FASTER CUSTOMS, FASTER TRADE

USING TECHNOLOGY FOR TRADE FACILITATION

International Trade Centre

In cooperation with

HUAWEI

Faster customs, faster trade

Using technology for trade facilitation

About the paper

This report offers policy advice to explore synergies between the WTO Trade Facilitation and Information Technology Agreements. These agreements reinforce each other, and can boost trade. Used well, policymakers can set in motion technology-based national trade facilitation reforms, especially for customs processes.

ITC produced this report in cooperation with Huawei Technologies. It encourages the use of ICT tools and schemes such as the Authorized Economic Operator. These reduce costs and time for small firms, and help them be competitive in regional and global markets.

Publisher: International Trade Centre

Title: Faster customs, faster trade: Using technology for trade facilitation

Publication date and place: July 2018, Geneva

Page count: 53

Language: English

ITC Document Number: TFPB-18-18.E

Citation: International Trade Centre (2018). *Faster customs, faster trade: Using technology for trade facilitation*. ITC, Geneva.

For more information, contact: Mohammad Saeed at saeed@intracen.org

ITC encourages the reprinting and translation of its publications to achieve wider dissemination. Short extracts of this paper may be freely reproduced, with due acknowledgement of the source. Permission should be requested for more extensive reproduction or translation. A copy of the reprinted or translated material should be sent to ITC.

Digital image on the cover: © Shutterstock

© International Trade Centre (ITC)

ITC is the joint agency of the World Trade Organization and the United Nations.

Foreword

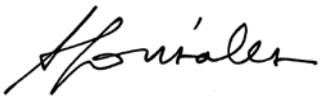
As the world becomes increasingly connected and doing business becomes more digitally enabled, it is vital that advances in technology are used to reinvigorate trade and boost inclusive and sustainable economic growth. This is especially true for the base of the pyramid who may still not have access to even basic technology of the 21st century, such as internet connection.

Trade in information and communications technologies (ICTs) and business environment policies play important enabling roles in achieving global trade growth. The World Trade Organization's Trade Facilitation Agreement has laid the groundwork for more efficient trade at the border and the Information Technology Agreement has helped to facilitate the trade of ICT goods and, in turn, promote access to technologies that can support the reform and implementation of national trade facilitation agendas.

These agreements complement each other by reducing costs, simplifying procedures and improving the efficiency of cross-broder flows. These factors have not only resulted in enhanced global trade of ICT products but have also allowed both government agencies and businesses, including micro, small and medium-sized enterprises to rapidly integrate productivity-enhancing technologies into their operations.

Taken together, technology trade and trade facilitation policies can act as catalysts to upgrade ICT infrastructure and lower trade costs. Ultimately, all of these improvements help to increase access to lower-cost products that can improve the lives of consumers in developing countries and close the digital divide.

The International Trade Centre and Huawei Technologies, a leading global provider of ICT infrastructure, have developed this publication to help policymakers understand important interplay between international trade facilitation policies and their impact on future development of the global ICT industry. It aims to help governments recognize that ICT solutions can drive the implementation of national trade facilitation measures, improve administrative efficiency, and mitigate increasingly complex risks associated with international trade.



Arancha González
Executive Director
International Trade Centre

Acknowledgements

The International Trade Centre (ITC) and Huawei Technologies Co. Ltd. express their gratitude to all parties involved in the development of this publication, external consultant, Manzoor Ahmad, as well as Ezequiel Guicovsky Lizarraga, Qasim Chaudry (all ITC) and Aviva Zhang (from Huawei Global Government Affairs). Rajesh Aggarwal, Chief of Trade Facilitation and Policy for Business Section, Mohammad Saeed, Senior Trade Facilitation Adviser (both ITC), Simon Lacey, Vice-President of Global Government Affairs at Huawei provided the guidelines and structure for the publication and supervised the writing.

ITC and Huawei would also like to thank Qasim Chaudry and Aviva Zhang for supervising the progress of the publication; Victoria Tuomisto, Christine Pulvermacher and Craig Atkinson for their contributions; Natalie Domeisen and Evelyn Seltier (both ITC), who oversaw the editing, production and quality control; Cheryl Rosebush, who edited the report; and Serge Adeagbo and Franco Iacovino (both ITC), who provided graphic and printing support.

Contents

Boxes and Figures

Acronyms

Unless otherwise specified, all references to dollars ($) are to United States dollars, and all references to tons are to metric tons.

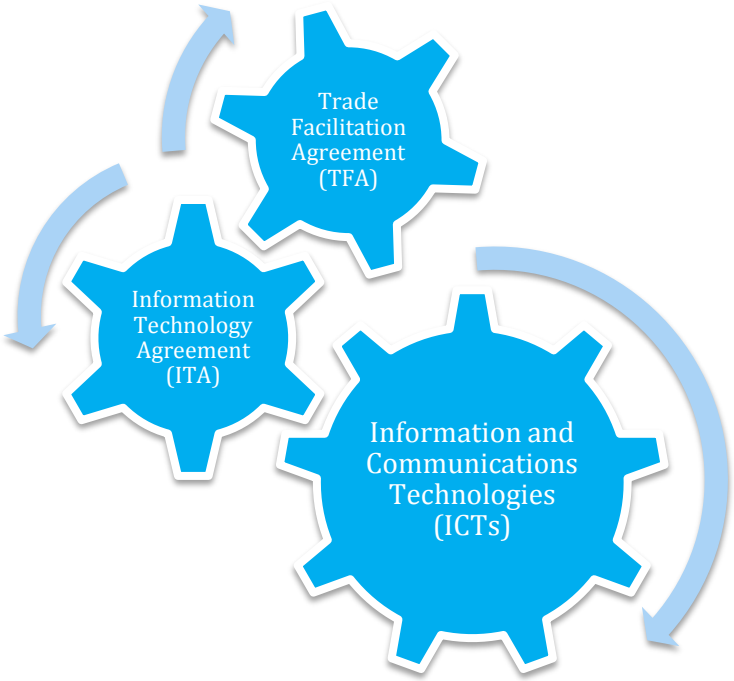
AEO	Authorized Economic Operator
AO	Authorized Operator
APEC	Asia-Pacific Economic Cooperation
C-TPAT	Customs-Trade Partnership Against Terrorism programme
EU	European Union
FAST	Free and Secure Trade programme
FDI	Foreign direct investment
GATT	General Agreement on Tariffs and Trade
GDP	Gross domestic product
GVC	Global value chain
ICT	Information and communications technology
IMF	International Monetary Fund
IT	Information technology
ITC	International Trade Centre
LDCs	Least-developed countries
MSME	Micro, small and medium-sized enterprise
OECD	Organisation for Economic Co-operation and Development
PIP	Partners in Protection programme (Canada)
RTA	Regional Trade Agreements
RWG	Rotterdam World Gateway
SAFE	Standards to Secure and Facilitate Trade Framework
SDGs	Sustainable Development Goals
TFA	Trade Facilitation Agreement
TFI	Trade Facilitation Indicators
TFIG	Trade Facilitation Implementation Guide
UNCTAD	United Nations Conference on Trade and Development
UNECE	United Nations Economic Commission for Europe
WTO	World Trade Organization
WCO	World Customs Organization

Executive summary

Information and communications technologies (ICTs) have been the most transformative and productivity enhancing of all technologies over the past three decades. The proliferation of ICTs has helped to drive economic growth, social progress, and improvements in living standards. These developments are fuelling continuous advancement and making ICT a high potential industry in today's global economy.

These conditions have also created a digital divide, leading to economic and social inequality in access, use and impact of ICTs. To address this growing disparity, focus has turned to global trade facilitation as a tool to level the playing field. Trade facilitation measures can help to reduce costs, delays and uncertainties, allowing businesses to improve efficiency and become more competitive. This is especially critical for micro, small and medium-sized enterprises (MSMEs) that lack the financial resources to overcome inherent inefficiencies in the trading system and to connect into regional and global markets.

This paper demonstrates how governments can optimize complementarities at the intersection of technological change and the implementation of trade facilitation policy. Through a careful analysis of the interplay between WTO Trade Facilitation Agreement (TFA) of 2017 and the Information Technology Agreement (ITA) of 1996, this report demonstrates how countries can get the technology-policy mix right, creating a positive feedback loop to disrupt the digital divide and improve livelihoods.



The value of trade facilitation in a complex trading environment

Chapter 1 explores current challenges of the global trade environment and trade in ICTs. Previously, governments have have not been able to ensure cross-border security while keeping costs low for the private sector. The WTO's TFA can help provide a level playing field for countries by addressing non-tariff trade barriers and border management inefficiencies. In doing so, the TFA can help boost the competitiveness of MSMEs to integrate into regional and global value chains.

Trade compliance and facilitation: two sides of the same coin

Chapter 2 defines the value and role of trade facilitation and compliance. Both of these are particularly important in the era of shared production networks and global value chains. While the roles of trade compliance and trade facilitation are evolving, governments can help ensure that traders remain both competitive and fully compliant with the rules.

Implementing the WTO Trade Facilitation Agreement (TFA)

Chapter 3 highlights how ICT has a key role to play in providing transparency and efficiency in trade procedures. ICT solutions contribute to WTO TFA implementation, and there is evidence of strong linkages between trade facilitation and foreign direct investment.

A positive feedback loop: complementarities between WTO agreements and ICT trade

Chapter 4 highlights the importances of the WTO Information Technology Agreement for the global ICT industry as well as its complimentarities with the TFA. Both the ITA and the TFA can help to bridge the digital divide and enable global value chain development.

Solutions to support trade facilitation

Chapter 5 introduces trade facilitation solutions, both policies and technologies, including those by the World Customs Organization (WCO). Trade agreements, especially the TFA and ITA, are creating a positive feedback loop that is enhancing and reinforcing the effects of each other. The ITA promotes liberalized trade and helps to spur technology transfer. The TFA makes for easier trade in ICTs that, in turn, support the implementation of the TFA. Policymakers are encouraged to use these mutually reinforcing agreements to design more effective trade policies and collaborate with each other in developing an open, transparent, facilitative trade environment.

CHAPTER 1 THE VALUE OF TRADE FACILITATION IN A COMPLEX TRADING ENVIRONMENT

© shutterstock.com

The digital economy is quickly becoming 'the economy' and a growing number of countries are assessing how information and communications technology (ICT) can boost trade and support their economic development objectives. While the proliferation of ICT has helped to drive economic growth, social progress and improvements in living standards, it has also created a growing digital divide that threatens to disadvantage micro, small and medium-sized enterprises (MSMEs), especially in developing countries.

Global trade agreements exist to help countries increase their access to ICT. Before countries can design an optimal trade facilitation "policy-technology" mix and help to bridge the "digital divide" – or the economic and social inequality in access, use and impact of information and communications technologies – it is fundmental to understand the dynamics of global trade and the role of the ICT industry.

Slow trade growth in a complex environment

Despite dramatic growth in international trade between the 1970s and 2008, growth has been on a steady decline since 2014. According to World Bank data, between 1977 and 2008, the value of world merchandise exports rose from $2 trillion to $16.2 trillion. This period was followed by the global financial crisis, where exports fell to $12.6 trillion in 2009, before rebounding in 2011 to $18.5 trillion. Growth remained modest until 2014 when it reached $19.1 trillion), but has since been in constant decline, falling to $16 trillion in 2016.

According to the International Monetary Fund (IMF) World Economic Outlook, global economic growth in 2016 slowed to 3.1%, down 0.3% from 2015. In developed countries, the growth rate was 1.7%, down 0.4% from 2015. Emerging economies and developing countries grew at an average of 4.1%, down 0.1% from 2015. However, in the second half of 2016, there were signs of economic stability in major economies with

eased deflationary pressures and stronger recovery momentum. The United States of America enjoyed growth of 3.5% and 2.1% in the third and fourth quarters respectively, while the Eurozone was approaching pre-crisis growth levels. China and India were among the fastest growing economies, at 6.7% and 6.8% respectively.

A number of factors explain the decline in international trade and threaten to offset the progress and benefits accrued from decades of trade and investment liberalization efforts. Primarily, the rise of protectionist, nationalist and anti-globalization sentiment, especially in advanced industrialized countries, presents a grim outlook for the current trading environment. As a result, the incidence of trade restrictive measures has increased considerably. According to World Bank research, policy uncertainty was responsible for 75% of the slowdown in global trade between 2015 and 2016.

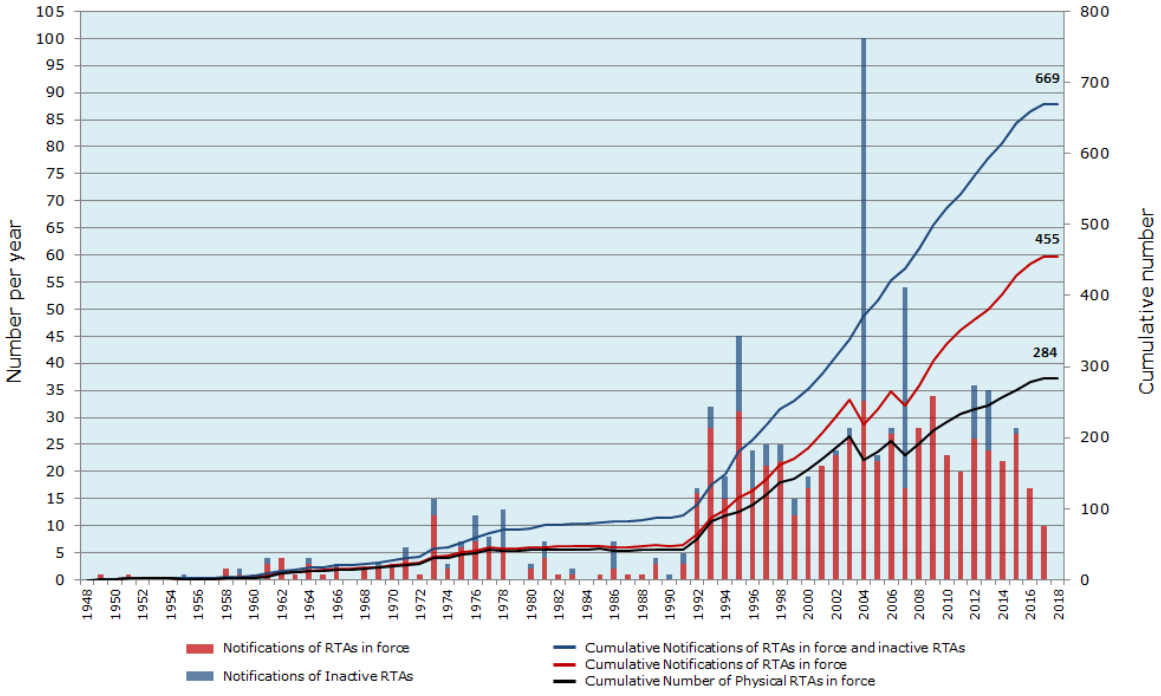
Despite the trends, it is not all bad news. According to IMF forecasts, global economic growth in 2017 was expected to rise to 3.4%. In this context, emerging economies would grow by 4.6% and developed nations by 1.8%. At the same time, global trade is expected to recover at an even faster rate. According to the World Trade Organization (WTO), 71 major economies enjoyed annual export growth of 8% and import growth of 6.2% after two consecutive years of slowdown.

The global trade landscape continues to evolve

The continuously evolving global landscape of international trade is shaped by the dynamics of markets and the rules of trade. The geographic focus of international trade has shifted from the developed to the developing world, with a particular focus on regional integration. As a result, the majority of world trade is governed by bilateral and regional trade agreements (RTAs). According to the WTO, the number of RTAs in force increased from fewer than 20 in 1990 to 285 in 2018 (see Figure 1).

It is becoming increasingly difficult to predict how the trade landscape will evolve in both the short and long term. So-called mega-regional trade agreements that will cover the majority of global GDP have been hit by political roadblocks and have made predictions even more uncertain. Even at the multilateral level, where consensus is very difficult to achieve due to the diverse membership of the WTO, more and more members are moving towards plutilateral negotiations between like-minded members to achieve forward momentum. Given the ever-changing patterns in trade, technologies, production and consumption, these regional or like-minded approaches have been the preferred option for policy formulation in recent history.

Figure 1 Evolution of regional trade agreements (1948–2018)



Source: World Trade Organization (2018)

Many countries acknowledge the benefits of globalization for their domestic economies and are attempting to counter the rise in anti-globalization sentiment by relying on RTAs, multilateral collaboration and economic integration to fuel growth and achieve development objectives. The rise in the number of RTAs since the global financial crisis is evidence of the determination of many countries to collaborate and succeed. The challenge today is to make trade more inclusive within and across borders.

