/-/media/wco/public/global/pdf/topics/facilitation/activities-and-programmes/single-window/compendium/pc_swv2_vol_2_e.pdf?db=web.

²⁶ See UNECE, (2017) Recommendations of the 4th UNECE International Conference on Single Window of 30-31 October 2017, Geneva, Switzerland, available at: http://www.unece.org/thirdsws_2017.html.

²⁷ UNECE, (2010) *Recommendation No.34: Data Simplification and Standardization for International Trade*, available at: <http://tfig.unece.org/contents/recommendation-34.htm>.

²⁸ WCO, (2007) *WCO Data Model: Single Window Data Harmonization*, available at: <http://www.wcoomd.org/-/media/wco/public/global/pdf/topics/facilitation/activities-and-programmes/single-window/single-window-data-harmonisation-v2.pdf>.

²⁹ See UNECE, (2012) *Trade Facilitation Implementation Guide*, available at: <http://tfig.unece.org>.

³⁰ See UNECE, (2012) *Trade Facilitation Implementation Guide: Single Window Implementation*, available at: <http://tfig.unece.org/contents/single-window-implementation.htm>.

³¹ See UNECE, (2017) *Blockchain White Paper*, available at: <https://uncefact.unece.org/display/uncefactpublic/Blockchain+White+Paper>.

³² See UNNEXt, *About*, available at: <http://etradeforall.org/development-solution/unescap-unnex.t/>.

³³ See UNNEXt, *Tools*, available at: <https://unnex.t.unescap.org/tools>.

³⁴ See UNESCAP, (2012) *Single Window Planning and Implementation Guide*, available at: <http://www.unescap.org/resources/single-window-planning-and-implementation-guide>.

³⁵ See UNESCAP, (2012) *Electronic Single Window Legal Issues: A Capacity-Building Guide*, available at: <http://www.unescap.org/resources/electronic-single-window-legal-issues-capacity-building-guide>.

³⁶ UNESCAP, (2012) *Data Harmonization and Modelling Guide for Single Windows Environment*, available at: <http://www.unescap.org/resources/data-harmonization-and-modelling-guide-single-windows-environment>.

³⁷ UNESCAP, (2012) *Business Process Analysis Guide to Simplify Trade Procedures*, available at: <http://www.unescap.org/resources/business-process-analysis-guide-simplify-trade-procedures>.

³⁸ Recommendation No.18 was approved in September 1981. In September 1992, the review of the original text was approved to adapt the recommendations to the advanced technologies and the increase of globalisation. In 2001, a third review was approved (in force since 2002). See UN/CEFACT, (2001)

