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# WCO news

## Data Analysis for effective border management



World Customs Organization

# SOLUTION READY



## OFFERINGS

- ☒ TRADE FACILITATION SOLUTIONS
- ☒ ICT CONSULTING
- ☒ BUSINESS AUTOMATION
- ☒ PORTAL DEVELOPMENT
- ☒ KNOWLEDGE TRANSFER
- ☒ CAPACITY BUILDING & TRAINING
- ☒ MANAGED SERVICES

## SOLUTIONS



**Trade Hub**

*Trade Hub Information Portal*



**PAAR**

*Pre -Arrival Assessment Report*

**VIEW**

*Single Window Application Platform*

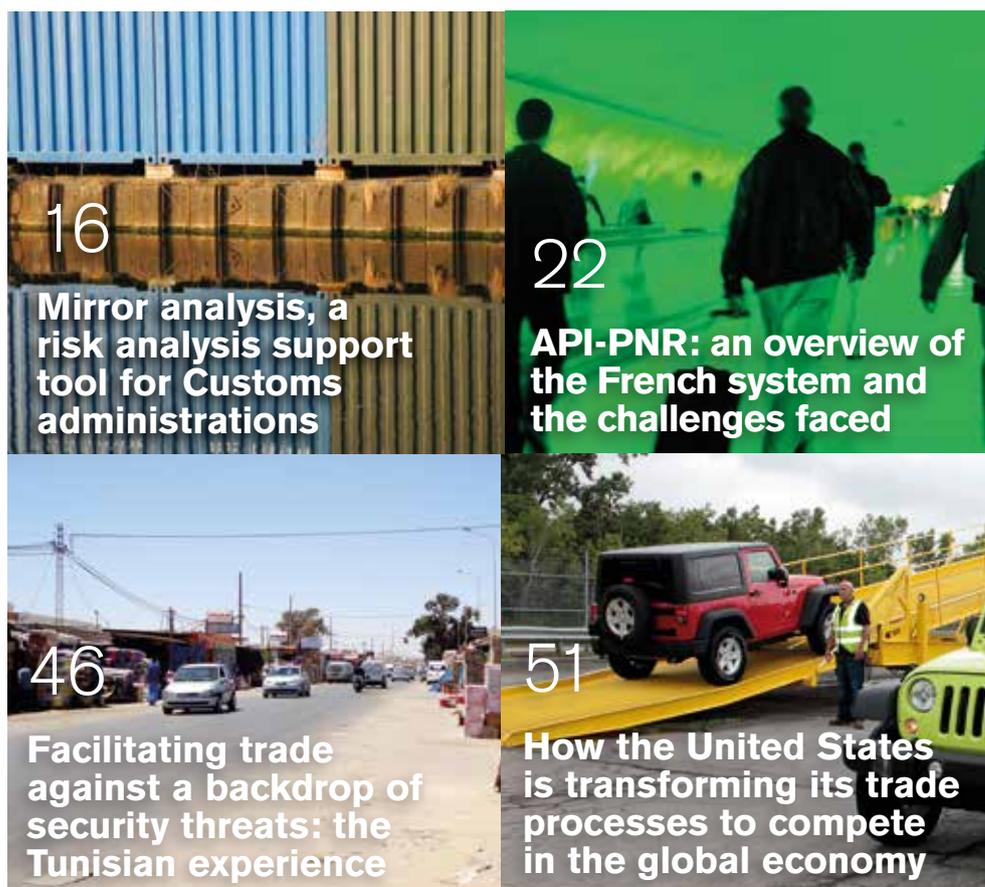


**NARP**

*National Automotive Repository Portal*

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# A new module in ASYCUDA speeds up the processing of relief consignments

By **Virginie BOHL**,

EMERGENCY RELIEF PROJECT MANAGER, THE UNITED NATIONS OFFICE FOR THE COORDINATION OF HUMANITARIAN AFFAIRS

IN MAJOR HUMANITARIAN crises, whether natural disasters or complex emergencies, many relief goods are delayed by Customs. Sometimes these items are only released months after their arrival, and, in the worst-case scenario, may never reach the affected population.

The reason for such delays is that Customs authorities are often not adequately prepared to process the large amount of relief items that usually arrive in a disaster stricken country within a very short period of time. The case of the Philippines after Typhoon Haiyan struck in November 2013 gives an idea of the volumes involved: the country's Bureau of Customs reported that the volume of cargo flights and ships was 10 times larger than under normal circumstances.

## ASYCUDA's new module

As a new initiative might help countries using the Automated System for Customs Data (ASYCUDA) to better handle the influx of relief items in an emergency, the United Nations Office for the Coordination of Humanitarian Affairs (OCHA) and the United Nations Conference on Trade and Development (UNCTAD) jointly explored how to upgrade the computerized Customs management system, developed 35 years ago by UNCTAD and used today in more than 95 countries, in order to facilitate the processing of international relief consignments in humanitarian emergencies.

The collaboration resulted in the development of an additional module for the software, called the Automated System for Relief Emergency Consignments (ASYREC). As its name suggests, it will automate the prioritization and rapid processing of



© USCBP

relief consignments in humanitarian emergencies.

Once activated, the module will enable the automated system to:

- register the organizations potentially involved in UN relief operations in advance, in preparation for potential unforeseen emergencies;
- record the duration of the state of emergency and the relief items listed by the government as priority needs, including their respective HS codes, and the requested volume;
- associate a list of pre-authorized organizations (UN, inter-governmental organizations (IGOs), non-governmental organizations (NGOs), etc.) with the emergency;
- authorize eligible aid agencies or donors with the possibility to lodge pre-simplified arrival declarations, and clearly indicate on their declaration that their shipment contains 'humanitarian relief';
- recognize these consignments, and prioritize their treatment by Customs and other government agencies.

Different types of humanitarian relief items such as goods imported for the benefit of disaster victims or temporary admission of disaster relief material can

be associated with the relevant Customs procedures prescribed by the national Customs law of the affected country (e.g. exemption from import duties and/or taxes), enabling completely automated processing and release of these goods by Customs authorities without delays.

The system will also enable Customs to get a more accurate overview of incoming relief consignments, and to share this valuable information with other national authorities and international actors such as the Global Logistics Cluster (the coordination mechanism responsible for coordination, information management, and, where necessary, the logistics service led by the United Nations World Food Programme (WFP) provision to ensure that an effective and efficient logistics response takes place in humanitarian emergency missions).

## Rolling out the new system

The software prototype has been tested, and will be integrated into ASYCUDA systems around the world progressively. Procedures and guidelines will be developed and tested in simulation exercises to ensure that national authorities and shipping agencies are comfortable with the system, and are ready to use the module.