Using the ICT industry as an example, exports of information technology (IT) products primarily originate from regions that have been traditionally strong in ICT manufacturing and assembly. Therefore, these exporters, and the countries or regions in which they operate, can have a major influence on global ICT trade and markets. In ICT sectors, value chains are deeply integrated within and across different regions and share several commonalities across developed and developing countries. The impact of any change in policy is therefore widely felt.

Exporters of integrated circuit boards are mainly from the United States, Europe and the Asia Pacific region, including Chinese Taipei, South Korea, China, Japan, Singapore, the Philippines and Malaysia. Policy adjustments and trade frictions between major exporters may affect the entire industry and subsequently global markets. However, multinational corporations have made substantial investments to attain profitability and growth in a complex global policy environment. Micro, small and medium-sized enterprises (MSMEs) are more vulnerable since they are involved in the industry as suppliers, distributors and service providers.

Regulations struggle to keep pace with technology and business

The rapid pace of technological innovation is leading to the emergence of new business models across the globe. As a result, many jobs that exist today, including those that support cross-border e-commerce and online sales, did not exist a few decades ago. As trade volumes increase, the legacy systems and regulations of governments are unable to cope with the expectations of efficient border controls and services to traders. As a result, border procedures are marred by inefficiencies and governments face difficulties in controlling revenue leakage, smuggling and enforcement of trade policies.

The growth in preferential and regional trade agreements has made essential customs determinations increasingly difficult on a technical level. Government officials must now deal with a complex aray of rules of origin for products. This requires all governments, especially customs authorities, to innovate and introduce new regulatory measures and tools that cater to changing needs. Customs authorities in all countries are faced with three key questions:

- How can governments strike a balance between enforcing stricter regulations and driving growth in trade?
- How can they manage risks effectively to ensure national security without excessive growth in manpower and budget?
- How can they provide enterprises with a transparent, predictable, efficient and affordable regulatory environment?

To address these challenges, technology can help stakeholders to reap the benefits of international trade. For example, a risk management systemcan play an effective role in applying government regulations fairly and combating smuggling to safeguard national security. To ensure the effectiveness of a risk management system, new technologies, tools, and solutions need to be used to ensure that international best practices are being applied to facilitate trade. While the benefits for the private sector may be obvious, risk-based trade facilitation measures also help governments to optimize the use of existing resources by allocating them where they are most needed (i.e. on high-risk consignments).

Yet, least-developed countries (LDCs) are far behind in access to, and affordability of, ICTs. It is imperative that technology and knowledge transfer are to the benefit all actors in international trade, as ICTs can help LDCs to advance productivity, efficiency of regulatory systems and move closer to achieving their development objectives.

High costs, declining profitability create a digital divide

The world economy has remained weak since 2008 and company profits have remained deflated across many sectors, particularly those most heavily exposed to international trade. According to a WTO report, since October 2008, WTO members have imposed 2,557 trade restrictions and 1,915 were still in effect at the end of 2015. The extra burden placed on enterprises is transferred to end consumers. Increasing costs in international trade have deepened the digital divide, thereby excluding people in LDCs from the many gains and opportunities promised by the digital economy.

Globally, about 3.9 billion people, or 53% of the world's population, remain unconnected. Among the two billion households, 1.3 billion have no access to broadband and 300 million households access the Internet with speeds slower than 10 Mbit/s. More recently, the growth of network users has slowed, in part because the ICT industry faces a greater number of global trade barriers.

There are many root causes for the digital divide. The first and most obvious is deficiencies in local infrastructure. Network access is complex, as it requires a high-quality network connection, a smart device, and relevant applications or services. Secondly, these must be available and affordable for consumers. In particular, trade barriers for ICT products increase the burden on low-income users. For example, in some countries with no domestic ICT industry, a tariff of between 12-16% is imposed on imported ICT products. In some African countries, the time for customs clearance of imported products can be longer than 100 days. Both tariff and non-tariff barriers hinder efforts to bridge the digital divide.

Africa, one of the continents that could benefit the most from the digital economy, faces the lowest Internet penetration rates. According to the 2016 State of Broadband report published by the International Telecommunications Union, countries where Internet penetration is lower than 3% include Chad, Sierra Leone, Niger, Somalia, and Eritrea. There is still a long way to go to bridge the digital divide and make broadband accessible for everyone in these countries. The experience of China-based Huawei Technologies – which has deployed more than 50% of mobile base stations in Africa, as well as 70% of long-term evolution (LTE) networks and more than 50,000 kilometres of fibre-optic – shows that engaging in cross-border trade is not easy on the continent. Companies such as Huawei have invested time and effort to comply with a range of complex procedures, includinig pre-shipment inspection, license applications, product security testing, and preferential rules of origin.

WTO Trade Facilitation Agreement: Towards a level playing field

Trade facilitation reforms aim to reduce transaction costs in international trade with a series of measures, such as streamlining procedures, increasing transparency, unifying standards, improving regulations and reducing restrictions. These measures increase supply chain efficiency and allow enterprises to participate in GVCs. The promotion of trade growth by these means is particularly relevant for the ICT industry. Deeper integration in GVCs can lead to knowledge and technology-transfer that has driven the development of domestic ICT industries in some regions. Furthermore, the trade facilitation agenda can play a key role in providing under-developed regions with affordable access to products, networks and services.

The WTO Trade Facilitation Agreement entered into force in February 2017 and creates, multilateral, binding obligations for members to implement reforms that expedite the movement, release and clearance of goods, including goods in transit. According to Brookings Institution research on trade facilitation efforts, the most effective provisions are those that directly target barriers, such as lack of transparency, duplication of documentation requirements, and the absence of automatic data submission procedures. In this sense, trade facilitation can act as a tool or technology at the multilateral, regional, and national levels to improve the efficiency of the existing regulatory trade architecture. Trade facilitation reform can also address new structural changes in trade, complement investments in commercial infrastructure, absorb new disruptive technologies in trade and maintain the momentum of trade liberalization.[1]

[1] The Brookings Institution (2017). Why trade facilitation matters more than ever

The WTO estimates potential benefits of the TFA range from between $350 billion and $1 trillion in reduced trade costs (WTO 2013). Commensurate gains in world trade are expected to be between $33 billion and $100 billion in global exports per year (World Bank, OECD, 2011). An estimated $950 billion increase in two-way trade, as a consequence of significant improvements in trade facilitation, could deliver GDP growth of approximately $440 billion. For developing countries, the estimated $1 trillion increase in two-way trade promises to deliver GDP growth of $520 billion. Overall, the potential trade expansion from a far-reaching TFA could eventually translate to world GDP growth of $960 billion annually (Hufbauer and Schott 2013).

The Trade Facilitation Indicators (TFIs) are used by Organisation for Economic Co-operation and Development (OECD) countries to measure the impacts of specific trade facilitation measures on the economy and trade. The 2015 OECD TFIs report showed that countries that implement the TFA in full should be able to reduce their trade costs by between 1.4% and 3.9% more than those that do only the minimum that the TFA requires. The importance of trade facilitation continues to grow with structural changes in global trade, including the rise of e-commerce and the influx of small consignments. Global e-commerce steadily grew from $1.1 billion in 2013 to $2.4 billion in 2017. More online transactions mean that more goods trade in small quantities and that more products will pass customs separately.

Although imports and exports of goods in large quantities by individual companies will continue, the importance of this form of trade will wane compared to growth promised by global e-commerce and an inclusive trading system that encourages the participation of MSMEs. To develop this system, efficient and low-cost solutions for trade facilitation are needed by border agencies to handle the rise in cross-border traffic. The TFA includes a number of measures that make use of ICTs to provide for transparent, efficient, predictable and low-cost border procedures.

CHAPTER 2 TRADE COMPLIANCE AND FACILITATION: TWO SIDES OF THE SAME COIN

© shutterstock.com

Trade facilitation is the simplification, modernization, and harmonization of export and import procedures. Trade compliance pertains to conforming to trade regulations, and is the foundation for transforming border bottlenecks into global gateways.. Trade facilitation and trade compliance work together and are largely interdependent. If the rules are simple and harmonized, there is greater compliance. On the other hand, when there is voluntary compliance, there is no need for complex rules. In this sense, trade facilitation and compliance are two sides of the same coin. The fact that the term compliance is referred to a total of 17 times in the WTO TFA underscores that trade compliance is indeed the basis for trade facilitation.

Trade facilitation and trade compliance have different connotations. From the perspective of government, trade supervision and trade facilitation should be managed at the same time. Compliance is a basic requirement that governments expect from businesses. In turn, this influences national security, trade statistics, anti-smuggling and trade-led development. As GVCs develop, the trade policies of individual countries have the potential to affect global market patterns and the entire world trade system. Thus, WTO member countries should consider how to better use the rules to stimulate the orderly, and least-restrictive, flow of international and domestic production factors, the efficient allocation of resources, and levels of market integration.

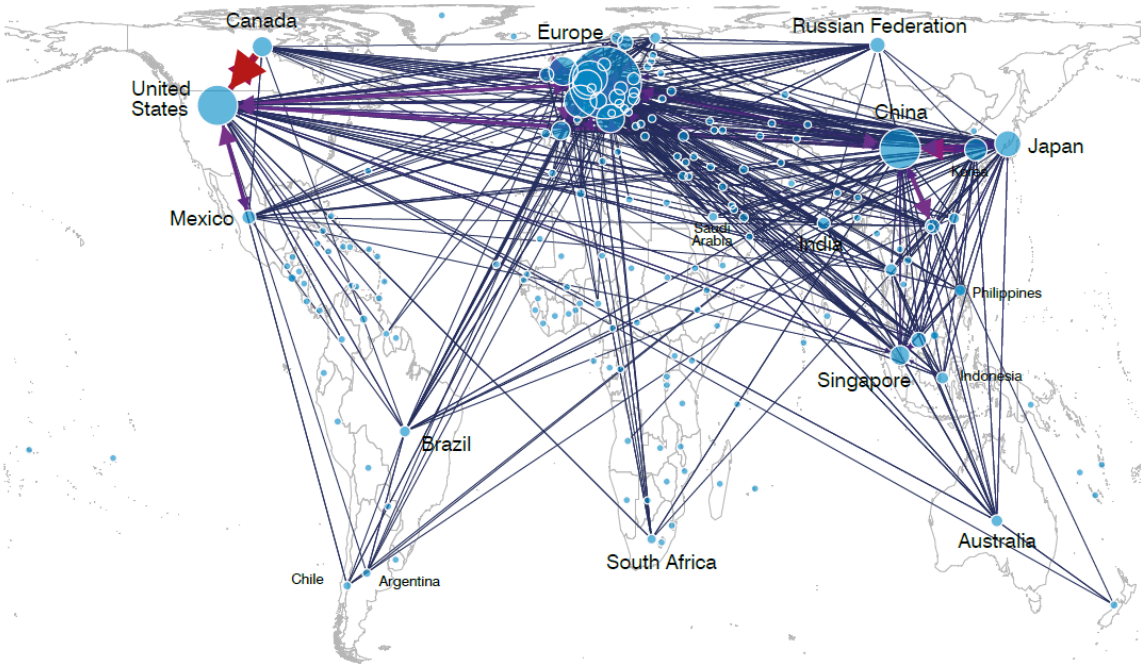
From the perspective of the private sector, especially large multinational corporations, trade compliance is taken seriously; it has a direct impact on costs and risks and is directly linked to profitable and sustainable growth. Cases of violation have the potential to negatively impact a company's business and reputation as well as its relationships with stakeholders and partners. There are a number of reasons why multinational corporations often prioritize trade compliance over commercial interests.

Supporting global value chains

Breakthroughs in the means of communication and containerization, aided by the concomitant liberalization of trade and investment, has brought about a paradigm shift in the production patterns of manufactured goods. The process of producing goods from raw materials to finished products is increasingly fragmented and carried out wherever the necessary skills and materials are available at competitive cost and quality. As a result, GVCs have become a dominant feature of world trade and investment, and relatively more so in the ICT industry. The shift in production patterns is providing opportunities to enterprises in developing countries to join existing supply chains rather than invest decades in building their own. Even MSMEs in low-income countries now have the opportunity to render specific manufacturing or other services to a lead firm in another country.

Figure 2 depicts the flows and impacts of GVCs on global trade. The dots represent GVC trade, defined as the sum between the domestic value added that is re-exported and the foreign content of exports of a country. The larger the dot, the more the country is a global player in the GVC network. The arrow size reflects the intensity of bilateral trade. The bigger the arrow, the more the bilateral relationship contains GVC trade.[2]

Figure 2 Global value chain trade flows



Source: Boffa, Jansen and Solleder (2017a)

Falling transport and communications costs permit larger multinational corporations to splinter their production lines geographically and design supply chains that allocate different parts of the production process to firms in different countries (Baldwin 2014). Materials and components are processed or services are rendered – hence value is being added – in multiple countries that are part of the supply chain. By locating sourcing activities and tasks in different countries as a function of their comparative advantages, total production costs are reduced.

[2] ITC (2017). SME Competitiveness Outlook. The region: A door to global trade

This is where trade facilitation comes in as one of the key enablers of GVC participation for the enterprises of any country. In the era of GVCs, where traded merchandise crosses borders many times through its production lifecycle, fast and efficient customs and port procedures are essential to the smooth functioning of value chains. To compete globally, private sector actors need to maintain lean inventories and respond quickly to demand in order to participate in just-in-time supply chains. This is not possible when intermediate inputs suffer unpredictable delays at the border. A country where inputs can be imported and exported quickly and reliably is a more attractive location for foreign firms seeking to outsource stages of production. Trade facilitation measures are crucial to fostering integration with global production networks and markets.

According to an OECD study, traditional trade – where countries produced finished products and exported to other countries – now accounts for just one quarter of total trade in goods and services.[3] The remaining three quarters of trade is in intermediate goods and services. Countries that still depend on outdated procedures have practically shut themselves out of the vast majority of international trade flows.

Trade compliance and facilitation are evolving

The responsibilities of border agencies differ from country to country and are often the subject of regular reviews and modifications to ensure their ongoing relevance in an ever-changing world. Customs has traditionally been responsible for implementing a wide range of government policies spanning areas as diverse as revenue collection, interdiction of prohibited substances, the protection of cultural heritage items and the enforcement of intellectual property laws. The current global trade landscape, and the rise in the threat posed by international terrorism, has seen border agencies emerge as important government bodies in most countries. A general indication of the role of a government's customs authority can often be gleaned from how administrative responsibilities are structured. For example, in some countries where revenue collection is the main focus, the customs administration generally forms part of the treasury or finance portfolio. Conversely, in countries where customs administrations are seen to play a border protection role, they are likely to be aligned with agencies that have a border management focus.

The World Customs Organization (WCO) membership includes national customs administrations and was an early proponent of abandoning the traditional gatekeeper mentality. Through the provisions of the Revised Kyoto Convention, the WCO is attempting to achieve the general adoption of a risk-managed style of regulatory compliance. The Revised Kyoto Convention incorporates important concepts of contemporary compliance management. These include the application of new technology, the implementation of new philosophies on customs control and the willingness of private sector partners to engage with customs authorities in mutually beneficial alliances. Central to the new governing principles of the Revised Kyoto Convention is a required commitment by customs administrations to provide transparency and predictability for all those involved in aspects of international trade.

The key challenge for all border regulatory agencies, especially customs administrations, is to balance the enforcement of controls with efforts to facilitate trade. When trade was growing at a fast pace during the latter part of the 20th century, the emphasis was naturally on facilitation. Priorities changed with the terrorist attacks in the United States on September 11, 2001. After this, the focus in most countries shifted towards border protection. With the emphasis on security, businesses suffered direct and indirect costs at the border, facing serious procedural delays in the midst of a lack of predictability in regulations. After several years, the situation resolved itself and, according to the 2007 World Bank Doing Business Report, "improved security in many cases made trading across borders faster, not slower."

While trading may have become faster, associated costs have remained high in many countries. According to the OECD, "[c]rossing the border, documentation and customs compliance requirements, lengthy administrative procedures and other delays can increase transaction costs an estimated 2 to 24% of the value of traded goods."[4] In addition, the WTO estimates that, "Trade costs in developing countries are, on average, the equivalent of a 219 per cent import tariff."[5] In other words, for each dollar it costs to make a

[3] OECD (2015). Trade Policy Implications of Global Value Chains

[4] OECD (2013). Trade Costs: What Have We Learned? A Synthesis Report

[5] WTO (2016). Trade costs and inclusive growth: Case studies presented by WTO chair-holders

product, it costs a further $2.19 to bring it to consumers in developing countries. For high-income countries, this cost is approximately $1.34. Reducing these trade costs could have a significant impact on the accessibility and affordability of ICTs in developed and developing countries alike.