-
- Recommendation No.18: Facilitation Measures Related to International Trade Procedures, available at: http://www.unece.org/fileadmin/DAM/cefact/recommendations/rec18/rec18_ecetrd271e.pdf.
- ³⁹ UNECE, (2005) *Recommendation and Guidelines on Establishing a Single Window to Enhance the Efficient Exchange of Information between Trade and Government: Recommendation No.33*, available at: http://www.unece.org/fileadmin/DAM/cefact/recommendations/rec33/rec33_trd352e.pdf.
- ⁴⁰ See UNECE, (n.d.) *List of Trade Facilitation Recommendations No.31 to 36*, available at: <https://www.unece.org/tradewelcome/un-centre-for-trade-facilitation-and-e-business-uncfact/outputs/cefactrecommendationsrec-index/list-of-trade-facilitation-recommendations-n-31-to-36.html>.
- ⁴¹ Ibid.
- ⁴² Ibid
- ⁴³ Adapted from the definition of interoperability provided by the Institute of Electrical and Electronic Engineers (IEEE) Glossary. See IEEE, (n.d.) *Glossary*, available at: https://www.ieee.org/publications_standards/publications/rights/rights_glossary.html.
- ⁴⁴ See UNECE, (2017) *Recommendation No.36: Single Window Interoperability*, available at: https://www.unece.org/fileadmin/DAM/cefact/recommendations/rec36/ECE_TRADE_C_CEFAC_T_2017_6E_R ec36-SWI.pdf.
- ⁴⁵ UNCTAD, (2016) *Trade Facilitation and Development: Driving Trade Competitiveness, Border Agency Effectiveness and Strengthened Governance*, available at: http://unctad.org/en/PublicationsLibrary/dtl1b2016d1_en.pdf.
- ⁴⁶ UNCTAD, (n.d.) *Customs Automation – ASYCUDA*, available at: <http://unctad.org/en/Pages/DTL/TTL/ASYCUDA-Programme.aspx>.
- ⁴⁷ See UNCTAD, (n.d.) *Business Facilitation Program: Functional Description*, available at: <https://businessfacilitation.org/registrations/functional/>.
- ⁴⁸ See WCO, (n.d.) *Single Window Guidelines*, available at: <http://www.wcoomd.org/en/topics/facilitation/instrument-and-tools/tools/single-window-guidelines.aspx>.
- ⁴⁹ See WCO, (n.d.) *IT Guide for Executives: Strategic Leadership in Information Technology*, available at: <http://www.wcoomd.org/en/topics/facilitation/instrument-and-tools/tools/it-guide-for-executives.aspx>.
- ⁵⁰ WCO, (2015) *Compendium on How to Build a Single Window – Supplement Edition*, available at: http://www.wcoomd.org/-/media/wco/public/global/pdf/topics/facilitation/activities-and-programmes/single-window/compendium/sw-compendium-supplement-edition_.pdf?la=en.
- ⁵¹ Ibid, p.3.
- ⁵² WCO, (2007) *WCO Data Model, Single Window Data Harmonisation*, available at: http://www.wcoomd.org/-/media/wco/public/global/pdf/topics/facilitation/instruments-and-tools/tools/data-model/data_harmonisation.pdf?la=en.
- ⁵³ See PROCOMER, (2018) *Single Window System*, available at: <http://www.procomer.com/en/advice-exporters-costa-rica>.
- ⁵⁴ See GFP, (2013) *Core Partners*, available at: <https://gfptt.org/partners/core>.
- ⁵⁵ See IDB, (2018) *About Us*, available at: <http://www.iadb.org>
- ⁵⁶ Roberts, C. and Ulloa, A. (2015) *Foreign Trade Single Window as an Instrument of Trade Facilitation: The Latin-American Experience*, p.17.
- ⁵⁷ Ibid.
- ⁵⁸ Estavadeordal, A. (n.d.) *Trade Facilitation LAC: IDB SW Projects*, available at: http://redvuce.org/_presentaciones/0%20-%20Antoni%20Estavadeordal.pdf
- ⁵⁹ See RedVuce, *Home*, available at: <https://bid-comunidades-integracion.org/cops/vuce/comunidades/red-vuce/>.
- ⁶⁰ World Bank, (2012) *Developing a Trade Information Portal*, p.3, available at: <https://www.openknowledge.worldbank.org/handle/10986/16975>.
- ⁶¹ WCO has developed a comprehensive study on C2C exchanges called “Globally Networked Customs”. See WCO, (n.d.) *Globally Networked Customs*, available at: <http://www.wcoomd.org/en/topics/facilitation/activities-and-programmes/gnc.aspx>.
- ⁶² For discussion in the context of the Pacific Alliance see Marczak, J. and George, S. (2016) *Pacific Alliance 2.0: Next Steps in Integration*, available at: <http://publications.atlanticcouncil.org/pacific-alliance/>.
- ⁶³ Although this project has ambitious goals, progress has been slower than anticipated. See ASEAN, (2013) *About ASEAN Single Window*, available at: <http://asw.asean.org/about-asw>.