## More information

[bohl@un.org](mailto:bohl@un.org)

## New global HS standard enters into force

THE NEW EDITION of the WCO Harmonized System (HS) Nomenclature entered into force on 1 January 2017. The changes in HS 2017 encompass 242 sets of amendments relating to a wide range of products and product groups, including:

- fish and fishery products;
- forestry products;
- antimalarial products;
- substances controlled under the Chemical Weapons Convention;
- hazardous chemicals controlled under the Rotterdam Convention;
- persistent organic pollutants controlled under the Stockholm Convention;
- ceramic tiles;
- light-emitting diode lamps;
- monopods, bipods, and tripods;
- hybrid, plug-in hybrid, and all-electric vehicles.

The several tools available to WCO Members and to the public to assist with the classification of commodities in the HS Nomenclature have been updated, and are available for purchase via the WCO Bookshop:

- The Explanatory Notes which constitute the official interpretation of the HS at the international level;
- The Compendium of Classification Opinions which includes a list of the most significant/difficult classification decisions taken by the WCO HS Committee;
- The Alphabetical Index which facilitates the location of references in the HS Nomenclature or in the Explanatory Notes to any of the products or articles mentioned therein;
- The online HS Database which includes all HS publications.

Information about progress on the implementation of HS 2017 and the acceptance of various HS-related recommendations relating to each of the Contracting Parties is published on the WCO website in the form of a matrix.

### More information

[hs@wcoomd.org](mailto:hs@wcoomd.org)

<http://wcoomdpublications.org>

## Latest accessions to WCO instruments

### Revised Kyoto Convention



Samoa

Date of accession: 27 October 2016  
105<sup>th</sup> Contracting Party



Benin

Date of accession: 5 January 2017  
106<sup>th</sup> Contracting Party



Nepal

Date of accession: 3 February 2017  
107<sup>th</sup> Contracting Party

### Harmonized System Convention



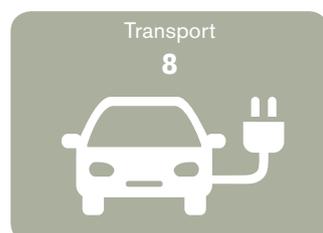
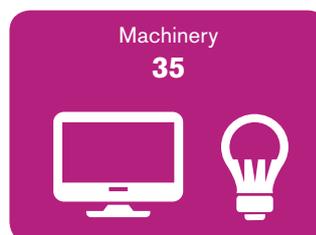
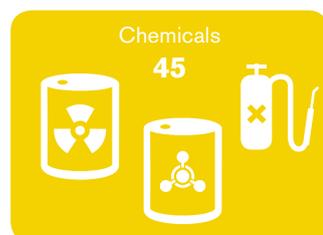
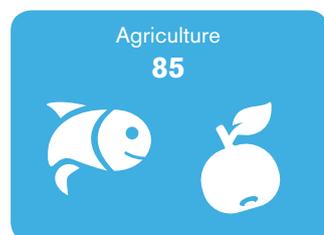
Burundi

Date of accession: 18 January 2017  
155<sup>th</sup> Contracting Party

### More information

[communication@wcoomd.org](mailto:communication@wcoomd.org)

## HS 2017: 242 sets of amendments



# Data Analysis

# Data analysis: seizing opportunities for effective border management

**By Dr Kunio Mikuriya,**  
SECRETARY GENERAL, WORLD CUSTOMS  
ORGANIZATION

DATA IS GENERATED by every economic activity, including by the movement of goods and people. In fact, the convergence of several technologies is accelerating the generation of data. According to experts, the volume of data continues to double every three years as information pours in from digital platforms, wireless sensors, virtual-reality applications, and billions of mobile phones. In addition, data storage capacity has increased, while its cost has plummeted. Data scientists now have unprecedented computing power at their disposal, and they are devising algorithms that are ever more sophisticated.

Data analysis is not new, companies and governments have been leveraging data analysis in their businesses for years to drive priority-setting, decision-making, performance measurement, budget planning and forecasting, and operations. Customs already has a substantial amount of data at its disposal, beginning with data submitted for the Customs clearance process. Moreover, thanks to the development of digital technology, Customs can tap into data from other government agencies, commercially available databases, and open source information platforms, such as digitized global public records and multilingual news sources.

Taking this context into account, I am convinced that, building on last year's theme "Digital Customs – Progressive Engagement," it is imperative that we continue to enhance our data analysis practices. For this reason, I chose "Data Analysis for Effective Border Management" as the WCO's annual theme for 2017, which was launched on the occasion of International Customs Day (ICD) on 26 January.

A snapshot of the activities undertaken by Customs officers who were awarded on the occasion of ICD for their commitment to the data analysis theme reveals the diversity and complexity of the data analysis work being undertaken by Customs administrations. These officers have:

- used analysis to better detect cigarette smuggling attempts;
- undertaken a study on how to enhance the security deposits on mineral oils which are temporarily imported;
- enhanced post-clearance audits by determining criteria and setting up profiles to control the movement of cargo;
- exploited historical enforcement-related data to predict the behaviour of traders and passengers;
- developed tools that directly support data analysis activities, such as databases or systems which enable Customs-to-Customs exchange of information;
- engaged with other related government agencies to support data exchange;
- implemented the WCO Time Release Study (WCO TRS) for measuring the time necessary for the clearance and release of goods;
- assessed passenger risk, and assisted in the targeting and identification of high risk cargo.

It is important to recognize the critical value of the work of these officers, and the benefits that can be brought to our community through the sharing of knowledge on the use of data analysis methods and technologies. On this last point, I should like to highlight the importance that modern analysis

More and more Customs administrations have turned to data mining and predictive analytics, i.e. the pursuit of extracting meaning from raw data using specialized computer systems, or even cognitive technologies which use advanced algorithms to analyse unstructured data. Data, used in conjunction with analytics and other emerging technologies, will, I am quite sure, provide us with new opportunities to realize our objectives.

tools are playing today. In recent years, we have witnessed the emergence of a whole gamut of new tools, providing new opportunities to get the most value from available information.

More and more Customs administrations have, for example, turned to data mining and predictive analytics, i.e. the pursuit of extracting meaning from raw data using specialized computer systems, or even cognitive technologies which use advanced algorithms to analyse unstructured data. Data, used in conjunction with analytics and other emerging technologies, will, I am quite sure, provide us with new opportunities to realize our objectives.

#### Key requirements

A critical foundation of a successful cognitive organization concerned with data analytics is the digitization of data. If data cannot be consumed by a cognitive system, it cannot be analysed effectively. So, digitizing information and processes and moving data to the cloud or any other easily accessible platform are some of the prerequisites for attaining success in the use of data analytics.