The linkages between trade compliance and trade facilitation are well documented, making the implementation of the WTO TFA even more important. Studies have shown that compliance with trade rules can be further improved, and eased, if the following considerations are taken into account. As the examples illustrate, most of the measures in the WTO TFA respond to these needs.

Making rules and regulations easily accessible to the relevant stakeholders
Article 1 of the WTO TFA on publication and availability of information obliges WTO members to publish the relevant information promptly in a non-discriminatory and easily accessible manner. It also seeks the establishment of Enquiry Points to answer questions and provide documentation. Article 3 on advance rulings requires that the governments issue an advance ruling to applicants having submitted a written request.

Seeking stakeholders' input in framing rules so that they take ownership of the process
Article 2 in the WTO TFA (related to opportunity to comment, information before entry into force and consultations) asks members to provide opportunities to traders and other interested parties to comment on the proposed introduction or amendment of laws and regulations. It also provides for regular consultations between its border agencies and its traders.

Making rules impartial, non-discriminatory and transparent
Article 5 of the WTO TFA related to other measures to enhance impartiality, non-discrimination and transparency lays down measures to enhance impartiality, non-discrimination and transparency of regulations. Furthermore, governments are required to promptly terminate or suspend notification or guidance when the circumstances giving rise to it no longer exist.

Providing incentives for compliance
Article 7 related to release and clearance of goods provides for special incentives for those who have a clean track record in complying with the rules. In terms of this provision, those who attain the status of Authorized Operators have access to additional trade facilitation measures related to import, export, or transit formalities and procedures.

Encouraging voluntary compliance
Article 12.1 related to measures promoting compliance and cooperation stresses the importance of voluntary compliance by allowing importers to self-correct information without being penalized under appropriate circumstances.

Encouraging cooperation and collaboration
To ensure that different departments dealing with trade procedures work together, Article 23.2 of the WTO TFA requires the establishment of a national trade facilitation committee. Furthermore, as stated in Article 23.1, a WTO Committee on Trade Facilitation has been set up for the purpose of international cooperation.

Two other considerations to ease trade rule compliance that are not specifically addressed in the WTO TFA are: repealing redundant rules that are no longer valid or required; and using risk assessment tools, internal control, and post audit tools to ensure security management.

A number of TFA measures encourage the use of ICT to address bottlenecks in trading procedures and to reduce waiting times for traders. For example, the TFA allows importers/exporters and other operators to submit all the necessary paperwork prior to the arrival of goods so that most of the formalities are expedited once the goods arrive at the border (see Box 1). Electronic submissions are recommended so that traders do not have to visit the border location needlessly.

Box 1 WTO TFA Article 7.1 – Pre-arrival Processing

7.1.1 Each Member shall adopt or maintain procedures allowing for the submission of import documentation and other required information, including manifests, in order to begin processing prior to the arrival of goods with a view to expediting the release of goods upon arrival.

7.1.2 Each Member shall, as appropriate, provide for advance lodging of documents in electronic format for pre-arrival processing of such documents.

Source: WTO Trade Facilitation Agreement

Similarly, payments can be made electronically rather than physically visiting banks or government departments (see Box 2). The TFA also provides the option to postpone payment of duties and get goods released while the amount of duty is being determined. Furthermore, there are provisions for minimizing inspections and performing necessary checks through post-clearance audits

Box 2 WTO TFA Article 7.2 – Electronic Payments

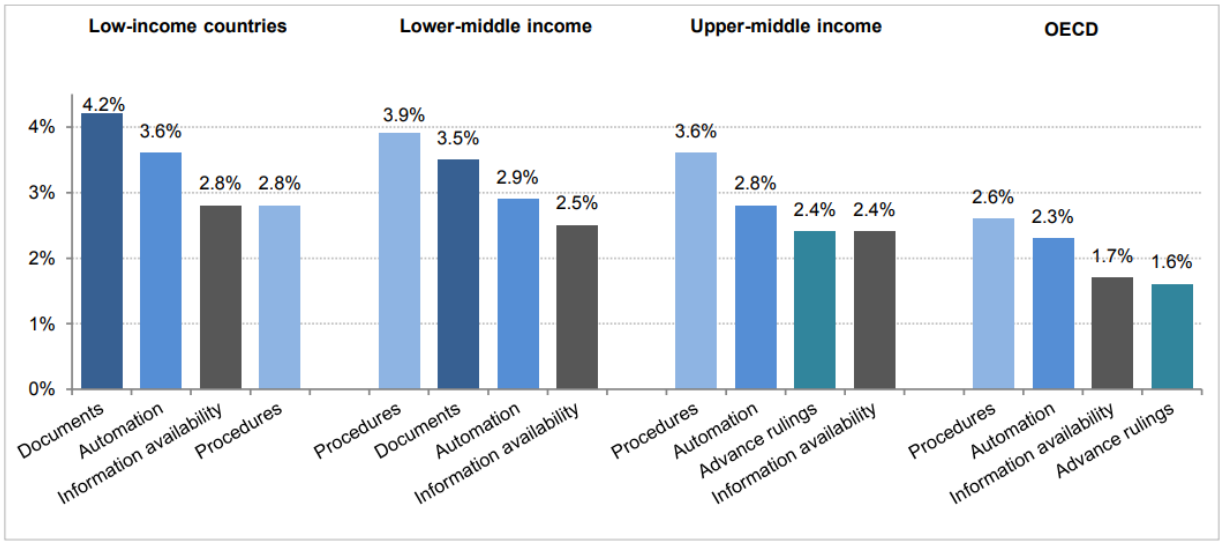
Each Member shall, to the extent practicable, adopt or maintain procedures allowing the option of electronic payment for duties, taxes, fees and charges collected by customs incurred upon importation and exportation.

Source: WTO Trade Facilitation Agreement

Another tool enterprises can use to help cut red tape is through the achievement of Authorized Operator (AO) status. Based on their compliance record, AOs enjoy several advantages, including: low document and data requirements; a low rate of physical inspections and examinations; rapid release time, deferred payment of duties, taxes, fees and charges; use of comprehensive or reduced guarantees; a single customs declaration for all imports or exports in a given period; and clearance of goods at the premises of the authorized operator or another authorized location. Further details of this scheme are discussed in Chapter 4. Many countries also allow additional facilities such as moving goods in temporary storage between different countries and acceptance of special statuses beyond national borders.

When countries face challenges in TFA implementation, they can seek technical assistance to build capacity. It should be noted that the priorities and focus of measures for different countries often depend on the level of development of the national business environment (see Figure 3). Trade facilitation automation is an important factor for improving national business environments for countries at all levels of development. Full implementation of the TFA may be a major step in accelerating country and industrial integration into global value chains.

Figure 3 Potential trade cost reductions from facilitation measures, by income group



Source: OECD, 2015, covering 152 countries.

Governments: Helping traders be competitive and compliant

International competition has intensified with increased globalization and trade liberalization. Competition between businesses that aspire to participate in regional and global value chains depends, to a large extent, on the business environments they operate in and across. Some governments resort to investing public funds or subsidies to support exporters and enable them to compete with exporters from other countries. However, it has been observed that subsidy schemes are economically inefficient. Studies have shown that export subsidies are not very effective in increasing exports and frequently do not pass the cost-benefit analysis test. Furthermore, WTO rules prohibit most subsidies directly linked to the volume of exports.

Other policies such as import substitution, pursued by several developing countries during the second half of the 20th century, are deeply problematic. Countries that earnestly implemented the WTO Agreement on Trade-Related Investment Measures have become far more competitive compared to those that attempted to circumvent its disciplines through parallel schemes (e.g. increasing tariffs on imports of like products). Similarly, the openness promoted by the multilateral trading system has helped improve the standard of living of billions of people worldwide by creating new economic opportunities and providing consumers with more choice and lower prices.

Forward-looking governments have been able to create favourable business environments. Key policies include those that enable exporters to access cheaper inputs through lower tariffs on imported goods, promote trade facilitation and build the capacity of stakeholders. Such policies need to be complemented by measures in other areas such as skills development, improvements to infrastructure and productivity-enhancing reforms. Governments can help exporters become competitive by benchmarking their own performance. International and regional organizations have developed studies, toolkits, indicators and analytical products that can help countries determine their competitiveness in terms of their policies and procedures. For example, the World Bank Logistical Performance Index is an interactive benchmarking tool created to help countries identify the challenges and opportunities in national trade logistics performance.

Other tools can be used to concurrently improve compliance and increase facilitation. These include using OECD trade facilitation indicators to identify priority areas for action. As these indicators closely correspond to the provisions of the TFA, the indicators can help assess the potential impact of its implementation. Indicators also provide a basis for governments to prioritize trade facilitation and compliance-improving actions as well as to seek required technical assistance and capacity building interventions from donors.

The WTO and World Customs Organization (WCO) also have many tools and policy guidelines that aim to enhance the facilitation and compliance levels of traders. For example, Article 7.6 of the TFA encourages

countries, “to measure and publish their average release time of goods periodically and in a consistent manner, using tools such as, *inter alia*, the Time Release Study of the WCO.” This tool has helped in: identifying bottlenecks in the international supply chain and constraints affecting the release of goods; benchmarking a country’s comparative position in terms of the time it takes to process clearance of goods and comparing results against its competitors; and enabling a country to assess newly introduced and modified techniques, procedures, technologies and infrastructure, or administrative changes.

As mentioned in Chapter 1, risk management systems play a major role in trade compliance and trade facilitation areas of international trade. However, the use of ICTs in conducting automated risk assessments is not very common and many countries are still using complicated and inefficient systems. Trust in legacy systems is not high, and any countries still insist on physical inspection of all consignments. According to the Global Express Association, only 67 out of 140 administrations surveyed applied an automated risk-based selectivity assessment, 25 of them examined all shipments and the remaining countries randomly selected shipments for inspection or at the discretion of the inspection officer on duty.[6] Hence, risk assessment was a basic difference between governments that were able to cut costs while ensuring compliance and others that were likely resistant to change. The application of risk management should be done in good faith, avoiding abuse or misuse of provisions relating to risk profiling. Systems that require examination of 100%, or any other fixed percentage of consignments, would generally not be compatible with risk management principles.

Compliance: Part of business strategy

Customs agencies around the world are the gates that shipments need to pass through, and they can be a potential hold up points for goods. If the information required to clear the gates is not available at the appropriate time, the gate can close and bring a supply chain to a stop. In addition, there may be charges for cargo examinations, resulting in additional costs for importers. For example, if cargo is selected for examination, it will generally be moved to a privately operated examination station and unloaded for inspection. The importer will be billed for the storage, movement and loading/unloading of the freight, among other charges.

Most border agencies encourage compliance with national and international rules and regulations, but also have a mandate to counter non-compliance. Customs authorities often impose fines and penalties on a case-by-case basis depending on the seriousness of the offense. In a number of cases, the contravening goods may be confiscated, and additional penalties may be imposed. In some circumstances, such as the smuggling of illicit goods, administrations can resort to prosecution and imprisonment.

The consequences of not complying with customs regulations can be catastrophic. In the United States, failure to meet a customs requirement can result in fines of up to $100,000 per violation, loss of trading privileges, seizure of merchandise and jail time.[7] It should be noted that ignorance of customs law is not a valid legal defence. Article 6 of the TFA provides for fines and penalties that any customs administration can impose for breach of customs laws, regulations, or procedural requirements. Such penalties can be imposed only on the persons responsible for the breach under its laws and must be commensurate with the degree and severity of the breach.

To achieve trade compliance from a business perspective, a company should generate consistent and informative import and export documentation to reduce the likelihood of delays with customs authorities. A centralized global trade management solution can automate the creation of import and export documents, minimize errors and generate auditable records that lower the potential for inspection. The benefits of an automated system include: obtaining a single view of product information throughout the supply chain, across the enterprise and with trading partners; ensuring that products are classified correctly and comply with regulatory and license requirements; screening of trade partners against restricted party lists from

[6] Global Express Association (2018). Customs Capability Reports. Use of risk in customs efficiency

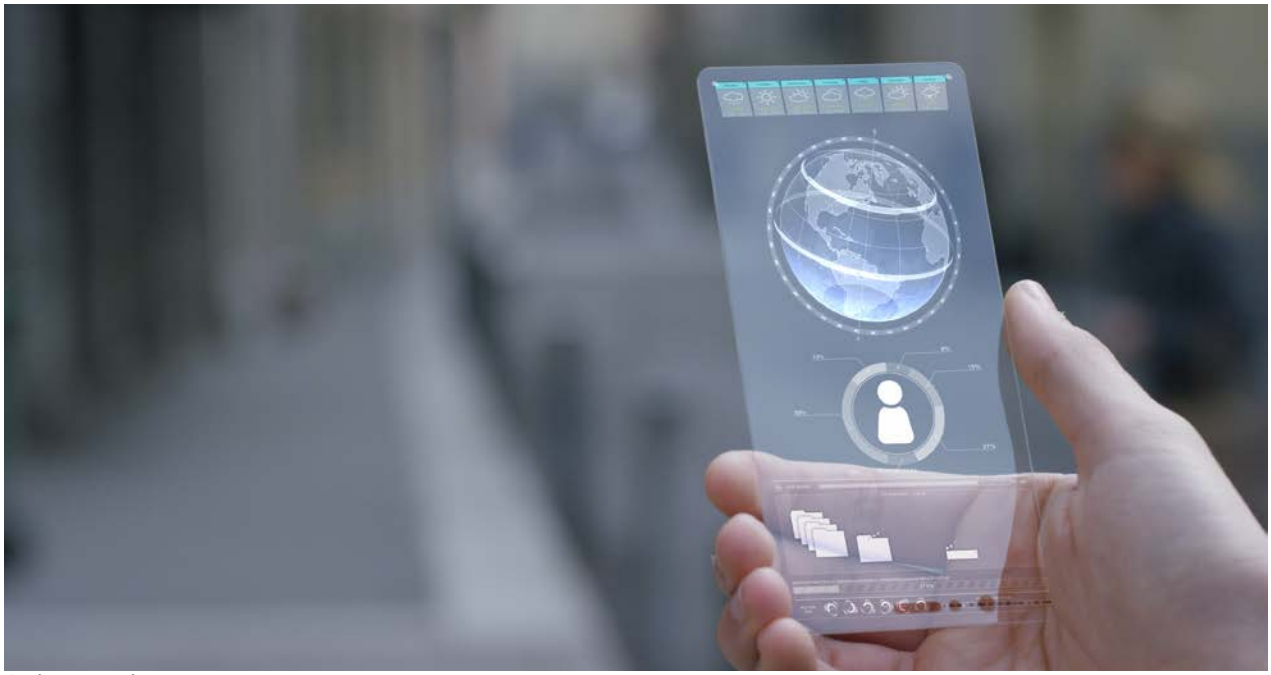
[7] SDC Executive (2014). Why you need trade compliance to maximize global supply chain profits

governments worldwide; calculating and comparing total landed costs to and from multiple locations; managing critical supply chain issues; and expediting the resolution of issues or bottlenecks.

From a government perspective, border agencies should encourage staff to be vigilant and many administrations reward those who detect misdeclarations. The TFA provides that penalty measures should avoid conflicts of interest and that the levy of penalties should not create an undue incentive for the assessment. To promote transparency, members are required to give an explanation in writing to specify the nature of the breach and the applicable law, regulation or procedure for the amount or range of penalty that was prescribed for the breach. In addition to financial penalties, violators face significant business disruptions and reputational damage, including loss of contracts.

With the expansion of the role performed by customs authorities, many administrations are now more concerned with offences, such as: the trafficking of illicit drugs; smuggling of endangered species and nuclear or hazardous goods; protection of intellectual property rights; and compliance with international standards. Customs must also be watchful of bribery, antitrust, competition issues and other risks. In light of these trends, it is easy to see why trade compliance has become both a strategic issue and an operational imperative for business. Enterprises that consider trade compliance to be part of their corporate goals, and embeded into their day-to-day operations, are ensuring that trade and technology enable their overall business strategy.