-
- ⁶⁴ Article 5.9 of Commercial Protocol of Pacific Alliance. Spanish version available at: <https://alianzapacifico.net/en/>.
- ⁶⁵ For Official Statement by Minister of Foreign Trade of Perú (member of Pacific Alliance) see Ministry of Foreign Trade and Tourism of Peru, (n.d.) *Ministra Magali Silva anunció la interoperabilidad entre las ventanillas únicas de los países de la Alianza del Pacífico*, available at: <https://www.mincetur.gob.pe/8521-2/>.
- ⁶⁶ See Ministry of Foreign Trade and Tourism of Peru, (2017) *User Manual Vuce – Interoperability Pacific Alliance – SENASA*, available at: https://www.vuce.gob.pe/manual_vuce/manuales/usuarios/Manual_de_Interoperabilidad_Alianza_Pacifico_de_Certificados_Fitosanitarios_SENASA.pdf
- ⁶⁷ See UNECE, (n.d.) *Single Submission Portal*, available at: <https://uncefact.unece.org/display/uncefactpublic/Single+Submission+Portal>.
- ⁶⁸ See IMO, (2017) *FAL Forms and Certificates*, available at: <http://www.imo.org/en/OurWork/Facilitation/FormsCertificates/Pages/Default.aspx>.
- ⁶⁹ IMO, (2014) *Facilitation Committee, 39th Session 22-26 September 2014*, available at: <http://www.imo.org/en/MediaCentre/MeetingSummaries/FAL/Pages/FAL-39th-session.aspx>.
- ⁷⁰ Coindesk, (n.d.) *How Does Blockchain Technology Work?*, available at: <https://www.coindesk.com/information/how-does-blockchain-technology-work/>.
- ⁷¹ WTO, (1996) *Singapore Ministerial Declaration*, available at: https://www.wto.org/english/thewto_e/minist_e/min96_e/wtodec_e.htm#trade_facilitation.
- ⁷² WTO, (n.d.) *Trade Facilitation – Cutting “Red Tape” at the Border*, available at: https://www.wto.org/english/tratop_e/tradfa_e/tradfa_introduction_e.htm.
- ⁷³ Ibid.
- ⁷⁴ Ibid.
- ⁷⁵ Ibid.
- ⁷⁶ See Pugliatti, L. (2012) *Developing a Trade Information Portal*, World Bank, Washington DC, available at: <http://documents.worldbank.org/curated/en/284531468148155900/pdf/832730WPOENGLI0Box0382083B00PUBLIC0.pdf>.
- ⁷⁷ See Gamboa-Alder, A., (2017) ‘How Single Window Helps Implementation of the Trade Facilitation Agreement’, Presentation delivered at the International Conference on Future Directions for Single Window, 30 October 2017, Geneva, Switzerland, available at: http://www.unece.org/fileadmin/DAM/cefact/OtherMeetings/2017/Oct_Geneva_SWS/Day1_PPTs/2-4_AGamboa-Alder_The_Single_Window_and_the_implementation_of_the_WTO_TFA.ppsx.
- ⁷⁸ Liberal Party of Australia, (n.d.) *Key Commitments*, available at: <https://www.liberal.org.au/coalitions-policy-more-jobs-and-growth-through-increased-trade-and-investment>.
- ⁷⁹ Quaedvlieg, R (2016) Keynote Address by the Commissioner Australian Border Force, Australian Strategic Policy Institute, 21 July 2016.
- ⁸⁰ Dutton, P., (2017) Address by the Minister for Immigration and Border Protection to the 2017 Industry Summit, 31 July 2017, Melbourne, available at: <http://www.minister.border.gov.au/peterdutton/Pages/keynote-address-to-industry-summit-july17.aspx>.
- ⁸¹ See KGH Border Services, (2016) *International Single Window Study*, p.12, available at: http://www.sbr.gov.au/__data/assets/pdf_file/0006/44961/KGH-DIBP-SW-International-Study-Final-Report-v1.0_FINAL.pdf.
- ⁸² See UNESCAP, (2012) *Single Window Planning and Implementation Guide*, p.11, available at: <http://www.unescap.org/resources/single-window-planning-and-implementation-guide>.
- ⁸³ See KGH Border Services, above n 81, p.13.
- ⁸⁴ Ibid, pp.16-18. The listing here contains abbreviated summaries of selected recommendations.
- ⁸⁵ KPMG, (2016) *Domestic Single Window Study*, p.5, available at: http://www.sbr.gov.au/__data/assets/file/0007/45169/KPMG_ABR_Domestic-Single-Window-Study_Final-Report_Client-Copy_22-December-2016.pdf.
- ⁸⁶ Ibid, p.7.
- ⁸⁷ Ibid.
- ⁸⁸ Ibid, p.20.
- ⁸⁹ Ibid, p.7.
- ⁹⁰ See UNESCAP, (2017) *Trade Facilitation and Paperless Trade Implementation - Global Report 2017*, available at: <http://www.unescap.org/resources/trade-facilitation-and-paperless-trade-implementation-global-reports->

2017.

⁹¹ See Canada Border Services Agency, (2017) *Update to the Implementation of the Single Window Initiative*, Customs Notice 17-09, available at: <http://www.cbsa-asfc.gc.ca/publications/cn-ad/cn17-09-eng.html>.

⁹² See Ministry of Infrastructure and Water Management of the Netherlands, (n.d.) *Single Window for Maritime and Aviation: The Netherlands*, available at: <https://www.rijkswaterstaat.nl/english/waterways/main-waterway-network/maritime-single-window-nederland.aspx>.

⁹³ See Vali, I. (2017) 'Estonian e-Governance Best Practices and Cooperation with UN', Presentation delivered at the International Conference on Future Directions of Single Window, 30 October 2017, Geneva, Switzerland, available at:

http://www.unece.org/fileadmin/DAM/cefact/OtherMeetings/2017/Oct_Geneva_SWS/Day1_PPTs/4-1_Vali_Estonian_e-Governance_best_practices_and_cooperation_with_UN.ppsx.