Data analytics should be able to access various databases (for example, seizure databases, databases of traders, valuation databases, etc.) to discover hidden information and patterns. In other words, automation of the extraction and analysis of Customs data, including external data, is also of critical importance. One of the benefits of Customs-tax and Customs-police cooperation that the WCO promotes is to enlarge Customs' access to different

databases. The WCO Information and Intelligence Centre (I2C) is another endeavour to show the use of open data, while supporting intelligence-gathering.

Customs administrations should make data analysis a strategic priority, making use of cutting-edge technology, establishing appropriate automation policies, recruiting experts to collect and analyse data, and acting upon the data-driven insights. Customs staff also need to progressively develop the appropriate skills to exploit the potential of data analysis and information technology (IT) tools.

Needless to say, to optimize the use of data analytics it is important to obtain quality data in a timely manner. This is one of the key areas for partnerships with business to ensure the timely flow of precise information. Moreover, there is a need for border agencies to harmonize the data being shared (using the WCO Data Model) and to develop skills pursuant to any IT challenges. Further, Customs administrations need to ensure that privacy and confidentiality laws are respected, so as to uphold the confidence of society while accessing and using such data.

#### Methods and tools

Data analysis, its key requirements and related challenges will be thoroughly discussed within the WCO during 2017, and will appear on the programmes of all major WCO events, such as the Information Technology Conference and Exhibition, the Global Conference on Transit, and the Technology and Innovation Forum. Even the WCO Knowledge Academy for Customs

and Trade and the research-focused PICARD Conference will spend some time looking at this issue.

But, it is not only the WCO which will be focusing its attention on data analysis during 2017. I have been informed that some regional Customs organizations will also be organizing events around the data analysis theme, such as the Oceania Customs Organisation which intends to hold its event in May. I can only encourage initiative, while exhorting others to do the same. In addition, throughout the year, the WCO will use every opportunity to enhance the promotion of its tools that can contribute to taking the data analysis theme forward, such as:

- the WCO Customs Enforcement Network (CEN), which is a global Customs seizure database;
- the WCO TRS, which is a methodology for measuring border agency clearance times;
- the use of mirror analysis, which involves using the Harmonized System (HS) Code to compare the imports (or exports) of a country with the exports (or imports) reported to it by its trading partners, as a means of detecting gaps in terms of quantity, weight or value that may reveal fraudulent flows or practices;
- the application of performance measurement to improve Customs procedures and integrity, including the use of the techniques presented in the WCO Performance Measurement Contracts Guide;



- the WCO Data Model, which supports data analysis by improving data collection and by enabling the sharing of data between government agencies.

### Monitoring trends and practices

Part of our work in the months ahead will also be to showcase data analysis related projects to inspire others, and to monitor and communicate best practices in this domain. I therefore invite all WCO Members to share how they are leveraging the potential of data to advance and achieve their objectives, and respond to the expectations of their traders, transport and logistics operators, as well as their governments. Some have already shared information with us in the pages of this magazine:

- Canada Border Services Agency explains how it is reorganizing itself around the data it collects, making data a strategic pillar to build around;
- New Zealand Customs Service briefs us on the development of its Single Window, which will enable it to obtain richer and better quality data,

as well as the analysis tools it is using, including future developments in this field;

- Côte d'Ivoire Customs sheds light on how it is using mirror analysis to support risk analysis;
- Singapore Customs gives us an overview of its data analysis policy in terms of technologies used and staff competencies required;
- French Customs tells us about the data analysis that it applies to the movement of airline passengers and crew, and to the implementation of its Advance Passenger Information/ Passenger Name Record (API/ PNR) programme, including related challenges.

Last but not least, the magazine also includes an article from a Professional Associate working temporarily at the WCO Secretariat, who describes how the WCO capacity building programme enabled her to develop her data analyst skills, and an article from a technology

provider which introduces cognitive computing and explains how it can help in improving trade compliance and facilitation.

### Conclusion

Given its growing importance, the data analysis theme will be further explored during meetings of our committees and working groups during the year, and the WCO will make every effort to use all its different communication tools to disseminate the knowledge gained and practices shared on these occasions.

In wrapping up, I would like to sincerely thank all the contributors to this dossier on data analysis, including all the other magazine contributors who share their experiences on various Customs-related issues with us. Your contributions help us to ensure that the WCO continues to be the centre of Customs expertise, and a central point for sharing knowledge, information and research.

# Data analysis for effective border management: the Canadian experience

By Charles Slowey,

DIRECTOR GENERAL, GLOBAL BORDER MANAGEMENT AND DATA ANALYTICS,  
CANADA BORDER SERVICES AGENCY

EFFECTIVE BORDER MANAGEMENT requires the identification of people and goods, and the collection and analysis of relevant information at the earliest possible point in the travel and trade continuum. The “business” of modern border management organizations has evolved, and is now driven by the active use of advanced data.

Customs organizations collect and hold vast amounts of data on travellers and goods. As a result, we must embrace an organizational culture that is equally driven by sound principles of information management so that we may truly take advantage of the large amounts of data in our care. By adopting progressive approaches, such as data analytics, to collect and successfully exploit data to drive decision-making, we can strengthen our capacity to protect our citizenry, improve border services, and generate revenue for our governments.

Turning our “raw data” into information enables evidence-based decision-making, and allows border management organizations to invest resources in a way that supports high priority services. In the case of Customs organizations, this can include advanced risk assessment techniques, better resource utilization, and more complete reporting on overall performance to the public.

In order to take advantage of the information under its stewardship, the Canada Border Services Agency (CBSA) has developed a strategy for data analytics, including establishing a centralized governance structure, to drive investments in three key areas: data governance; business intelligence; and advanced analytics. The framework is designed to allow the Agency to derive increased value from its data. At the core of this strategy is the recognition that the CBSA respects the privacy and security

of the data in its care, and that the data enables effective border management.

## What is data analytics?

The term “data analytics” refers to the use of information technology to harness statistics, algorithms, and other tools of mathematics to improve decision-making. It includes traditional analytics that is often referred to as business intelligence (e.g. “what happened?”) and predictive analytics (e.g. “what will or could happen?”). The CBSA recognized that it could not fulfil its core mandate without data to drive our priority-setting, decision-making, performance measurement, budget planning, and operations. Key to this was a shift in culture.

Our traditional methods saw us accepting information through “stove pipes” that were in turn analysed in siloes aligned to our various business lines. However, as today’s world is increasingly interconnected, it became clear that we needed to link our diverse data sets and take an enterprise approach to information management. By connecting our data holdings, we could position ourselves to better contribute to global security, and facilitate the free flow of persons and goods. An internal culture shift is underway at the CBSA to see data as a corporate resource that can be used across all of the Agency’s business lines.

## Toward a data-driven decision-making process

By recognizing that we are a “data-rich” organization, with significant data systems, the CBSA’s Data Analytics Strategy became the guiding framework to increase the value of these data holdings. Our strategy focuses on three pillars.