CHAPTER 3 IMPLEMENTING THE WTO TRADE FACILITATION AGREEMENT



© shutterstock.com

The WTO Trade Facilitation Agreement (TFA) aims to expedite the movement, release and clearance of goods, including goods in transit. It also sets out measures for effective cooperation between customs and other regulatory authorities. The TFA contains provisions for technical assistance and capacity building for developing countries and LDCs. As the first multilateral agreement to follow the creation of the WTO, the TFA has several unique features, including links between the commitments of developing countries and LDCs and their capacity to implement them.

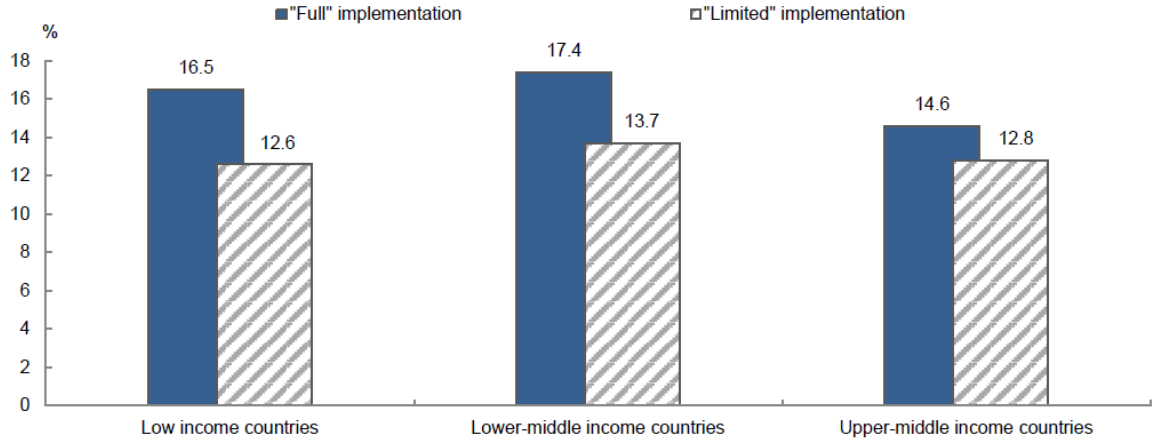
The origin of the TFA can be traced to the Singapore WTO Ministerial Conference in 1996, but it was not until July 2004 that WTO members agreed to formally launch negotiations. After almost 10 years of arduous negotiations, the TFA was finally concluded in December 2013 at the Bali Ministerial Conference. It entered into force on 22 February 2017 following its ratification by two-thirds of the WTO membership.

Significant trade benefits

According to the OECD, the hidden costs of trade in some cases could be as high as 15% of the value of the goods traded. Revenue losses from inefficient border procedures have been estimated at more than 5% of GDP in some cases. OECD estimates indicate that two-thirds of TFA benefits will accrue to developing countries. Overall, the potential cost reduction from full implementation of the TFA is estimated at 16.5% of total costs for low-income countries, 17.4% for lower middle-income countries, and 14.6% for upper middle-income countries (see Figure 4).[8] WTO estimates based on full and expeditious implementation of the TFA between 2015 and 2030 show that the TFA could reduce trade costs by an average of 14.3%.

[8] OECD (2015). Implementation of WTO TFA: The potential impact on trade costs

Figure 4 Total potential trade cost reductions by income group



Source: OECD (2015). Implementation of WTO TFA: The potential impact on trade costs

In terms of an increase in merchandise exports linked to the TFA, estimates vary from $750 billion to $1 trillion per year (Computable General Equilibrium modelling) or from $1.8 trillion to $ 3.6 trillion (gravity model). Developing countries and LDCs seem to be the biggest winners, with estimated export gains of between $170 billion and $730 billion per year, depending on the scenario and the extent of export diversification (measured by the number of destinations per product).

Full implementation of trade facilitation reforms may deliver some $1 trillion in global export gains (Hufbauer and Schott 2013). The World Economic Forum estimates an increase of approximately $2.6 trillion (4.7%) in global GDP and growth of $1.6 trillion (14.5%). Reducing barriers to trade in supply chains could increase world GDP by six times more than just eliminating tariffs.[9]

Using a large dataset from a variety of developing countries, Hoekman and Shepherd (2013) found that firms of all sizes benefit from improved trade facilitation by exporting more in response to improvements such as reductions in the time taken to export goods. The TFA has been designed to benefit everyone, from a small grower of perishable agricultural products or MSMEs producing small components, to a large manufacturer competing at the global level.

MSMEs account for more than 95% of firms in most economies and a significant amount of employment, but they still remain under-represented in international trade. Several studies, including the World Bank Enterprise Survey, show that this is partially due to the existence of trade costs. As trade costs fall, low-productivity firms on the verge of becoming exporters will start to find it profitable to export. Trade facilitation can, therefore, promote the entry of MSMEs into export markets.[10]

In developing countries, MSMEs often require numerous documents to engage in import and/or export. MSMEs tend to dedicate more resources to trade than their larger business counterparts. Completing and scrutinizing a larger number of documents implies a longer time required to complete trade procedures. Full implementation of the TFA will be to the benefit of small enterprises and make a contribution in helping more women, most of whom are small traders, to better participate in international trade.

There is also evidence of strong linkages between trade facilitation and foreign direct investment (FDI). A 2017 report from the Global Alliance for Trade Facilitation found that a 1% improvement in the trade facilitation environment corresponds with a 3.2% increase in FDI for manufacturing. While this does not imply causation, the report argues the importance of trade facilitation in attracting and retaining investment.

Developing economies with strong trade facilitation environments have also been found to attract high-value investments, especially in desirable industries such as automobile parts and aerospace manufacturing.

[9] Hoffmann (2016). World Economic Forum. 7 reasons why the Bali TFA needs to happen

[10] World Bank (2009). Trade Facilitation and Expanding the Benefits of Trade: Evidence from Firm Level Data

Several earlier studies show a similar link between trade facilitation and a country's investment climate (Dollar et al. 2006).

Countries with inefficient trade procedures have been shown to receive less FDI (Olofsdotter and Persson 2013, Portugal-Perez and Wilson 2015). According to Engman (2009), inefficient trade procedures result in higher trade costs that are then factored into the cost-benefit analysis of companies when making foreign investment decisions. As much as it increases trade, trade facilitation also tends to increase the probability of vertical FDI (Persson 2012).

Corruption in trading networks increases costs and could lead to a reduction in a country's trade flows. The TFA is not equipped to tackle corruption directly, but implementing its provisions faithfully will have a positive impact on reducing corruption in a country's trading regime. Due to greater transparency, trade facilitation measures reduce various forms of rent-seeking and trade-related corruption.

Studies show that a 10% increase in trade time leads to a 14.5% fall in bilateral trade in a low-corruption country.[11] The same figure for a country with high levels of corruption could be as much as 15.3%. By reducing the time required to move goods across borders, trade facilitation is a useful instrument for supporting anti-corruption efforts at the border. Guaranteed availability of advance rulings is helpful for ensuring harmonized system classification accuracy. At the same time, ICT platforms, such as single window systems (see Chapter 5), can reduce differences in law enforcement at different ports and opportunities for corruption.

Box 3 The TFA and the Sustainable Development Goals

Not many would consider a direct link between the TFA and the SDGs but many provisions contribute to these UN goals. TFA Article 1 covers the publication and availability of information on import, export and transit procedures, and SDG target 16.10, *inter alia*, aims at ensuring public access to information. Article 5 of the TFA requires, *inter alia*, that governments publish certain announcements in a non-discriminatory and easily accessible manner. This is more easily achieved if traders have access to the Internet, as stipulated in SDG target 9.c. Article 6 of the TFA includes the requirement to avoid conflicts of interest in the assessment and collection of penalties and duties, which can help to reduce corruption and bribery, covered by SDG target 16.5. Finally, many trade facilitation measures directly help informal businesses to better participate in foreign trade, thus supporting SDG target 8.3 on the formalization and growth of micro, small and medium-sized enterprises.

***Source*:** UNCTAD Brief 42, December 2015

Key articles in the WTO Trade Facilitation Agreement

The substantive provisions of the TFA are organized in 12 articles containing approximately 35 technical measures. These are partly binding obligations and partly best endeavour type commitments that set out good regulatory practices. These 12 TFA articles are presented in greater detail below.

Publication and availability of information

Article 1 asks WTO members to promptly publish information regarding customs procedures and on applied rates of duties in a non-discriminatory and easily accessible manner. It also asks members to establish one or more enquiry points to respond to such enquiries and requests within a reasonable time frame.

[11] WTO (2015). World Trade Report

Opportunity to comment on proposed laws and regulations

Article 2 requires members to provide an opportunity for interested parties to comment on proposed laws and regulations and provides for stakeholder consultation with border agencies. The article asks members to make any new laws or changes in existing laws publicly available as early as possible for comment before their entry into force.

Advance rulings

Article 3 requires customs authorities to provide a written ruling on request from a trader concerning the tariff classification or origin of his goods. The ruling is binding on customs authorities and remains valid for a reasonable period. A trader has the right to be notified if customs takes certain actions contrary to his/her interests, such as a refusal to issue a ruling or a decision to revoke or modify a ruling.

Procedures for appeal or review

Article 4 requires members to establish non-discriminatory procedures for appeal on administrative decisions. It makes transparency and notice on all fees compulsory, as well as limiting any fees or charges for the costs of services rendered and imposing penalties in writing solely on those responsible for any breaches.

Other measures to enhance impartiality, non-discrimination and transparency

Article 5 sets requirements for notifications and testing of foods, beverages, or feed for animals with the view to protecting the health of human, animal, or plant life. It also asks members to promptly terminate or suspend the notification once the circumstances giving rise to it no longer exist.

Disciplinary action on fees and charges imposed on or in connection with importation and exportation, and penalties

Article 6 obligates transparency and notice on all fees. It limits any fees or charges to the costs of services rendered, and stipulates that penalties are imposed only on those responsible for breaches and explained in writing. The amount and purposes of any fees or charges imposed on imports or exports must be consistent with the GATT Article VIII restrictions. Members are also asked to periodically review their fees and charges in order to reduce the number and variety.

Release and clearance of goods

Article 7 requires members to adopt procedures enabling traders to submit import documentation, and other information required for release of imported goods, in electronic format (where appropriate), prior to the arrival of goods in order to expedite release. It also encourages publication of release time information. Other key requirements include providing special measures related to authorized operators that meet published criteria.

Border Agency Cooperation

Article 8 requires internal cooperation between a member's border control authorities and agencies, and encourages cooperation between members to facilitate border crossings.

Movement of goods intended for import under customs control

In Article 9, members are required, to the extent practicable, to allow goods intended for import to be moved between customs offices within their territory.

Formalities connected with importation, exportation and transit

In Article 10, members are asked to use formalities and documentation requirements that are the least trade-restrictive. They are encouraged to accept paper or electronic copies, use of international standards, and

establishment of a single window. Further, compulsory use of pre-shipment inspection requirements and mandatory use of customs brokers are not allowed.

Freedom of transit

Article 11 requires members to eliminate or reduce regulations or formalities on transit if they are no longer required or a less trade-restrictive solution becomes available, and they should not be applied in a manner that would be a disguised restriction on trade. Further, any charges imposed on transit should only be for transit administrative services provided, and should be limited in amount to the expense of such procedures or cost of such services. Members are also asked not to maintain voluntary restraints or similar measures on traffic in transit.

Customs cooperation

Article 12 encourages sharing of best practices in managing customs compliance and sets terms for exchanges of information requests and responses between members while protecting confidentiality. Members are asked to provide, upon request and subject to conditions, information and/or documents concerning specific import or export declarations.

Special and differential treatment provisions

The TFA is unique and historic in that it offers a new approach for the implementation of its measures and allows more flexibility to developing countries, and especially LDCs, through special and differential treatment provisions. All WTO members are required to organize each of the TFA's 36 provisions into three categories, as defined below, and notify other WTO members of these categorizations.

- **Category A**: Provisions that the member will implement by the time the Agreement enters into force, (or in the case of an LDC within one year after entry into force);
- **Category B**: Provisions that the member will implement after a transitional period following the entry into force of the Agreement;
  Category C: Provisions that the member will implement on a date after a transitional period following the entry into force of the Agreement and requiring the acquisition of assistance and support for capacity building.

Most common measures notified in Category A

According to the WTO Secretariat, the five most common measures notified to date in Category A include (see Figures 5 and 6):

- Allowing a declarant to move goods from a customs office of entry to another customs office within the same customs territory (Article 9);
- Deciding to not introduce the requirement for the mandatory use of customs brokers and having broker-licensing rules transparent and objective (Article 10.6);
- Committing to not introduce any pre-shipment inspection requirements in relation to tariff classification or customs valuation. If they are already doing so, they are required to end such requirements (Article 10.5);
- Committing to adopt customs procedures for the temporary admission, inward processing and outward processing of goods (Article 10.9);
- Agreeing that their customs authorities will apply import and export procedures and documentation requirements consistently and uniformly (Article 10.7).

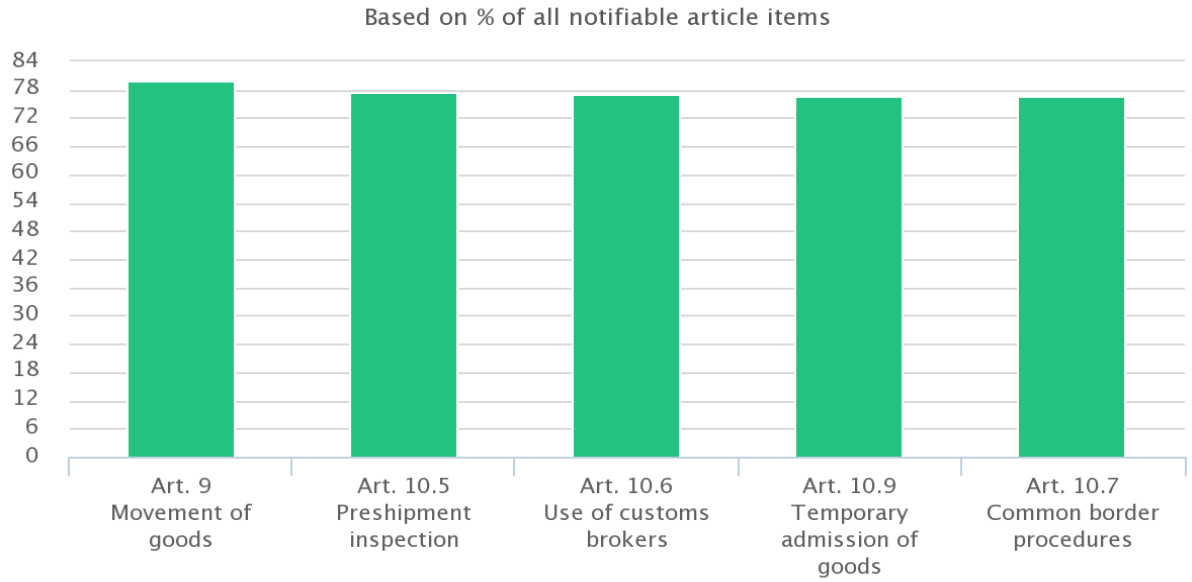
There are several TFA provisions that are new forms of policy delivery for many WTO members. It is interesting to note that the five least notified measures require IT systems for their implementation as per best international practices. This is an indicator of the level of difficulty in implementing a provision.

The most difficult provision seems to the establishment of a national single window system (Article 10.4) where traders can submit all documents and from where they can receive all notifications. The administrations that list single window in their Category B or C notifications have indicated its implementation over a five-year period. One of the problems is that there are too many agencies, of which customs is just

one, involved in the processing of papers and people at the border. A World Bank study suggests that customs is only one of the agencies involved in border processing, and it is often responsible for no more than a third of regulatory delays.[12]

Often, customs agencies already employ IT systems to process declarations and use some form of risk management. However, other agencies are frequently less modernized. Despite significant efforts made by the World Bank and other donors, border management inefficiencies continue to impact the competitiveness of businesses from developing countries and LDCs.