⁹⁴ Office of Inspector General, (2015) *CBP is on Track to Meet ACE Milestones, but It Needs to Enhance Internal Controls*, available at: https://www.oig.dhs.gov/assets/Mgmt/2015/OIG_15-91_May15.pdf.

⁹⁵ Ibid.

⁹⁶ For one example, see National Customs Brokers & Forwarders Association of America Inc, (n.d.) *Status of Ace and Single Window Development and Impact to the Trade Community*, available at:

[http://www.ncbfaa.org/Scripts/4Disapi.dll/userfiles/uploads/ACE_Development_Position_Paper_\(003\).pdf](http://www.ncbfaa.org/Scripts/4Disapi.dll/userfiles/uploads/ACE_Development_Position_Paper_(003).pdf).

⁹⁷ These are: Australian Maritime Safety Authority; Austrade; Department of Agriculture and Water Resources; Department of Defence; Department of Foreign Affairs and Trade; Department of Immigration and Border Protection; Digital Transformation Agency; Department of the Environment; Department of the Prime Minister and Cabinet; The Treasury; Australian Federal Police; and Department of the Attorney-General.

⁹⁸ Information drawn from DFAT website (<http://dfat.gov.au>) and researchers' interview with DFAT.

⁹⁹ Ibid.

¹⁰⁰ Ibid.

¹⁰¹ Ibid.

¹⁰² Information drawn from DIBP website (<http://www.border.gov.au>) and researchers' interview with DIBP.

¹⁰³ Ibid.

¹⁰⁴ Ibid.

¹⁰⁵ Ibid.

¹⁰⁶ Department of Home Affairs, (n.d.) *Who We Are*, available at: <https://www.homeaffairs.gov.au/australian-border-force-abf/who-we-are>.

¹⁰⁷ Information drawn from DAWR website (<http://www.agriculture.gov.au>) and researchers' interview with DAWR.

¹⁰⁸ See DAWR, (n.d.) *Welcome to BICON*, available at: <https://bicon.agriculture.gov.au/BiconWeb4.0>.

¹⁰⁹ Information drawn from APVMA website (<https://apvma.gov.au>).

¹¹⁰ Ibid.

¹¹¹ Information drawn from DIRD website (<https://infrastructure.gov.au>) and researchers' interview with DIRD.

¹¹² Ibid.

¹¹³ Information drawn from DIRD website (<https://infrastructure.gov.au/security>) and researchers' interview with OTS.

¹¹⁴ DIRD, (2018) *Known Consignor Scheme*, available at: <https://infrastructure.gov.au/security/air-cargo/factsheet-known-consignor-scheme.aspx>.

¹¹⁵ Information drawn from DIIS website (<https://industry.gov.au>).

¹¹⁶ DOH, (2016) *Overview*, available at:

<http://www.health.gov.au/internet/main/publishing.nsf/content/health-overview.htm>.

¹¹⁷ Information drawn from DOH website (<http://www.health.gov.au>).

¹¹⁸ Information drawn from NICNAS website (<https://www.nicnas.gov.au>) and researchers' interview with NICNAS.

¹¹⁹ Information drawn from TGA website (<https://www.tga.gov.au>).

¹²⁰ Ibid.

¹²¹ TGA, (n.d.) *Forms*, available at: <https://www.tga.gov.au/forms-0>.

¹²² Information drawn from ODC website (<https://www.odc.gov.au>) and researchers' interview with ODC.

¹²³ See ODC, (2016) *Application Forms and Guidance for the Import and Export of Controlled Substances*, available

at: <https://www.odc.gov.au/application-forms>.

¹²⁴ See UNODC, (2018) *National Drug Control System*, available at: <http://www.unodc.org/nds/>.

¹²⁵ Information drawn from DPMC website (<https://www.pmc.gov.au>).

¹²⁶ Ibid.

¹²⁷ Information drawn from DOD website (<http://www.defence.gov.au>) and researchers' interview with DOD.

¹²⁸ Ibid.

¹²⁹ Ibid.

¹³⁰ DOD, (n.d.) *Application to Export Controlled Goods and Technology*, available at:

<http://www.defence.gov.au/ExportControls/FormExport.asp>.

¹³¹ KPMG, (2016) *Domestic Single Window Study*, p.7, available at:

http://www.sbr.gov.au/__data/assets/file/0007/45169/KPMG_ABR_Domestic-Single-Window-Study_Final-Report_Client-Copy_22-December-2016.pdf.