The first pillar, Data Governance, includes establishing a Data Governance Centre, launching data stewardship, and implementing an enterprise business

data model with data sets consistent with the WCO Data Model standards. To date, the CBSA has improved data policy coherence and strategic direction through improved communication among all branches of the CBSA. We have focused our dialogue to ensure that we are discussing data integrity, data management, and how best to automate manual data entry tools. In short, we have brought the right people together to ensure that we are having conversations on how to use data the “right way.”

The second pillar, Business Intelligence, involves building an integrated data warehouse that draws on key data from multiple sources, including operational systems, as well as financial and human resources data. Early on, the Agency was able to complete high-level business requirements for an integrated overview of the CBSA’s operational, financial and human resources data. We also developed a visualization pilot to improve situational awareness of what data was available. Going forward, we hope to use data to effectively inform decision-making on where to deploy





# Border management modernization in New Zealand forges ahead

**By Murray Young,**

CHIEF INFORMATION OFFICER, NEW ZEALAND CUSTOMS SERVICE

The New Zealand Customs Service is getting closer to completing a major modernization project, called the Joint Border Management System. The system has two key components: the development and implementation of the New Zealand Trade Single Window; and advanced risk and intelligence capability, including new tools to provide sophisticated data mining, risk rating, and pattern analysis.

IN FEBRUARY 2015, the New Zealand Customs Service (NZCS) updated WCO News readers on the progress of the (NZD) \$104.1 million Joint Border Management System (JBMS) project, which it is undertaking in partnership with New Zealand's Ministry for Primary Industries (MPI) – responsible for managing the biosecurity risks posed by cargo, craft, passengers and mail items, including risks associated with imported food.

At the time of the update, a significant proportion of the Trade Single Window (TSW) initiative had been delivered for

food safety, biosecurity and Customs purposes.

I can tell you good progress has been made since 2015, with three areas of the JBMS project completed or substantially completed.

## Allowing industry the freedom to manage certain information

In July 2015, further functionality to the TSW was added, to allow brokers to register and manage some of their own and their clients' information, and for supplier codes to be issued through the TSW. Before this addition, NZCS issued

client codes to importers, exporters and overseas suppliers, and to organizations or individuals who wanted to submit messages to the system. These were applied for on forms that were generally faxed or emailed to NZCS for data entry.

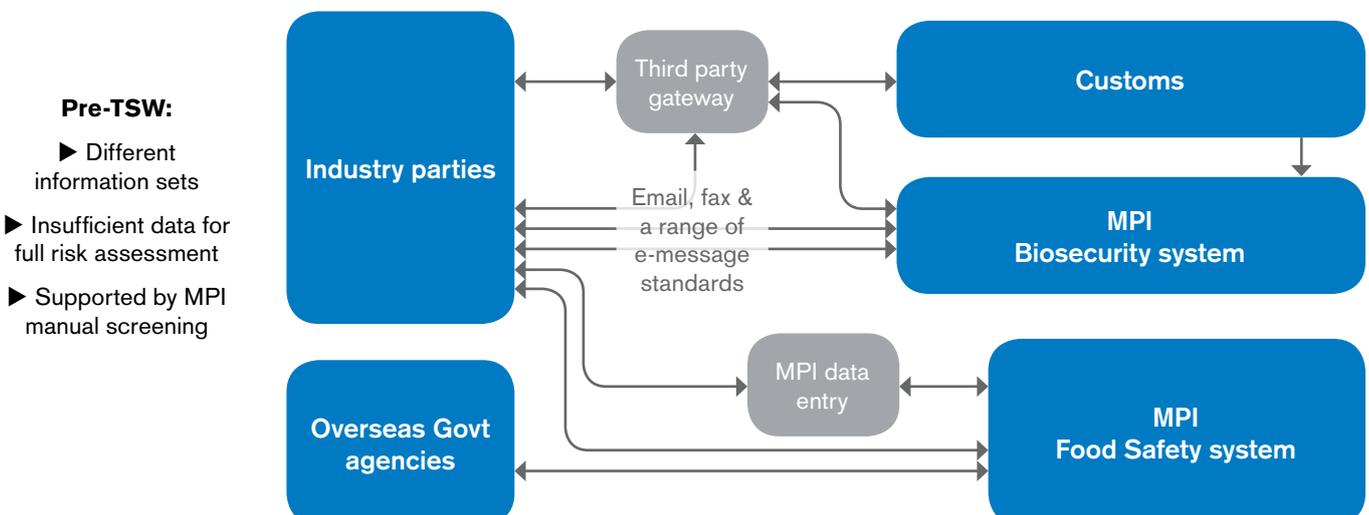
Allowing supplier codes to be issued online has been hugely beneficial for traders using the TSW. It has reduced what previously took up to one business day to issue, down to a matter of minutes. We no longer hear 'stories' of someone trying to get a supplier code late on a Friday, but having to wait until Monday for it to be sorted out. Letting industry get on with their business, and allowing it the freedom to manage certain information in the TSW has been hugely popular and efficient.

The 'flip side' for Customs is what was previously a manual process is now largely dealt with through the TSW, allowing officers to focus on more high value work, and for future costs associated with manual processing to be avoided.

## R&I analytics toolset and data repository upgraded

A further milestone was reached in November 2015, when a significant upgrade to our offline risk and

### Prior to the Trade Single Window, meeting border requirements for goods and craft involved dealing with multiple agencies and a third party to process transactions



intelligence (R&I) analytics toolset and data repository to support its use was deployed. This technology has enabled a joint border analytics team to be established (November 2016), which consists of Customs and two fellow border agencies, Immigration New Zealand and the MPI respectively.

Establishing a joint team allows the agencies to share the cost of specialist resources and leverage the R&I capability and tools of the three agencies, to gain new insights into border risk through the use of analytics and data sharing.

Literally millions of border transactions are now being interrogated to identify patterns in data that represent border risk. A good proportion of that data is being generated through the TSW, which uses electronic craft and cargo reporting, and clearance messages based on Version 3.2 of the WCO Data Model (WDM3).

The available data will grow with the completion of the last major release of the TSW in early 2017, which will include new 'lodgement' types, the term used to describe the different sets of information required (see diagram). The quality of data will increase even further once the use of WDM3 message sets by traders to submit information becomes mandatory.

Initially, NZCS has decided to target methamphetamine smugglers. For

this, we have built a predictive model, in consultation with Australia's Department of Immigration and Border Protection, centred on air cargo data. While early results are promising, time and more data is needed to prove it. As our capability and capacity grows, further predictive models will be developed, including models for revenue risk and other drugs.

More investment in the area of data analytics is certainly required to build from our current state, but it is the tools, and understanding from the JBMS project, that have given us a good head start.