Figure 5 Most notified measures in TFA Category A



Source: WTO (2018). TFA Database

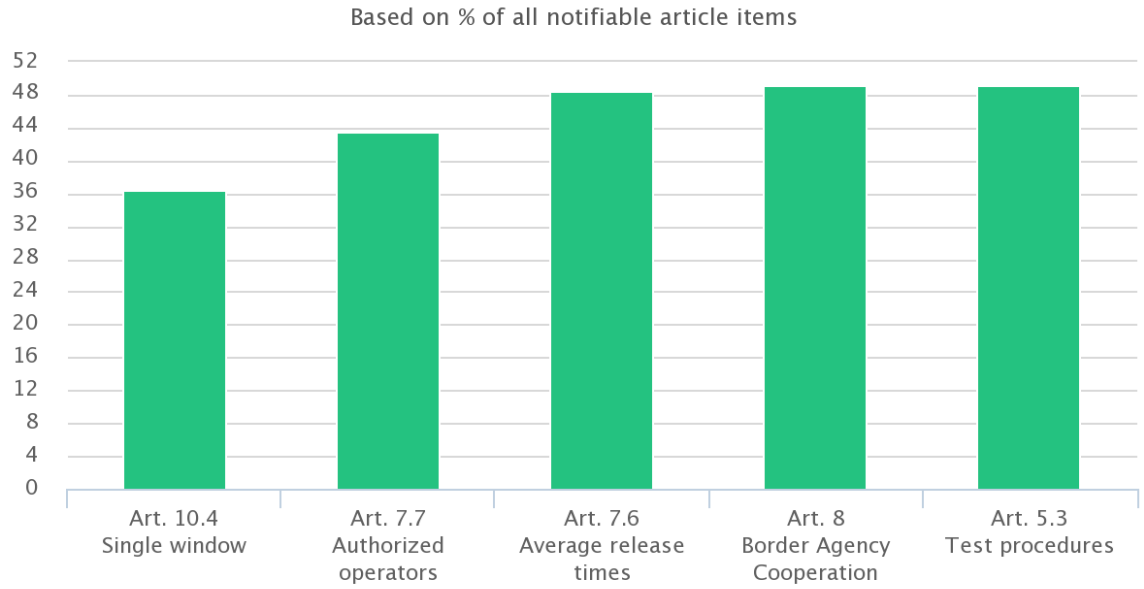
Implementation of the authorized operators scheme (Article 7.7) also seems to pose problems for many countries. This could be because it takes time to verify compliance records with customs (due to lack of legacy IT systems) and to determine if firms have trustworthy systems of managing records for necessary internal controls, financial solvency or supply chain security. According to the WCO Secretariat, 167 countries have already commenced implementation of the Scaled Agile Framework *(SAFe)* or expressed their intention to do so. Progress on this provision should move faster than the number of TFA notifications would suggest.

Another difficult area, not listed, is for customs to implement Article 3, requiring members to provide a written ruling on request from a trader concerning the tariff classification or origin of goods. The problem here may be that the ruling has to be binding on customs and a trader has the right to be notified if customs decides to revoke or modify it. More and more developing countries are putting this system in place, but setting up a new system requires time and resources.

Implementation of Article 7.6, relating to publishing of average release time, is another problematic area due to the capacity of many customs. This provision encourages WTO members to measure and publish, on a periodic basis and in a consistent manner, the average time it takes to release goods and to share their experience in carrying out these measurements with the WTO Trade Facilitation Committee.

[12] World Bank (2010). Border Management Modernization: A Practical Guide for Reformers

Figure 6 Least notified measures in TFA Category A



Source: WTO (2018). TFA Database

Another provision that has been relatively less notified is Article 5.3. This asks members to grant traders the right to a second test, where test results on a sample of goods taken upon arrival of goods declared for importation are not in the trader's favour. Members are also asked to consider the results of the second test.

If these notifications are compared to those most notified for Category C, there is a clear relationship. The implication is that many WTO members feel that they would not be able to implement the provisions without technical assistance. More often than not for developing countries and LDCs, technical assistance is required in technology implementation initiatives.

A main concern of developing countries relates to the cost of fully implementing the TFA. Costs include capital expenditure for the introduction of IT systems and recurring costs for maintaining equipment and paying salaries to new staff. To provide financial and/or technical assistance, the TFA calls on donor members and international organizations to provide support to developing country and LDC members of the WTO.

Several initiatives have been in operation since the start of the negotiations. According to the OECD, since 2005, approximately $1.9 billion has been disbursed in aid for trade facilitation. Donor commitments directed to simplifying and modernizing border rules and procedures reached $670 million in 2013, an almost eight-fold increase from the 2002 to 2005 baseline average. The largest beneficiary was Africa, which received $268 million in 2013, a 25-fold increase over a 10-year period. In addition, the equipment and infrastructure needs of trade facilitation reforms have also benefited from the substantial funds directed to trade-related infrastructure, with $18.7 billion devoted to transport and storage and $1 billion devoted to communications in 2013".[13]

[13] OECD (2015). Trade Policy Note

ICT makes procedures transparent, efficient

Technology has played an important role in transforming the nature of global trade, especially with the rise of e-commerce and the proliferation of digital technologies. In addition, ICT has an important role to play in trade and border efficiency. With a focus on connectivity, ICTs have the potential to drive transformation by improving operational efficiency, cutting costs, promoting TFA implementation, and creating further economic opportunities.

Difficulty in obtaining accurate and reliable information on import, export or transit requirements can be a source of delay and costs. Transparency of relevant domestic regulations, procedures and practices is widely recognized as essential for ensuring that regulatory objectives are achieved efficiently while enhancing the benefits expected from trade and investment liberalization. To improve transparency, the TFA requires governments to publish certain specified trade information in an easily accessible manner, including publication of the required forms and documents on the Internet, as well as a practical description of import, export, transit and appeal procedures. In the digital age, the easiest way to provide transparency and maximize the reach of information is through ICTs.

Automated customs procedures will lead to increased ICT adoption and make the collection of tariffs and other charges more transparent, reduce clearance times, and improve efficiency and predictability. These factors help governments and traders to save costs either directly or indirectly. ICTs have been widely used in customs management (e.g. e-port, online supervision of processing trade, e-manuals, single window portals and paperless customs clearance), and as new technologies are applied, customs clearance becomes faster and customs management more efficient.

TradeNet, for example, has been Singapore's Electronic Data Interchange system for automated border management and supervision since 1989. Through this platform, Singapore shares customs information with several developed countries, including Japan and the United States, making use of highly efficient information sharing and processing. Such portals are a good example of how standardized customs operations can create win-win results. Electronic customs portals allow companies to enjoy easier and faster customs clearance at reduced cost, removing the need to ever go to the port, since all procedures can be handled online. The benefits of automation of customs systems include:

- Increased tariff revenue and other types of revenue, thanks to unified law, automated calculation of tariffs and other charges, as well as intrinsic security and improved administration;
- More accurate and timely foreign trade statistics by government;
- Improved transparency of policy and administrative procedures;
- Faster cargo release after customs clearance;
- Simpler procedures based on international standards and simpler documentation;
- Reduced physical inspection;
- Separation of tax and other payments from goods clearance;
- Fewer audits after cargo release;
- Supports e-governance and the development of e-commerce.

Cargo release time is reported to have reduced sharply in some countries, e.g. from five days to two hours in Zambia, and from four days to three hours in Yemen. After adopting the United Nations/Electronic Data Interchange for Administration, Commerce and Transport standard, Chilean customs reduced the average import clearance time from 10.8 hours with the previous paper documentation system to 2.2 hours. In addition, physical inspection was 5–12% less due to the adoption of the risk-based customs supervision system.

ICT solutions for TFA implementation

With the entry into force of the WTO TFA, information technologies now play an essential role in the implementation of trade facilitation measures. A number of steps can be followed to assess a country's needs and to determine how ICT techniques and solutions may contribute to TFA implementation.

Situational analysis

The first step is to conduct a gap and situational analysis of the national situation with respect to the WTO TFA. A detailed exercise was carried out by the WTO and other relevant international organizations to assist developing countries and LDCs to identify their needs, including self-determination of the time that would be needed to implement each provision and technical assistance requirements. Almost 100 members requested this assistance in the first instance and around 80 members did so in the second round. This has provided a good basis for the preparation of the Category A, B, C notifications. As more notifications are received and processed by the WTO, a clearer picture is emerging.

Applying ICT techniques and solutions

A second step in the situational analysis involves selecting and applying various ICTs and techniques to meet the above-mentioned needs. For this purpose, different international organizations have prepared guides and are conducting technical assistance programmes to promote the implementation of trade facilitation tools.

The World Customs Organization (WCO) has developed a self-assessment tool to help guide countries through a series of logical steps that will enable them to implement the Revised Kyoto Convention. Since most provisions of the TFA are based on the Revised Kyoto Convention, the tools developed by the WCO also serve the purposes of TFA implementation.

The Automated System for Customs Data system, developed by the United Nations Conference on Trade and Development (UNCTAD), has successfully provided ICT solutions for more than 90 countries. The system handles most trade procedures and can be adapted to cater to new measures, such as implementing TFA provisions and modernize customs procedures. Furthermore, the programme accounts for all international codes and standards relevant to the TFA and is supported by an international team of experts. The system has been operational in countries with differing geographical and institutional backgrounds.

Other examples of ICT solutions can be found in various regional trade facilitation initiatives. For example, the United Nations Economic and Social Commission for Asia and the Pacific has concluded a Framework Agreement on Facilitation of Cross-border Paperless Trade in Asia and the Pacific. The initiative launched in October 2016 and sets out an ambitious roadmap for streamlining cross-border trade procedures through a paperless trade system including national single windows. Similarly, the Asian Development Bank has been supporting initiatives for modernizing trade facilitation procedures in the Asia Pacific region. These include major projects for Central Asia Regional Economic Cooperation members. Other initiatives to promote good practices in trade facilitation include the South Asia Sub-Regional Economic Cooperation, the Greater Mekong Sub-Region, and the Brunei Darussalam-Indonesia-Malaysia-Philippines East Growth Area (BIMP-EAGA) of the Association of Southeast Asian Nations.

Evaluating the effectiveness of ICT solutions

Various methods can be used to evaluate the effectiveness of ICT solutions for meeting TFA requirements. In Article 7.6, members are encouraged to measure and publish their average release time of goods periodically and in a consistent manner, using tools such as the Time Release Study of the WCO. Members are encouraged to share with the WTO Trade Facilitation Committee their experiences in measuring average release times, including methodologies used, bottlenecks identified, and any resulting effects on efficiency.

If the average time taken between the arrival of the goods and their release shows improvement, it would indicate that ICT solutions are working well. It would also allow customs to identify both the problem areas and potential corrective actions to increase their efficiency. The Time Release Study also demonstrates the efficiency of customs or other border agencies and provides guidance to customs administrations on the best way to apply this method of internal review.

There are independent rankings that can measure the results of any reforms including the effectiveness of ICT solutions. These include the World Bank Logistics Performance Index, the World Bank Doing Business report, the OECD Trade Facilitation Indicators (TFIs) and the World Economic Forum / Global Alliance for Trade Facilitation Enabling Trade Index.

ICT in cross-border customs management

Customs automation and digitalization can fall into three parts. Firstly, there is electronic customs that works to digitize customs clearance management. Secondly, there is an electronic port (or electronic law enforcement system) that supports electronic data interchange between port authorities and law enforcement, enables online inspection, and allows enterprises to handle customs formalities online. Finally, electronic general administration concerns monitoring, decision support, and confidential work. The development of a customs intranet is a major step for building an electronic general administration. There are a number of customs authorities using ICT solutions to address different aspects of border management.

Electronic customs

E-customs refers to the customs information system that covers nationwide customs services, connects customs agencies and different ports of entry, and aims to digitize customs clearance procedures and intelligently monitor logistics. E-customs has made coordinated customs clearance possible and facilitated a series of regulatory reforms such as fast customs clearance and transit, fast-track customs clearance channels for high-tech companies, online supervision of processing trade, and paperless customs clearance.

E-port

China’s e-port is an example of a cross-cutting, cross-region, and cross-industry public data centre and data exchange platform based on telecom companies' public switched telephone network. The platform connects government authorities in charge of customs affairs, foreign trade, forex management, taxation, industry and commerce, as well as quality supervision, inspection and quarantine for sharing information about imports and exports, cash flow, and goods flows via e-ledger. This enables the administrative body to perform cross-cutting and networked verification. The e-port also serves as an online data exchange platform for enterprises and intermediaries to access import and export services.

E-general administration

Built on e-customs, e-general administration serves to digitize service monitoring and assisted decision making, as well as to consolidate nation-wide customs data and conduct comprehensive data analysis so as to ensure smooth administrative procedures across the customs system.

As global trade becomes increasingly complex, customs administrations have more responsibilities, including: risk management; intellectual property protection; counterterrorism and anti-nuclear proliferation; monitoring and investigation against money laundering; environmental protection; food and drug safety; anti-smuggling; trade security and facilitation; international cooperation; national macro-economic regulation and control; and maintenance of market order. Digital and smart customs, supported by automation and ICTs, have the potential to significantly improve trade transparency by integrating trade facilitation measures.

Faster customs operations

Through e-ledger, a public data centre centrally stores information on a range of information, including imports and exports, cash flow, and goods flows of government authorities in charge of customs affairs, quality supervision, inspection and quarantine, and transportation. This enables cross-cutting and networked data verification and provides one-stop customs clearance logistics services, which can reduce customs release time significantly.

Efficient customs surveillance

High definition, 360-degree X-ray images produced by security scanners make customs inspection more efficient. In addition, CCTV surveillance systems help to relieve pressure and improve productivity of on-site cargo inspection staff. The build out of a logistics monitoring system that syncs with the customs clearance system can reduce intrusive examination, thus increasing the transparency of cargo inspections.

ICT and customs law enforcement

Building a comprehensive data network with professional systems and IT platforms helps to unify and standardize customs law enforcement. Law enforcement details by customs staff are monitored from end to end. In response to public needs, a nation-wide customs hotline can be set up to provide more open public services. This two-way approach helps to make customs law enforcement more transparent, promote law enforcement integrity, and proactively prevent corruption within the customs system.

Secure customs systems

The overall defence system runs separately from the customs IT system. Increasing the stability of onsite communications network, producing system reports, and removing security vulnerabilitiesare just some of the ways to control risks, facilitate audits, and make customs systems more secure and transparent.

CHAPTER 4 COMPLEMENTARITIES BETWEEN WTO AGREEMENTS

© shutterstock.com

The WTO Information Technology Agreement (ITA) marked its 20th anniversary on 1 July 2017. Over the past two decades, the ITA has emerged as one of the most successful of the WTO plurilateral agreements in terms of its impact on trade. The ITA has contributed to increasing trade in IT products, through the lowering of tariff barriers, and the global diffusion of information technologies.

The ITA requires signatories to eliminate tariffs on certain technology and telecommunications products by means of a zero-tariff binding on these products in their WTO Schedules of Concessions. These products include computers, semiconductors, software recorded in physical media, telecommunications equipment and analytical instruments. Tariff-free trade in these products has resulted in increased productivity, innovation and economic growth among ITA signatories.

The ITA was one of the earliest attempts at eliminating tariffs on a sectoral basis and was concluded in December 1996 by 29 members at the first WTO Ministerial Conference in Singapore. Being a plurilateral agreement, the ITA was conceived and executed outside of the formal “Single Undertaking”. However, thanks to the most favoured nation obligation embodied in GATT Article I, even WTO members that chose not to become ITA signatories still benefit from the duty free access that was granted to the products of ITA signatories.

This gave rise to a free-rider problem, implying that for the ITA to make sense economically and politically for its signatories, there needed to be a significant number of ITA signatories to constitute the bulk of global trade in these products (a so-called critical mass of signatories). This dynamic (i.e. the free-rider problem and critical mass issue) characterises and ultimately governs the fate of most plurilateral initiatives at the WTO.

Despite being voluntary, the number of ITA signatories has grown from the original 29 to 82 (as of June 2018). These economies account for 97% of global trade in information technology products and provide sufficient critical mass to overcome the free-rider problem. During these two decades, exports in ICT products have more than tripled, from an estimated value of $500 billion in 1996 to $1.6 trillion in 2016. Additionally, two-way trade has soared from $1.2 trillion to $5 trillion. The value of trade covered by the ITA is larger than global trade in textiles, clothing, iron and steel combined, and exceeds the combined global trade in automotive and agricultural products.

Box 4 The ITA helps Costa Rica boost its ICT sectors

Since Costa Rica joined the ITA in 1997, it has implemented a number of policies to attract foreign direct investment in high-tech sectors, including ICT. These policies have borne fruit, and Costa Rica is currently Latin America's largest high-tech exporter and the world's fourth most technology intensive exporter per capita. Costa Rica also enjoys the third largest share of inbound foreign direct investment per capita. Multinationals in Costa Rica's high-tech sector pay wages that are 20%–52% higher than local companies and generate $5 billion in annual exports, boosting Costa Rican living standards considerably.

***Source*:** "How Joining the Information Technology Agreement Spurs Growth in Developing Nations", Information Technology & Innovation Foundation by Stephen J. Ezell And J. John Wu (May 2017).

Although ICT has been one of the fastest growing industries, with technological advances giving rise to a steady stream of new products, the scope of ITA product coverage has remained constant. The Committee of Participants on the Expansion of Trade in Information Technology Products (ITA Committee), established when the ITA was concluded in 1997, is tasked with the review of product coverage in light of subsequent technological developments. In December 2015, at the 10th WTO Ministerial Conference in Nairobi, a sub-group of ITA participants concluded a separate agreement that expanded the product coverage of the ITA, referred to as the Expanded ITA or ITA 2.

Driven by business demand

While negotiations on the expansion among signatories to the first Information Technology Agreement (ITA 1) were not making progress, the private sector continued its efforts to bring about a positive outcome to the talks. It was generally felt that it was only thanks to the vocal interest of the private sector that ITA 1 had been successfully concluded and the same would be true of any concerted effort to expand the product coverage.

During the WTO Uruguay Round, the private sectors of the so-called Quad, an informal group comprised of the four largest trading nations - Canada, the European Union, Japan and the United States - had played a leading role in tariff liberalization. The most aggressive of these was the American Zero Tariff Coalition, which brought together a broad cross-section of the most competitive 125 major American industries and accounted for around 30% of American merchandise trade. Their proposals, among others, included one seeking zero-for-zero or full liberalization of tariff on electronics and other high-tech goods.

In 1994, and after the formal conclusion of the Uruguay Round, computer manufacturers in the United States regrouped under the umbrella of the Information Technology Industry Council (ITI) with the objective of maintaining the recently achieved trade-liberalizing momentum. After first convincing their own government and then industry groups in other countries of the need to pursue further liberalization in high-tech goods, the ITI's ideas were reflected in the 1995 Proposal for Tariff Elimination, which sought the elimination of tariffs on computer hardware as well as software by the year 2000.

The ITI succeeded in convincing the European Association of Manufacturers of Business Machines and Information Technology Industry and the Japanese Electronic Industry Development Association to join its efforts. The Information Technology Association of Canada later joined. Owing to the efforts of these industry groups, WTO members were able to conclude the ITA soon after the conclusion of the Uruguay Round.

After successfully pushing for the original ITA, the group had hoped that the ITA Committee would continue to work on the expansion of the products as and when they came on the market. However, this did not

happen, as it was difficult to achieve consensus among signatories on the inclusion of various new products. Since the IT industry was evolving rapidly and many new products started appearing on the market, the industry started exploring other forums for promoting their objectives related to tariff-free trade. One such important forum was the annual gathering of the Asia-Pacific Economic Cooperation (APEC) leaders. The fact that the focus of APEC was on trade and investment liberalization also helped the process.

At the 19th APEC Summit in November 2011, more than 40 IT industry associations from around the world asked the leaders of the 21 APEC economies to launch negotiations to expand the product coverage of the ITA. Similar calls were made at successive APEC conferences whenever WTO negotiations for expanding the scope of the ITA became deadlocked.

Similar calls were made through other forums. At the World Electronics Forum meeting in January 2012, members of the global high-tech industry and consumer associations noted their strong support for the immediate expansion of the ITA's product coverage. At the WTO/ITA Expansion Symposium held in October 2012 in Japan, the three IT Associations of the EU, Japan and United States floated a joint paper calling for the expansion of the ITA.

Spurred on by their respective private sectors, it was at the 15th anniversary of the ITA in May 2012 that several countries felt the need to re-energize the negotiations for expanding the product scope of the agreement. Soon an informal process for launching the negotiations started. This led to the setting up of a technical working group on the margins of the ITA Committee. Originally, the working group had 33 WTO members, but this soon increased to 54, including all members of the EU. After three years of difficult negotiations, the ITA expansion (ITA 2) was concluded on in December, 2015. Originally started in June 2012 by six WTO members (the EU, United States, Japan, Korea, Taiwan and Costa Rica), eventually 25 WTO members (counting EU members as one) became signatories.

This was the first major tariff-cutting agreement at the WTO since the original ITA. The agreement resulted in the elimination of approximately 65% of tariff lines by 2016, accounting for around 88% of imports. By 2019, this is expected to increase to 89% of tariff lines and 95% of imports, and is set to reach 100% after seven years. ITA 2 implies that import duties will be eliminated on 201 high-tech products with annual trade estimated at $1.3 trillion, accounting for approximately 10% of world goods trade.[14] Products covered by ITA 2 include: new generation multi-component integrated circuits (MCOs); touch screens; GPS navigation equipment; portable interactive electronic education devices; video game consoles; and medical equipment.

Participants in ITA 2 account for 96% of global trade in its enumerated ICT products. Like ITA I, ITA 2 was negotiated on an unconditional most favoured nation basis. This implies that participants have lowered tariffs for all WTO members (including non-participants) on the 201 additional ITA products within three years, with reductions beginning in 2016-17.

Complementarities

The ITA and TFA are two of the most important agreements concluded under the auspices of the WTO since it was established in 1995, and there are many complementarities between the two instruments. As discussed in Chapter 3, without using ICT tools, it is practically impossible to fully implement all the provisions of the TFA. If availability of ICT goods is restricted through high tariffs, their use is automatically limited. Greater use of ICTs and trade facilitation measures enhance the production and innovation capacity of all actors involved in international trade. These stakeholders include producers, suppliers, transporters, importers, exporters or logistics services providers.

With appropriate trade facilitation policies, the export and import of ICT goods can flourish. Similarly, through greater use of ICTs in trade facilitation (e.g. single window systems and automated risk profiling), the flow of cross-border goods becomes frictionless. Thus, the agreements are mutually reinforcing and both support the integration of businesses into GVCs. Both agreements also serve a general purpose and impact all sectors of the economy, promoting scale, volume and efficiency in international trade. For the less integrated countries, accession to the ITA and full implementation of TFA may be an optimal policy mix. Concurrent

[14] WTO (2015). News item. WTO Members conclude landmark $1.3 trillion IT trade deal

application of these two agreements could considerably lower costs and increase productivity, and better integrating a country's industries into the world trading system.

Studies show that the implementation of the ITA and tariff elimination on ICT goods increases their usage. Gurbaxani et al. find that for every 1% drop in price in ICT products, there is a 1.5% increase in demand. [15] Greater use of ICT enhances competitiveness and export potential. A study of 4,800 MSMEs, across several countries, found that companies using web technologies grew twice as fast as those with minimal Internet presence. The ITA enables small traders to access, afford and use information technologies.

Both agreements have the ability to promote transparency and reduce corrupt practices. The TFA does so by making it obligatory that all information regarding rules, regulations and laws be published and made available publicly. The ITA does this by lowering costs for IT products and thus encouraging greater adoption and diffusion of computers and electronic processes rather than relying on manual methods. Both agreements can therefore play a core role in harmonizing and standardizing trade procedures as well as promoting predictability and the simplification of rules.

For modern trade facilitation, the use of ICTs is essential and is one of the reasons that many TFA provisions refer to mandatory or voluntary use of ICT. For example:

- Article 1.2 of the TFA encourages members to make available trade-related information through the Internet. This includes trade-related legislation; promptly publishing information about trade procedures for importation, exportation, and transit; forms and documents; and applied rates of duties and taxes.
- Article 7.8 recommends the use of tracking technology for maintaining a high degree of control over expedited shipments from pick-up to delivery.
- Article 10.4 asks WTO members to use information technology, to the extent possible and practicable, to support single window systems.

Thus, both agreements complement each other in bringing more efficiency, effectiveness, transparency and compliance to customs clearance procedures.

Agreements help bridge the digital divide

The digital divide refers to economic and social inequality in access, use and impact of ICTs. It could either be the gap in availability of broadband infrastructure or the gap in broadband uptake between various organizations or communities, with socio-economic factors often being key drivers. Most developing countries have access to ICTs, but in many cases adoption is limited by various constraints, including skills gaps and the high costs of online access.

The ITA and TFA play a crucial role in connecting the full range of activities that enterprises and workers perform to bring a product from its conception to end-use and after-sale services (i.e. a value chain). This includes activities such as production, marketing, exporting and distribution to consumers. Without trade facilitation and ICT, it would be difficult for GVCs to function efficiently. The adoption of modern trade facilitation policies coupled with ICT infrastructure enables the smooth cross-border and domestic flow of goods and services. Countries may not be competitive in international trade without the wide-scale adoption of ICTs and implementation of trade facilitation measures.

Box 5 A Dutch online dispute resolution platform

Rechtwijzer 2.0, the Dutch digital platform for dispute resolution, is a collaborative effort between HiiL Innovating Justice, the Dutch Legal Aid Board, Modria, and the Dutch Ministry of Justice and Security. The online-based dispute resolution platform aims to inform people about their legal options as well as to support legal professionals so they can intervene more effectively. The initiative uses market-based approaches that benefit society. Such platforms can be established for resolving trade-related disputes.

***Source*:** World Economic Forum (2017). Innovation in the digital economy through the lens of the NRI.

[15] Dedrick, Gurbaxani, and Kraemer (2003). Information Technology and Economic Performance: A Critical Review of the Empirical Evidence

Implementation of the ITA and TFA can serve as starting points for bridging the digital divide. By lowering the tariffs on ICT goods, governments lower the cost of these products to consumers and to the businesses that rely on them. At the same time, implementation of the key provisions of the TFA enables a country to perform a diagnosis of the shortcomings in its trade facilitation policies and use of ICTs, helping to start to bridge the gaps. Trade facilitation reforms and use of ICTs create a positive feedback loop by enhancing and amplying their individual effects.

Overall, both agreements are unique WTO instruments. They can serve as development tools for developing countries and LDCs. Both promote the connectivity of MSMEs, create new opportunities and encourage the evolution of business models. For these reasons, several international and regional organizations have published guides and launched initiatives to support the use of ICT and to help close the digital divide (see Boxes 5, 6 and 7).

Box 6 The World Economic Forum's Internet for All initiative

Internet for All is one of the core projects of the World Economic Forum's Digital Economy and Society System Initiative. As a critical enabler of the fourth industrial revolution, Internet for All focuses on connecting the over 4 billion people not yet connected to the Internet. The project's core objective is to develop scalable, replicable, public-private collaboration models to accelerate Internet access and adoption at the national, regional, and global levels.

In 2015, Internet for All convened stakeholders from various backgrounds to collect successful practice examples for global Internet access and adoption, and to develop a framework in which to accelerate achieving internet connectivity for everyone. The framework emphasizes the need for an ecosystem approach to simultaneously address the challenges related to infrastructure, affordability, skills and awareness, and content. The report also includes a checklist, based on the framework, to help policymakers and others assess where their countries currently stand and the kinds of programmes to consider.

Internet for All has two main objectives. The first is to develop new scalable and replicable on-the-ground models of public-private collaboration, in partnership with governments, to accelerate the achievement of the broader social and economic priorities of the country/region. Programmes will be launched initially in up to three countries/regions. The first such programme, for Northern Corridor countries in East Africa (Kenya, Rwanda, South Sudan, and Uganda), was launched in May 2016, and additional country programme partnership opportunities in Asia and Latin America will also be explored. The second objective is to develop a physical and digital platform that results in increased coordination and collaboration among the multiple private, bilateral/multilateral, and non-profit organizations involved in catalysing Internet access and adoption at the global, regional, and country levels.

***Source*:** World Economic Forum (2016). White paper "Internet for All: A Framework for Accelerating Internet Access and Adoption"

The World Customs Organization (WCO) has published numerous papers and guides for facilitating the implementation of ICT solutions for customs procedures. The Revised Kyoto Convention includes a comprehensive set of guidelines on ICT. They cover information for customs decision-makers when computerising or upgrading existing infrastructure, as well as business needs, tendering, purchasing, systems development, main application areas, security, audit, authentication technologies and legal issues.

Another relevant WCO publication is its *IT Guide for Executives*. The booklet addresses important aspects of ICT solution development and deployment for decision-makers within customs and those responsible for implementing ICT solutions. It discusses the importance of a strategic approach for ICT planning and the role of leadership in change management. The publication also discusses aligning strategic goals with key performance indicators, sound planning and prioritizing ICT projects.

The WCO has also promoted digital customs to its members for some time. In order to raise awareness of the importance of ICT for customs and closing the digital divide, the WCO declared 2016 as the Year of Digital Customs.

Box 7 Accenture's annual Technology Vision report

Accenture's annual Technology Vision report seeks to identify the top trends that will impact major organizations in the next few years, highlighting the technology innovations that leaders must plan for. Below are trends in the Technology Vision 2015 report that are impacting customs agencies and their leaders as they enter a new era of digital trade to deliver public service for the future.

Internet of Me: Public services personalized

Across the customs supply chain, traders, agents, freight forwarders, carriers and border agencies are embracing new digital technologies. To remain attractive destinations for trade, customs agencies must personalize their services and provide more engaging user experiences, making life easier for the trading community, other border agencies and customs staff.

Outcome Economy: Linking digital and physical to drive outcomes

Increasingly, low-cost hardware in the form of sensors, combined with greater processing power, is helping customs agencies to understand what is happening at the edge of their networks.

Platform (R)evolution: Platform-based public services

New waves of innovation are driving an urgent need for a common digital platform across the customs supply chain. Using well-defined architectures, governance and services, new digital platforms will be accessible by the entire trade ecosystem, as well as third party service providers.

Intelligent Enterprise: Huge data, smarter software, better outcomes

Customs agencies are getting smarter. By mastering their data, leading customs agencies will be able to provide actionable insights to pre-emptively tackle fraud and risk, promote legitimate trade and create more personalized experiences for their users.

Workforce Reimagined: Governing at the intersection of humans and machines

New technologies such as wearables and the Internet of Things are driving customs agencies to rethink their existing talent deployment and operational processes.

***Source*:** Accenture Consulting (2017)

The United Nations Economic Commission for Europe (UNECE) Trade Facilitation Implementation Guide shows how the entire clearance process – from lodging, acceptance and processing of cargo and goods declarations for import, export and transit, payment of applicable duties and taxes, to release of the goods from customs' control – can be accomplished through the use of ICT. It also explains how ICTs can be used for pre-arrival processing and automated release of securities and guarantees as well as to facilitate the use of risk management and risk-based selectivity and the collection of data for reporting external trade statistics.

In order to cope with expanding trade and shrinking resources, stakeholders across supply chains have been advancing efforts for automation and digitisation. According to Thomas Friedman, convergence of the personal computer with fibre-optic micro cable, along with the rise of workflow software, will have a flattening effect on world commerce and trade. It will create a level playing field, where developing economies will be able to compete with developed economies on even terms, leveraging converged ICT.[16]

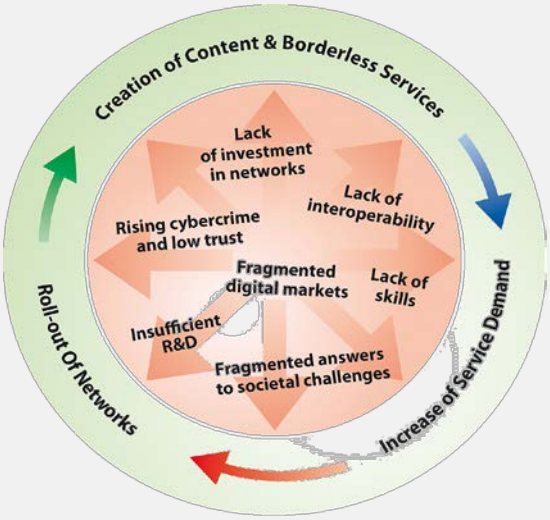
[16] Friedman (2005). The world is flat

Yet, a flattening effect on world commerce and trade will only happen when people have access and adequate know-how to seize the many opportunities presented by ICTs. Learning from countries that have been able to successfully close the digital divide may be of help. For example, the EU has been following a successful strategy for closing the digital divide among its member states and populations (see Box 9).

Box 8 Closing the Digital Divide in Europe

According to Eurostat, in 2016 about 85% of European households had access to the Internet from home. This is a considerable improvement from 2007 when only 55% of households had access to the Internet. This increase has had a lot to do with the EU's intensive efforts to remove digital inequalities that exist within the 27 European Union States (EU-27).

In 2010, the EU Commission launched the Digital Agenda for Europe as one of the seven flagship initiatives of the Europe 2020 Strategy. It identified the seven most significant obstacles, listed in the inner cycle of the following figure.