#### Coordinated border management and R&I tools

Another example of the push in New Zealand for better coordinated border management (CBM) is that it should be driven by intelligence-led risk management. This intelligence-led approach underpins what NZCS and its fellow border agencies do in an ever-changing border environment. But, the collaboration is not just limited to gathering intelligence, as in many locations, New Zealand's border agencies have co-located staff, and are sharing resources more than ever.

The new way of working is not just confined to the New Zealand border. Closer ties have been established with many Customs administrations around the world, including Australia, Canada,

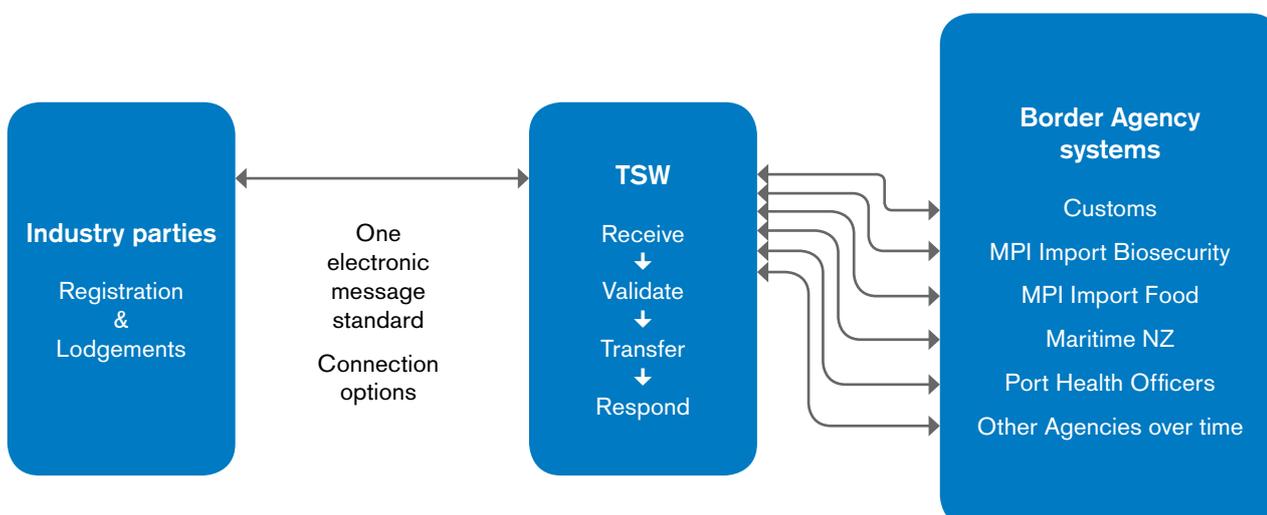
Hong Kong, China, and the United States. Collaboration with such agencies to stop illicit drugs and other contraband pre-border has been paying dividends, with many notable methamphetamine seizures in particular. A big part of the success has come from information sharing, and NZCS staff being on the ground in other countries to assist with operations and intelligence gathering.

This better CBM approach is also at the forefront of how remaining real time R&I tools, to be delivered as part of the JBMS project, will be implemented. While progress on implementation of these tools was slowed to focus on completing the TSW, it has allowed us to re-think some design aspects, and implementation in general. For example, the tools will now be available to all New Zealand's border agencies to use, and they have also been designed for the mobility platform used by frontline staff.

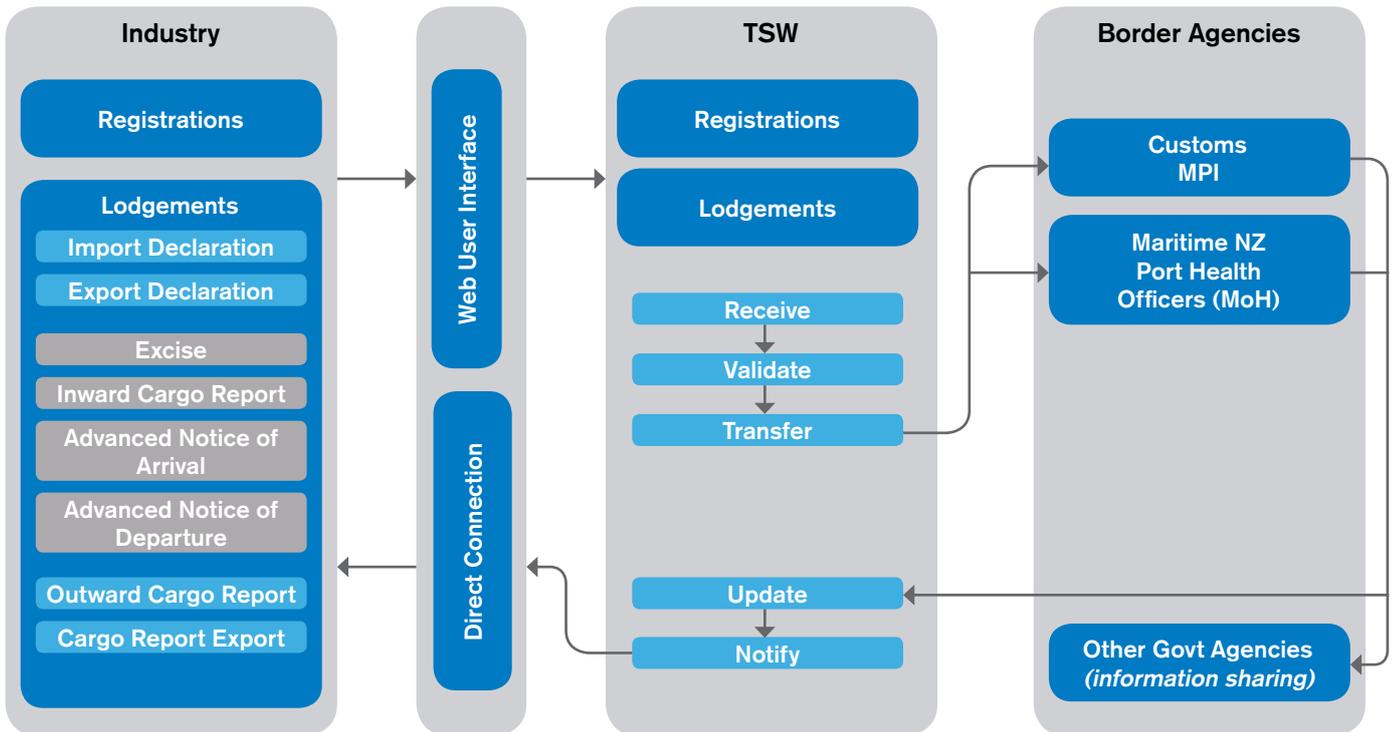
It is now our expectation that these tools will be deployed over two years, as a series of smaller projects once the completed TSW has gone live. What will be delivered includes:

- a new alert engine for risk assessment;
- a mitigation/workflow engine;
- an entity management tool;
- an addressing system;
- a federated search tool to search unstructured data;
- a geospatial information system.

### The Trade Single Window has streamlined border clearance



## The completed Trade Single Window



I am confident that these real time tools will add huge value, and lead to positive outcomes and interventions at the border.

**Single Window component prioritized**  
Our TSW has been prioritized. A key reason behind this decision is that, if we want to maximize our R&I tools that are still to be implemented, we need two years of rich TSW data, based on the WDM3. We felt that it was important to get the information flowing first, so that the tools could do their job once they had been implemented. NZCS believes the richer WDM3 data will provide us with much better insight into border risk, and lead to more targeted interventions.

In terms of the TSW, right now we are making final preparations to launch the completed system (for goods and craft) in just a matter of weeks. As denoted in the illustrative diagram, the completed TSW features four new lodgements. It also has increased functionality across the system.

**The remaining TSW functionality will deliver the following:**

- The Inward Cargo Report (the most complex message set) that includes the ability to electronically request approval to move consignments out of

a port or airline store, if they have not been cleared already;

- Electronic messages for industry to report ship arrivals and departures. As a result, New Zealand Ministry of Health officers will be able to access the TSW to provide instructions to ships about approvals to berth, and Maritime New Zealand will also get fuller electronic data to manage its safety and billing functions;
- Industry will be able to submit excise lodgements directly into the TSW for the first time, with minimal Customs interaction. This will improve the efficiency of the excise declaration process;
- Extending the 'trader self-service' capability introduced in March 2015, which allows brokers and traders to manage how their staff use the system;
- Providing officers with full access to transactions in the TSW, so that they can help traders with any issues that they might have with their messages.

### More information

[www.customs.govt.nz/features/jointbordermanagement/Pages/default.aspx](http://www.customs.govt.nz/features/jointbordermanagement/Pages/default.aspx)

Robert Lake, Counsellor, New Zealand Embassy in Belgium: [robert.lake@customs.govt.nz](mailto:robert.lake@customs.govt.nz)

In keeping with the approach taken prior to the release of any functionality in the JBMS project, NZCS has worked very closely with industry during the various phases. We have done rigorous testing with a select group of traders to ensure it works well for them, and to flush out any unexpected issues ahead of our 'go-live.' After the completed system is in place, we will then consult with industry on mandatory dates for all traders to adopt the WDM3 message sets.

So, it is a busy time for us here at NZCS, as we prepare to mark another milestone with the completion of our TSW. It has not been easy at times, but it is definitely worth it. And, given that border modernization never really ends, I am excited to see where the next major developments in border management will take us.

For more information on New Zealand's TSW, please have a look at a presentation we prepared for New Zealand Parliament representatives in December 2016: <https://vimeo.com/195691917>.



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## Mirror analysis, a risk analysis support tool for Customs administrations

**By Roger-Claver Victorien Gnogoue,**

FINANCIAL SERVICES DIRECTOR, CÔTE D'IVOIRE CUSTOMS

TWENTY-FIRST CENTURY CHALLENGES place demands upon Customs administrations throughout the world, particularly in developing countries. Customs services must, therefore, be effective and efficient if they are to meet their revenue and trade facilitation targets, the achievement of which requires substantial investment in reforms, modernization, and continued improvement.

Côte d'Ivoire Customs is aware of these challenges, and has introduced a range of reforms to ensure its thorough modernization. It is now an exemplary, up-to-date and high-performing service. The modernization programme driven by its development partners – the

World Bank (WB) and the International Monetary Fund (IMF) – is founded on six projects.

Its enforcement and anti-smuggling initiative forms part of the reform process under Project 4. To reduce supply chain risks in matters of security and non-compliance with prevailing laws and regulations, Côte d'Ivoire Customs has put a series of modern working methods and techniques in place to improve and develop its risk management, and inspection, investigation and enforcement capabilities. It has, in particular, established a control and selectivity system based on risk analysis, and has introduced a simplified report procedure which computerizes declaration control reports, thus creating a database of Customs offences.

### Risk analysis

Customs action has had to be rationalized in response to increased volumes of trade in recent years. Pre-clearance audits, which verify the nature and value of goods before importers or their representatives take possession of them, have had to be appropriately combined with post clearance audits (PCAs), which are carried out after goods are released or cleared at the border, the aim being to control less but better.

Pre-clearance audit, carried out by frontline services, involves a selection of operations with a potentially high risk of fraud. Côte d'Ivoire Customs, with technical assistance from the IMF Regional Technical Assistance Centre in West Africa (AFRITAC), has introduced a risk analysis-based

control and selectivity system to ensure this process. The system's performance over the previous 12 months was assessed in late 2015: 20% of transactions covering around 70% of recognized fraud findings were audited. Historically, less than 10% of declarations audited led to a finding of fraud.

PCAs, carried out by second-line services, are designed to ensure that completed Customs operations have been properly conducted. This involves an in-depth analysis, both of declarations and of the attached import documents, and may cover the three financial years preceding the audit. While sectors of activity and operators to be audited may be selected on the basis of a risk analysis, new methods are increasingly recommended by the WCO, including mirror analysis.

By definition, mirror analysis is a decision support tool designed to study differences in a country's foreign trade. To that end, it analyses both import and export statistics. This technique is used to develop the capacity of Customs administrations to identify possible irregularities, such as under-valuations, incorrect classifications (tariff slippage), false declarations of origin, etc. In other words, the magnitude of the differences may point Customs administrations to fraudulent flows most commonly used over a period of time.

### Some results of mirror analyses and their interpretation

Mirror analysis has been used in Côte d'Ivoire to study 2014 data, the most recent complete data available in the United Nations Commodity Trade Statistics Database (UN COMTRADE). This exercise highlighted significant disparities between data taken from our SYDAM WORLD computerized Customs clearance system and data stored in the UN database. These differences involve several products, and are more substantial for Asian countries. Our attention was drawn to two particular cases. Because of their sensitive nature, information regarding Harmonized System (HS) headings or the source countries of the products involved will not be disclosed.

The pursuit of data quality is essential for a mirror analysis.

Customs administrations must ensure this quality by collecting data from various sources, particularly foreign Customs administrations, port authorities, exporting countries, and businesses.

The first case concerns a product that will be identified as tariff subheading "X1," which is mainly imported from an Asian country. The 2014 import value declared for this subheading in the SYDAM is 127.24 billion CFA francs, compared to a mirror value of 211.3 billion CFA francs, i.e. a negative difference of 84.10 billion CFA francs. In addition, the prices declared at the Customs barrier are well below international prices (209 CFA francs/kg). Two particular operators declare prices, which are significantly atypical compared to average imports of the same product.