To overcome these barriers, the Commission identified eight action areas. It also set up a monitoring mechanism known as the Digital Transformation Monitor, and a Digital Transformation Scoreboard, which measures progress on digital transformation in EU countries and proposed country-specific policy recommendations.

***Source*:** European Parliament (2015). Bridging the digital divide in the EU

What else is needed

There are other factors to consider when assessing the potential of a country to bridge the digital divide. Firstly, the most important factor to consider is the political will of government and the identification of the digital divide as a priority issue. A second key factor to consider is the level of awareness of the benefits of ICT, especially at a national level. For example, importers or exporters may adopt digital technologies if these enterprises are aware that, through the use of ICT, they can obtain relevant information or pay their taxes electronically.

Another factor to consider, when assessing how to close the digitial divide, is the option to turn to the private sector for assistance or engage in public-private partnerships. For example, in many developing countries, port operations handled by the private sector are often fully automated. To help bridge the digital divide with government departments, operators are frequently willing to provide technical and other forms of assistance. Also, with the help of numerous international organizations, NGOs and governments, technical and financial assistance is being provided to address the needs of stakeholders in eliminating the digital divide.

CHAPTER 5 SOLUTIONS TO SUPPORT TRADE FACILITATION

© shutterstock.com

The mandate of the World Customs Organization (WCO) is to enhance the effectiveness and efficiency of its members (i.e. customs administrations). The WTO defines and ensures the rules of international trade for its members. Organizations are partners for cooperating on and implementing trade facilitation policies and approaches. Both are intergovernmental organizations with global memberships covering more than 99% of global trade. They have a common interest in ensuring the smoothest and most efficient flow of global trade.

While the WTO deals with the rules of trade between members, and for this purpose has supported the negotiation of a far-reaching and comprehensive system of trade agreements, the WCO develops and maintains instruments and recommendations for the standardization and simplification of customs systems and procedures governing the cross-border movement of goods. The WCO plays a central role in implementing the WTO TFA.

Both organizations have a long history of cooperation that includes the role of the WCO in managing two WTO agreements, the Customs Valuation Agreement and the Agreement on Non-Preferential Rules of Origin. In the case of the TFA, the WCO has been actively contributing to the implementation agenda through the submission of papers, participation in training seminars and capacity building programmes. It has been actively participating in the WTO needs assessment missions. In fact, the cooperation between the WCO and the WTO has been afforded a strong legal basis by its inclusion in Article 23 of the WTO TFA (see Box 9).[17]

[17] To make technical assistance and capacity building more effective and operational and to ensure better coherence, Modalities for Negotiations on Trade Facilitation (Annex D of the 'July 2004 package') lists several relevant international organizations, including IMF, OECD, UNCTAD, WCO and the World Bank who were invited to undertake a collaborative effort in this regard.

Box 9 TFA links to the World Customs Organization

The WTO TFA states that:

- The Committee shall maintain close contact with other international organizations in the field of trade facilitation, such as the WCO, with the objective of securing the best available advice for the implementation and administration of this Agreement and in order to ensure that unnecessary duplication of effort is avoided…

***Source*:** WTO Trade Facilitation Agreement. Article 23

As many of the TFA provisions are based on WCO's instruments and conventions, knowledge of customs regulations is essential for providing technical assistance and capacity building for the implementation of the TFA. Customs authorities are the primary government agency responsible for implementing the TFA and it is important that WCO members are fully aware of the benefits of modernized customs rules and use of ICT to support trade facilitation.

A role for the World Customs Organization

In July 2004, WTO members agreed to launch negotiations for a new agreement, "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." The WCO pledged to contribute to the initiative with technical expertise in customs matters.[18]

At the outset of the negotiations, the WCO noted that all the provisions and the principles in the WCO instruments are compatible with and complementary to Articles V, VIII and X of the GATT 1994. For example, the updated International Convention on the Simplification and Harmonization of Customs Procedures, known as the Revised Kyoto Convention 2006 sets forth the following key principles:

i) Transparency and predictability of customs actions;

ii) Standardization and simplification of the goods declaration and supporting documents;

iii) Simplified procedures for authorized persons;

iv) Maximum use of information technology;

v) Minimum necessary customs control to ensure compliance with regulations;

vi) Use of risk management and audit-based controls;

vii) Coordinated interventions with other border agencies;

viii) Partnership with the trade. Each of these activities is reflected in the WTO TFA in some form or another.

The WCO is continuously developing and updating its rules and recommendations to help customs adjust to changing global trade scenarios including the increased use of ICT. A few examples of the instruments developed by the WCO include: the Time Release Study, to measure and report the time for customs to release imported cargo (mentioned in Article 7.6 of the TFA); the WCO Data Model, to compile datasets for different customs procedures; the Risk Management Compendium, to provide customs with a structured and systematic way to manage risks; and the WCO SAFE Package, a framework of standards to secure and facilitate global trade.

[18] WTO (2004). Decision adopted by the General Council (Document Number: WT/L/579)

In June 2008, WCO members developed a new strategic perspective outlined in the document *Customs in the 21st Century, Enhancing Growth and Development through Trade Facilitation and Border Security*. The vision set out in this document foresees a globally networked customs, better-coordinated border management and intelligence-driven risk management. Other key features of this vision are customs-trade partnerships, implementation of modern working methods and greater use of modern technology.

Five years later in December 2013, the WCO's highest policy-making body – the Policy Commission – adopted the Dublin Resolution to emphasize its commitment to the efficient implementation of the TFA. As a follow-up to this resolution, the WCO has taken several steps in supporting its members in their efforts to achieve early and smooth implementation of TFA obligations. These efforts include, inter alia, assisting WCO members in identifying their needs, conducting capacity building and technical assistance projects, developing training courses and publishing relevant information. Frequently, the WCO meets these needs through support from various governments and development agencies that fund technical assistance and capacity building activities. The WCO has a database of over 400 accredited experts from its members.

The WCO Mercator Programmeme, launched in June 2014, is another significant initiative to support implementation of the TFA. Through this programme, the WCO provides custom-made support for implementing the TFA. Currently, the WCO is managing a number of projects that operate under this modality and that benefit from funding provided by various countries as well as international organizations.

To share experiences with the implementation of the TFA, the WCO has established a TFA Working Group, which discusses and coordinates the activities of the donor community, and engages with other international organizations and bodies, as well as with the private sector. To show support for each other's activities relating to the implementation of the TFA, senior management of both organizations has recently been participating at top-level policy-making forums.

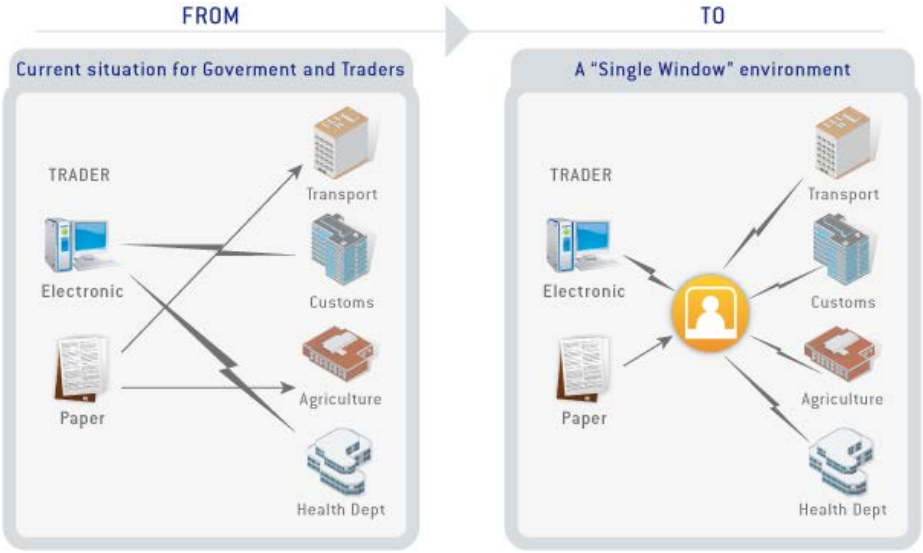
Cooperation with WTO

TFA Article 10.4 requires that WTO members, "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."

How this should be done is explained by the WCO through its compendium *How to Build a Single Window Environment*, which provides information and guidance for all stages of single window development.

The compendium contains an executive guide (volume 1) designed for senior management and dealing mainly with issues that concern them, including an overview of a single window, explanations on how different countries have built it, achievements in terms of trade facilitation, and lessons learned in the process. Detailed guidance for technical experts, such as various tools and techniques, are provided in the professional practice guide (volume 2), along with case studies from various administrations on their experiences in developing their own single window environment.

Figure 7 The evolution of single window systems



***Source*:** UNECE (2018) Trade Facilitation Implementation Guide

The emergence of Authorized Economic Operators

Following the terrorist attacks of 11 September 2001, the United States and several other countries sought the assistance of the WCO in securing global supply chains. In response, at the annual Council Sessions in June 2002, the WCO set up a Joint Customs-Industry Task Force on Security and Facilitation. The task force made several recommendations that were reviewed by a high-level strategic group and private sector consultative group, and were subsequently adopted by the WCO Council in June 2005. These recommendations are known as the Standards to Secure and Facilitate Trade (SAFE) and relate to issues such as harmonizing advance cargo information, introducing risk management approaches, and joint targeting and screening.

Over the last decade, the SAFE recommendations have been modernized and improved, with changes including the adoption of the Authorized Economic Operators (AEO) Guidance in 2006; and renewal and combination of SAFE and AEO Guidance in a single document in 2007. The last update was in June 2015 when, among other things, new recommendations to foster closer cooperation between customs and other government agencies were added. Pre-loading advance cargo information and guidelines for the procurement and deployment of scanning equipment were also added. The SAFE framework now plays a key role in balancing facilitation and control, while promoting the security of global trade supply chains.

An AEO is defined as a party involved in the international movement of goods, in whatever function, that has been approved by, or on behalf of, a national customs administration, in compliance with WCO or equivalent supply chain security standards (see Box 12). AEOs include, inter alia manufacturers, importers, exporters, brokers, carriers, consolidators, intermediaries, ports, airports, terminal operators, integrated operators, warehouses and distributors. Designed to promote customs-business partnerships, the origins of the AEO concept can be traced back to the WCO Revised Kyoto Convention, where it was known as the authorized person. The concept was further elaborated in the WCO SAFE Framework and renamed the AEO. The SAFE Framework establishes the following six standards for AEO programmes:

Partnership

AEOs engage in a self-assessment, measuring their internal policies and procedures against security standards and best practices. This assessment is done to ensure that AEOs provide adequate safeguards for shipments and containers until released from the control of customs.

Security

The main advantage of the AEO programme is mutual recognition of the arrangements by other governments, thus ensuring security and facilitating trade at both ends of the supply chain. AEOs incorporate programme-defined best practices for security into their business practices.

Authorization

Customs administrations, together with representatives of the trade community, design validation processes or quality accreditation procedures that offer incentives to businesses because of their status as AEOs.

Technology

All parties maintain cargo and container integrity by using modern technology.

Communication

Customs administrations regularly update security standards and supply chain security best practices defined in the AEO programmeme.

Facilitation

Customs administrations work cooperatively with AEOs to maximize security and facilitation of international trade supply chains originating in or moving through its customs territory.

Box 10 Who qualifies to become an AEO?

Any business in the international supply chain that meets certain standards in relation to:

- Safety and security
- Systems to manage commercial records
- Compliance with customs rules
- Financial solvency
- Practical standards of competence or professional qualifications

Source: Author's research

Box 11 The EU and China's Mutual Recognition Agreement

In November 2015, the EU and China signed a joint statement recognizing each other's certified safe traders. AEOs from these two major economies whose daily trade exceeds $1 billion will benefit from simplified procedures, faster controls and reduced administration for customs clearance. This will lower the costs of their imports and exports and also allow customs to focus their resources on real risk areas, thereby improving supply chain security on both sides.

Source: Author's research

As with other SAFE standards, those relating to AEOs are not legally binding. Most countries use them as a basis for introducing AEO systems in such a way as to make them suitable for the particular circumstances. Standards encourage customs administrations to agree on the mutual recognition of AEO schemes. A number of AEO mutual recognition arrangements and agreements have been concluded or are being negotiated among customs administrations that have sufficient trust in each other's audit, control and authorisation procedures. Generally, only administrations and governments that have confidence in the control mechanisms of another administration will enter into negotiations on mutual recognition (see Box 13). This is sometimes a challenge for developing countries, as economically advanced countries may prefer to sign such agreements with each other.

AEO status allows traders to work in close cooperation with customs authorities to assure the common objective of supply chain security. Operators can be accredited by customs as AEOs when they meet the above standards. Being recognized as an AEO means that customs trust the operator to act in line with its legislation and procedures.

Although the AEO concept was originally introduced because of security concerns, it has since evolved to become a major tool for facilitation of bona fide trade. AEOs can move their goods without the hassle of detailed customs inspections. Since the AEO concept embraces all transport modes – maritime, air and land, it means that the whole end-to-end supply chain can be secured. It also reduces the workload of customs so that it can devote its resources to checking riskier shipments. In addition, it has the potential to be aligned with similar programmes owned by other regulators, in particular the International Ship and Port Code of the International Maritime Organization and the Regulated Agent/Known Consignor Programmeme of the International Civil Aviation Organization.

There are now 52 countries that operate AEO programmes with over 30,000 certified companies, and another 11 country AEO programmes are under development. In many of these countries, the AEO initiative has become the leading platform for trade facilitation and compliance. It has enabled customs and traders to find the right balance between security and trade facilitation and ensure that limited resources are focused on high-risk cargo. The AEO programme is updated regularly through the AEO Implementation Guidance and the AEO Compendium, which is revised on an annual basis. This is helpful in meeting the needs of mutual recognition arrangements between various countries.

Different approaches

Like the Authorized Economic Operators (AEO), the Authorized Operator (AO) scheme introduced in the TFA (Article 7.7) also provides special or preferential customs treatment for reliable traders as well as other intangible benefits such as enhanced competitiveness and reputational value (see Box 13). However, the two schemes differ in some important respects.

Firstly, while the World Customs Organization's AEO scheme only applies to customs, the WTO TFA AO scheme applies to all border regulatory agencies. The AO scheme emanates from the WTO's TFA whereas the AEO concept originates from the WCO SAFE Framework. While the emphasis of the former is on trade compliance, and supply chain security may constitute one of the components, the latter must always (but not exclusively) comply with a range of security requirements.

Although the TFA encourages members to develop AO schemes on the basis of international standards, they are not pre-specified. On the other hand, global voluntary standards for AEOs are specified in the SAFE Standards. The eligibility criteria for AOs may include: an appropriate record of compliance with customs and other related regulations; a system for managing records for necessary internal controls and financial solvency; and supply chain security. None of these, however, are mandatory and the AO scheme may include any combination of the specified criteria. For AEOs, eligibility criteria include a demonstrated compliance record, a satisfactory system for the management of commercial records, financial viability, and security concerning cargo, transport conveyances, premises, personnel and trade partners.

In terms of benefits also, the two schemes have some key differences. AOs should employ at least three of the following trade facilitation measures: Low documentary and data requirements as appropriate; low rate of physical inspections and examinations as appropriate; rapid release time as appropriate; deferred payment of duties, taxes, fees and charges; use of comprehensive guarantees or reduced guarantees; a single customs declaration for all imports or exports in a given period; and clearance of goods at the premises of the authorized operator or another place authorized by customs.

In the case of AEOs, the benefits include reduced data sets for cargo release, expedited processing and release of shipments, minimum number of cargo security inspections, reduction of/exemption from bank guarantees, and priority inspection. Enhanced security also provides several intangible benefits to an AEO, including enhanced competitiveness and reputation.

Box 12 The WTO Trade Facilitation Agreement Authorized Operator scheme

In paragraph 7.1 of the WTO's TFA, members are required to, "provide additional trade facilitation measures related to import, export, or transit formalities and procedures, pursuant to paragraph 7.3, to operators who meet specified criteria, hereinafter called authorized operators." Alternatively, a member may offer such trade facilitation measures through customs procedures generally available to all operators and is not required to establish a separate scheme.

Paragraph 7.2, stipulates that the specified criteria to qualify as an authorized operator should be related to compliance, or the risk of non-compliance, with requirements specified in a members' laws, regulations or procedures. Such criteria may include: an appropriate record of compliance with customs and other related laws and regulations; a system of managing records to allow for necessary internal controls; financial solvency, including, where appropriate, provision of a sufficient security or guarantee; and supply chain security. Paragraph 7.2 also requires that criteria: not be designed or applied so as to afford or create arbitrary or unjustifiable discrimination between operators where the same conditions prevail; and should not, to the extent possible, restrict the participation of small and medium-sized enterprises.