The second concerns product "X2". While one country may have declared exports of this product to Côte d'Ivoire, the 2014 national Customs statistics show a weak flow of such goods that year. This product attracted a tariff of 20%. By contrast, a product in another subheading taxed at a lower rate, i.e. 10%, which will be referred to as "Y2," accounted for a considerably greater number of declarations over the same period. In this particular case, this could represent a tariff slippage, leading to the avoidance of a proportion of the Customs duties.

The challenge is all the more significant because the introduction in 2015 of the common external tariff of the Economic Community of West African States (ECOWAS) brought about a 35% increase in the Customs duties on product X2, which could lead to greater revenue losses if corrective measures are not put in place.

### Using the results of a mirror analysis

The findings of any mirror analysis lead to assumptions of fraud which must then be verified by investigations in the field or, failing that, in-depth document reviews. They point Customs administrations towards possible fraud, and make it possible to avoid sometimes cumbersome and costly investigations that may prove inconclusive and fruitless.

Côte d'Ivoire Customs issued 2,420 fraud reports in 2015. The offences most commonly recorded by frontline services are false values, false goods and false weight declarations, which alone account for 83.68% of total offences. The principal offences identified by second-line services are false value declarations (29.83%), undeclared imports (17.23%), and false goods declarations (7.32%).

The results of controls are recorded in the simplified report, allowing operations to be audited and control officers to be assessed. To ensure that Customs controls are increasingly effective, the statistical services that conduct mirror analyses must also cultivate close relations with Customs control services, and targeted products and origins must be regularly monitored during Customs clearance operations or PCAs.

In addition, the results of mirror analyses allow Customs statistics to be corrected. Statistical asymmetries are a very serious issue since they affect the reliability of the trade balance, the balance of payments, and national accounts. Data reconciliation is necessary to improve the quality of the foreign trade statistics that Customs administrations are responsible for compiling in many countries.

### Data quality and mirror analysis in perspective

The pursuit of data quality is essential for a mirror analysis. Customs administrations must ensure this quality by collecting data from various sources, particularly foreign Customs administrations, port authorities, exporting countries, and businesses.

Many data accuracy problems have been highlighted repeatedly during mirror

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analyses. These may be goods classification errors by the country of origin, time lags between export and import declarations, the “misallocation” of imports to a third country, or exchange rate volatility. These problems can be resolved largely through Customs cooperation.

The WCO has drafted a model agreement on bilateral administrative assistance in traditional areas such as valuation, classification, and origin of goods, thus facilitating Customs cooperation which is essential to any mirror analysis. In response to the differences identified by these analyses, a Customs administration must organize meetings with the administrations of the countries concerned in order to reconcile its data. This will allow goods to be monitored and traced from their place of production to the country of final destination.

It should be noted here that, under the Trade Support and Regional Integration Programme (PACIR), the European Union (EU) undertook to foster regional integration in the West African Economic and Monetary Union (WAEMU) by interconnecting Customs computer systems. This project includes a data exchange protocol enabling goods transit operations to be managed more effectively.

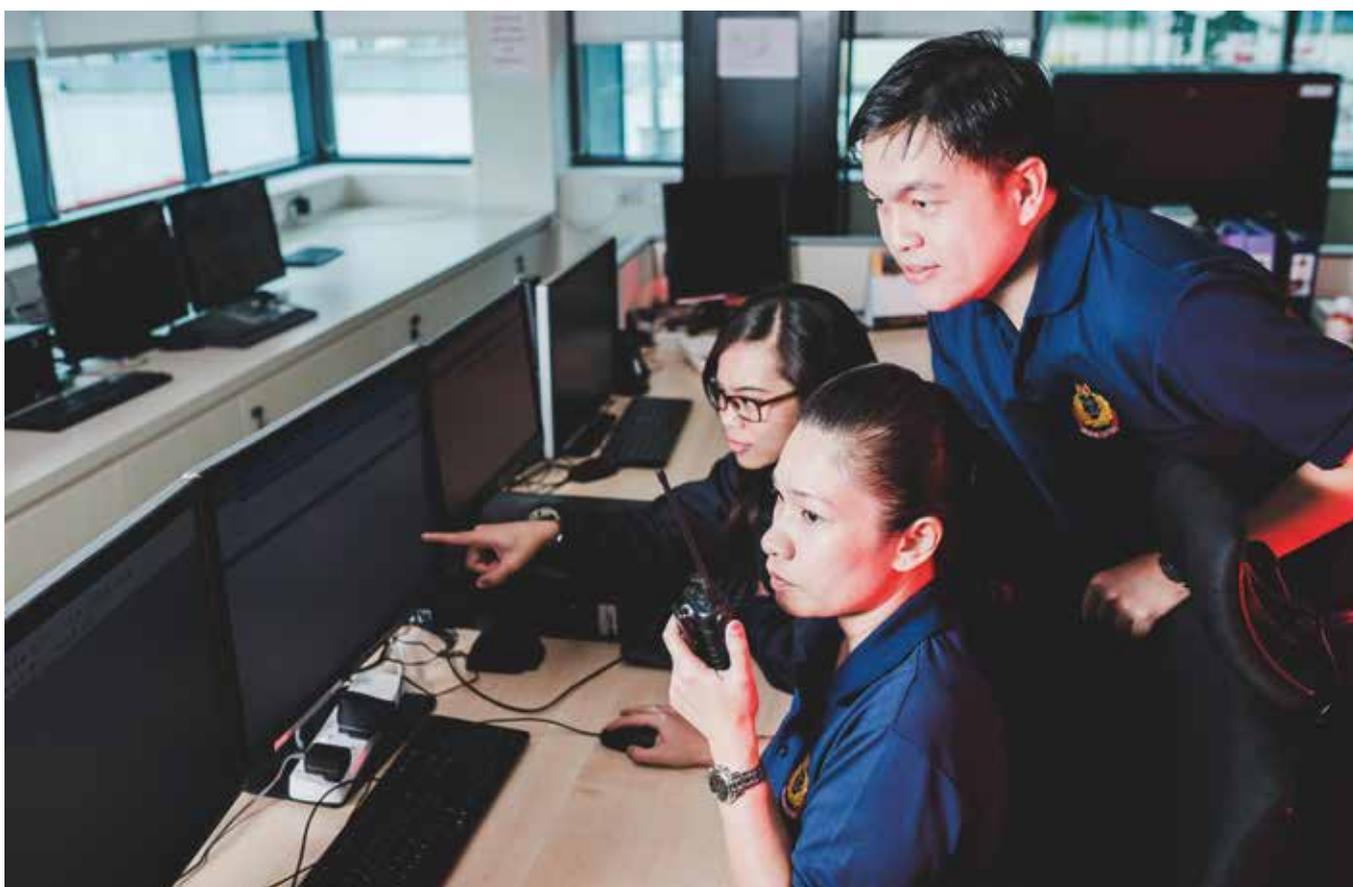
It is also essential to ensure close cooperation between Customs administrations and businesses, in particular to initiate a dialogue on data reliability. The implementation of an authorized economic operator (AEO) programme may be beneficial in this respect. In Côte d’Ivoire, a public-private partnership between Côte d’Ivoire Customs and the private sector was developed through the Observatoire pour la Célérité des Opérations de Dédouanement (OCOD)\*, a body set up to streamline Customs clearance processes.