In paragraph 7.3, trade facilitation measures provided pursuant to paragraph 7.1 should include at least three of the following measures:

(a) low documentary and data requirements, as appropriate;
(b) low rate of physical inspections and examinations, as appropriate;
(c) rapid release time, as appropriate;
(d) deferred payment of duties, taxes, fees, and charges;
(e) use of comprehensive guarantees or reduced guarantees;
(f) a single customs declaration for all imports or exports in a given period; and
(g) clearance of goods at the premises of the authorized operator or another place authorized by customs.

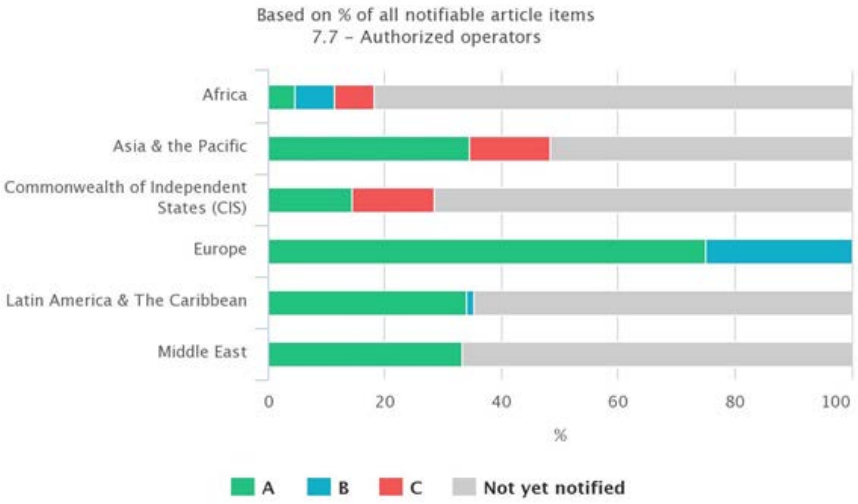
In paragraph 7.4, members are encouraged to develop authorized operator schemes on the basis of international standards, where such standards exist, except when, "such standards would be an inappropriate or ineffective means for the fulfilment of the legitimate objectives pursued." In order to enhance the trade facilitation measures provided to operators, paragraph 7.5 required members to give other Members the possibility of negotiating mutual recognition of authorized operator schemes. Finally, paragraph 7.6 requires members to exchange relevant information within the Committee about authorized operator schemes in force

Source: WTO Trade Facilitation Agreement. Article 7.7

Since AEO programmes have been in existence for over a decade, there are now 56 operational AEOs, with another dozen at finalization stage. There are also 28 Mutual Recognition Agreements for AEOs between various countries. So far, 46 countries have notified the WTO Secretariat regarding the establishment of an AO scheme.

AO programmes are less rigorous than their AEO counterparts and could be a stepping-stone for implementation of full-fledged AEOs. For AOs, the TFA requires that there should be no arbitrariness or unjustifiable discrimination and that there should be no restriction on MSMEs. For AEOs, there are no such guidelines.

Figure 8 TFA Authorized Operators, by category and region



Source: WTO TFA Database

Best practices: Authorized Economic Operator programmes

The SAFE Framework offers general principles and standards that member administrations of the World Customs Organization are encouraged to use in developing their cargo and supply chain security policies. At the same time, the framework allows some flexibility in order to accommodate different needs perspectives and resulting methodologies. Some programmes, such as in the EU, are open to all operators in the supply chain while others like that of the United States only allow importers to participate in Customs-Trade Partnership Against Terrorism (C-TPAT). The following are a few examples of successful AEO programmes operating in different parts of the world.

Uganda launched its AEO system in 2012, and as of August 2016, more than 20 companies accounting for 85% of customs revenues had been accredited as AEOs. In addition, 70 companies had applied for accreditation and were undergoing vetting. AEOs in Uganda enjoy several benefits, such as: automatic renewal of customs agency licenses; reduced physical examination of goods (to less than 5%); self-management of their customs bonds; direct consignment of goods to AEO premises; and dedicated relationship managers from the customs department.

The benefits derived from being an AEO encourage adoption of good business practices by importers and exporters. As a result of this and other related trade facilitation schemes, customs clearance times have reportedly been reduced from an average of five days (120 hours) to an average of one day (24 hours) for AEOs. Police escorts of transit cargo, which were used to ensure that transit goods exited the country, were all eliminated. The Uganda Revenue Authority has reported a 48% increase in customs revenues from 2011 to 2015.

Canada's AEO programme, Partners in Protection (PIP), has been operational since 1995. Its original emphasis was on promoting business awareness and compliance with customs regulations. Following the terrorist attacks in the United States on 11 September 2001, PIP's focus shifted to placing greater emphasis on supply chain security. The importance of the programme increased in 2002 when PIP membership became a prerequisite for participating in the Free and Secure Trade (FAST) programme. FAST provides expedited border clearances into Canada for pre-approved importers, carriers and drivers. In 2008, it was further strengthened to achieve mutual recognition and compatibility with the United States' C-TPAT programme. The new programme implements specific, minimum, security requirements, mandatory site validations and an automated application process.

The EU AEO programme, launched in 2008, caters to its 27 member states and is open to all operators in the supply chain. The programme offers simplified customs procedures to companies that prove to be safe, reliable and compliant with security standards. Certified AEOs have fewer inspections and speedier customs procedures. This benefits companies because goods can move faster from one destination to another,

lowering transport costs and facilitating more efficient trade. It also benefits EU customs administrations, which can concentrate their resources on checking high-risk transactions. The number of certified operators varies greatly with Germany in the lead and the Netherlands the runner up. The EU's AEO programme has wider scope compared to many other countries such as the United States.

In Japan, the AEO system has been successfully operating since 2006. There are now over 650 AEO programmes of which almost two-thirds are for exporters and warehouse operators. The unique feature of Japan's AEO programme is its reliance on post-authorization audits by customs. It is compulsory for an AEO to conduct an internal self-audit at least once a year. In the post-audit process, customs reviews the results of the internal audit and conducts interviews and on-site inspection of the premises and facilities of the AEO to confirm whether customs procedures are consistent with the compliance programme and protocols. Customs also reviews appropriate security measures at the cargo storage facilities, including the surroundings of the facilities.

In Hong Kong, China, there are no import duties and more than 98% of traders are small and medium-sized enterprises. The AEO programme, which has been operational since 2012, is unique in the sense that it is free and therefore conducive to MSMEs joining it. The way in which it was set-up did not involve additional expenses for the government.

India introduced its AEO programme in July 2016. The programme uses a trust-but-verify approach with the trade community. The AEO team checks on the company for its compliance record and financial solvency and evaluates its safety and security practices. To avoid delays in certification, there are time limits for conducting on-site verification and preparation of reports. For importers and exporters, there are three tiers of certification, with the third tier enjoying the highest level of facilitation.

Brazil's AEO programme, launched in December 2016, is similar to India's with a tiered system. It also incorporates three certifications that have different compliance requirements and benefits. Brazil is the eleventh country in Latin America and the Caribbean region to launch the AEO programme.

Along with brokers, importers and exporters, other establishments involved in international trade are eligible for AEO certification. Rotterdam World Gateway (RWG), an AEO-certified deep-sea container terminal is a good example. With its simplified customs procedures, a new 24/7 scanning facility that is fully integrated into the terminal's automated logistic process, and nuclear radiation detection, almost all administrative processes are digitized. Furthermore, the RWG has implemented a fully automated gate process for road haulers with no physical customs handling.

The success of Authorized Operator schemes

The AO/AEO concept is a win-win for building trust between public and private sector entities involved in international trade. Considering the increasing flows of trade and reliance on global value chains, early implementation of an AO/AEO scheme is vital for any country. Although there may be extra costs involved in obtaining certification, the investment allows a business to gain trust and build its international reputation. Since the scheme enables customs to give more attention to high-risk consignments, more efficient use can be made of scarce resources.

It is evident that the WTO TFA Authorized Operators (AO) and WCO SAFE Authorized Economic Operators (AEO) schemes are mutually reinforcing. This is neither an accident nor a unique situation. The WCO's Revised Kyoto Convention is the basis of many provisions of the WTO Trade Facilitation Agreement. In keeping with Article 13.1 of Section I of the TFA, the WCO's role and expertise for the implementation and administration of the TFA remains crucial. The WCO's Mercator Programmeme already plays a constructive role in assisting governments worldwide to implement the TFA. Both organizations consider the TFA as a great opportunity to modernize customs procedures, boosting international trade and strengthening the economic competitiveness of countries across the globe. The WCO Working Group on the WTO TFA, among other similar initiatives, should ensure a harmonized approach for implementing the TFA. There is no doubt that the continued collaboration of both organizations will greatly facilitate early and effective worldwide implementation of the TFA.

Industry Insight: Huawei benefits from WTO Agreements

In Huawei's experience, the WTO ITA has played a key role in the development of the global ICT sector and has become one of the key enablers of countries and their businesses to participate in global value chains. The implementation of ITA has helped the company reduce costs by more than $5 million over the past two years. AEO and other measures are streamlining trade (See Box 13). Huawei expects that, in the future, full implementation of the TFA will reduce customs clearance times by a further three days.

Long customs clearance times not only affect overall, on time, delivery, but also cause serious delays for inventory turnover management, increase costs and create difficulties in managing in-transit inventory.

Box 13 Huawei's Experience: Authorized Economic Operator (AEO) Programmemes

The company has benefited from AEO and similar programmemes in countries and regions around the world:

- Africa

Zambia and Zimbabwe Pre-shipment Declaration: In 2011, the time for import customs clearance was approximately 20 days. With the pre-shipment declaration, and one stop declaration, the clearance time has been reduced to within 3 days.

Uganda AEO: Import time shortened from 5 days to just 8 hours.

Tunisia AEO: Import time fell from 22.5 days to 1 day.

- Middle East

Oman AEO: After Huawei attained AEO status, its first import cleared customs within 2 hours. In the future it will only take less than 12 hours to complete the transit from its Dubai supply center to the central warehouse in Oman.

- Europe and Asia

Turkey AEO: Almost one million dollars ($700,000) in cost savings. Import times shortened from 5-7 days to 1-2 days.

Philippines Super Green Lane (SGL): Import time fell from 5-6 days to 1 working day.

- North America

Mexico AEO: Import time fell from 7 days to 5 hours. The fastest VAT refund is 8 hours.

- South America

Brazil AEO: More than $1 million cost savings. The physical inspection rate reduced to only 1%.

Source: Huawei 2018

To capitalize on policies to enhance international supply chain security and facilitate trade, Huawei has achieved AEO and related programme certification status in 19 countries/regions: China 5 AEO status, United States CTPAT, Malaysia AEO, Kenya AEO, Uganda AEO, Brazil AEO, Indonesia AEO, Thailand AEO, Mexico NEEC, Turkey AEO, South Africa Preferred Trader, Bolivia AEO, Guatemala AEO, Peru AEO, Hungary AEO, Oman AEO, Canada PIP, Tunisia AEO, Hong Kong 2 status, and Philippines Super Green Lane. Huawei has benefited from reductions in delays and costs on a global scale and there are several success stories for the company.


HUAWEI
Through Authorized Economic Operator (AEO) and trade facilitation measures, Huawei has experienced reduced delays and costs.
AFRICA
Zambia and Zimbabwe Pre-shipment Declaration: In 2011, Huawei waited ~20 days for customs clearance. With pre-shipment and one stop declaration, clearance time has been reduced to within 3 days.
ASIA & EUROPE
Philippines SGL: Import times fell from 5-6 days to 1 working day.
Turkey AEO: Almost $1 million in cost savings ($700,000 USD). Import time shortened from 5-7 days to 1-2 days.
MIDDLE EAST
Oman AEO: After Huawei attained AEO status its first import cleared customs within 2 hours. In the future, it will take less than 12 hours to complete the transit from its Dubai supply center to the central warehouse in Oman.
NORTH AMERICA
Mexico AEO: Import time fell from 7 days to 5 hours.
The fastest VAT refund is 8 hours.
SOUTH AMERICA
Brazil AEO: More than $1 million USD in cost savings.
The physical inspection rate reduced to only 1%.

REFERENCES

Bordner, T. (2014). Why you need trade compliance to maximize global supply chain profits. SDC Executive. Retrieved from: https://www.sdcexec.com/warehousing/article/11670007/why-you-need-trade-compliance-to-maximize-global-supply-chain-profits

Dedrick, J., Gurbaxani, V., & Kraemer, K. L. (2003). *Information Technology and Economic Performance: A Critical Review of the Empirical Evidence*. Irvine: University of California; Retrieved from http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.509.9982&rep=rep1&type=pdf

Estevadeordal, A. (2017). Why trade facilitation matters more than ever. The Brookings Institution. Retrieved from: https://www.brookings.edu/research/why-trade-facilitation-matters-now-more-than-ever/

Friedman, T.L. (2005). The world is flat.

Global Express Association (2018). Customs Capability Reports. Use of risk in customs efficiency. GEA. Retrieved from: https://global-express.org/index.php?id=4

Hoffmann, J. (2016). 7 reasons why the Bali TFA needs to happen. World Economic Forum. Retrieved from: https://www.weforum.org/agenda/2016/10/wto-bali-trade-facilitation-agreement/

International Trade Centre. (2017). *SME Competitiveness Outlook 2017 – The region: A door to global trade*. ITC.

Li, Y. & Wilson, J.S. (2009). Trade Facilitation and Expanding the Benefits of Trade: Evidence from Firm Level Data. World Bank. Retrieved from: http://siteresources.worldbank.org/INTTRADECOSTANDFACILITATION/Resources/1697815-1244565242897/6191411-1244585017483/Yue_Li_John_Wilson_background_paper.pdf

McLinden, G., Fanta, E., Widdowson, D., & Doyle, T. (2011). Border Management Modernization. World Bank. Retrieved from: https://openknowledge.worldbank.org/handle/10986/2544

Moise, E., & Le Bris, F. (2013). Trade Costs: What Have We Learned? A Synthesis Report. OECD. Retrieved from: http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=TAD/TC/WP(2013)3/FINAL&docLanguage=En
Organisation for Economic Co-operation and Development (2015). Implementation of WTO TFA: The potential impact on trade costs. OECD. Retrieved from: https://www.oecd.org/trade/WTO-TF-Implementation-Policy-Brief_EN_2015_06.pdf

Organisation for Economic Co-operation and Development (2015). Trade Policy Implications of Global Value Chains. OECD. Retrieved from: https://www.oecd.org/tad/trade-policy-implications-gvc.pdf

Organisation for Economic Co-operation and Development (2017). Making Trade Work for All. OECD. Retrieved from: http://www.oecd.org/tad/making-trade-work-for-all.pdf

Organisation for Economic Co-operation and Development (2018). Implementation of WTO TFA: The potential impact on trade costs. OECD. Retrieved from: http://www.oecd.org/tad/policynotes/oecd-tfi-implementation-impact-trade-costs.pdf

World Customs Organization (2018). Publically available information. WCO. Retrieved from: http://www.wcoomd.org/

World Trade Organization (2015). News item. WTO Members conclude landmark $1.3 trillion IT trade deal. WTO. Retrieved from: https://www.wto.org/english/news_e/news15_e/ita_16dec15_e.htm

World Trade Organization (2016). Trade costs and inclusive growth: Case studies presented by WTO chair-holders. WTO. Retrieved from: https://www.wto.org/english/res_e/booksp_e/trade-costs-incl-growth_full_e.pdf

World Trade Organization (2015). World Trade Report. Speeding up trade: benefits and challenges of implementing the WTO TFA. WTO. Retrieved from: https://www.wto.org/english/res_e/booksp_e/world_trade_report15_e.pdf

Printed by ITC Digital Printing Service on FSC paper, which is environmentally-friendly paper (without chlorine) using vegetable-based inks. The printed matter is recyclable.

A free pdf is available on ITC's website at:
www.intracen.org/publications

Street address
International Trade Centre
54-56 Rue de Montbrillant
1202 Geneva, Switzerland

P: +41 22 730 0111
F: +41 22 733 4439
E: itcreg@intracen.org
www.intracen.org

Postal address
International Trade Centre
Palais des Nations
1211 Geneva 10, Switzerland

The International Trade Centre (ITC) is the joint agency of the World Trade Organization and the United Nations.