This cooperation, which has already produced useful results (particularly two studies of Customs release times, trade facilitation measures and appeals against Customs decisions), could represent a starting point for greater dialogue on data quality with certain trusted traders. In addition, the WCO’s decision to dedicate 2017 to data analysis under the slogan “Data Analysis for Effective Border Management” is another opportunity to promote dialogue on the quality and use of Customs data.

*\*Observatory for the Speed of Customs Clearance Operations*

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## Data analysis in risk management: Singapore Customs' perspective

### By Singapore Customs

AS A PARTNER of business and a guardian of trade, Singapore Customs strives to strike a fine balance between making sure sufficient controls are in place to interdict illicit trade, and ensuring that legitimate trade continues to flow unhindered. This requires Singapore Customs to be adept at data analysis, which strengthens enforcement and boosts compliance by the trading community.

Accurate profiling and targeting enhance the effectiveness of Singapore Customs' compliance checks. This also sends a clear message to would-be smugglers that despite the huge volume of goods crossing the country's borders, Singapore Customs remains highly capable in detecting illegitimate or fraudulent transactions.

### Data collection

Data collection is the first step in the data analysis process. Singapore Customs obtains data from multiple data sources. Such sources of data include information from Customs declarations, other domestic agencies, commercially available databases, and open source information platforms. Information is also obtained from intelligence sources, of local origin and via international collaborative efforts such as feeds from the WCO Regional Intelligence Liaison Office (RILO).

The collected data, which may be in a structured or unstructured form, may not be fed into the same risk engine. Some of the data that has been collected is used to substantiate an analysis. It is also important to ascertain the reliability and validity of collected data, which Singapore Customs does through various means, including verifying the

data against the relevant supporting trade documents received.

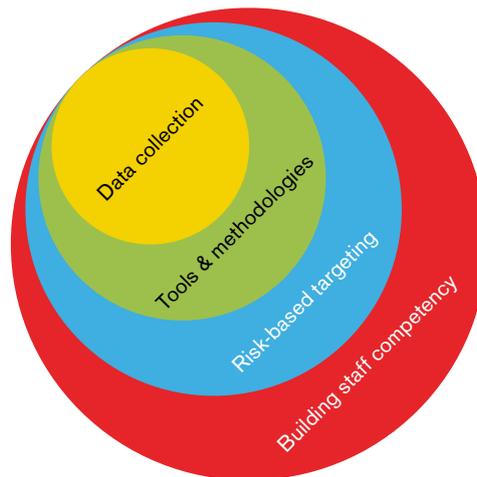
Along with analysing historical data, Singapore Customs 'scans the environment' to identify evolving trends and patterns, assesses their impact, and responds to threats and opportunities posed by them.

### Tools and methodologies

With the advancements in data analytics, i.e. the pursuit of extracting meaning from raw data using specialized computer systems, Singapore Customs has endeavoured to strengthen its data analytics capabilities by progressing from descriptive analytics to the use of predictive analytics.

Descriptive analytics uses data aggregation and data mining to provide insight into the past and answers the question: "What has happened?"

## Data analysis



Predictive analytics, on the other hand, uses statistical models and forecast techniques to understand the future and answers the question: “What could happen?”

To make sense of the data that it collects, Singapore Customs leverages its data warehouse where voluminous collected data is stored, such as shipment clearance times and declaration-related information. Using data extraction tools, officers piece together information from different data sources, and establish relationships and links. Through this approach, the officers are able to observe deviations, and identify specific trends and patterns in the trading environment.

Singapore Customs has also implemented an anomaly-detection business intelligence (BI) tool to flag shipments whose details fall out of the norm. On a real-time basis, the tool risk-scores Customs declarations based on pre-defined criteria and historical datasets in order to identify anomalies.

Apart from identifying shipments that are out of the norm, Singapore Customs also analyses the similarities in Customs declarations. Customs declarations which exhibit extreme similarities could be an indicator of rampant incorrect declarations.

As there are continual developments in the area of data analytics, Customs officers are required to keep abreast of new technologies, and constantly upgrade their knowledge. Singapore Customs also actively engages other government agencies and Customs administrations to learn about their experiences and best practices in the application of data analytics for fraud detection, as well as developments in data analytics capabilities.

Moving forward, Singapore Customs is exploring ‘machine learning,’ i.e. a method of data analysis that automates analytical model building and allows

The two critical factors contributing to the success of data analytics are the soft knowledge of Singapore Customs officers, as well as the hard elements of data analytics tools.

computers to find hidden insights without being explicitly programmed to look for them, in order to further develop Customs’ predictive capabilities in targeting.

### Risk-based targeting

By analyzing data, such as data on historical shipment trends and modus operandi (MO), Singapore Customs officers are able to triangulate irregularities that could, for example, suggest non-compliance, and use the results to target suspicious shipments for inspection. The outcome of these inspections also enriches the risk profiling capabilities of Singapore Customs.

To illustrate: in a case involving the detection of duty-unpaid cigarettes, Singapore Customs officers, through data analysis, observed that the weight of goods declared in a declaration was

lower than the historical norm. In addition, shipment details were found to be inconsistent with an importer’s past business activities. These irregularities were assessed to fit the risk profile of historical cases involving similar modus operandi, providing officers with enough just cause to target the shipment for inspection, which led to the detection of duty-unpaid cigarettes.

### Building staff competency

Singapore Customs has a dedicated team doing threat assessment on shipments and producing reports on evolving trends and patterns. The team comprises officers who are trained in diverse disciplines such as engineering, economics and social sciences. At the organizational level, all Singapore Customs officers are taught to apply risk assessment in various aspects of Customs’ work. The officers are also subject to job rotations every 3 to 5 years, enabling them to broaden their knowledge and experience, and build up their risk assessment capabilities as a whole.

The ‘soft knowledge’ acquired by Singapore Customs officers from data analysis is critical in decision-making. Such knowledge is strongly associated with officers’ domain knowledge and experience. As such, the two critical factors contributing to the success of data analytics are the soft knowledge of Singapore Customs officers, as well as the hard elements of data analytics tools.

Singapore Customs officers performing data analysis are provided with comprehensive training so that they understand the rules and underlying theories of data. They are also given hands-on experience in the enforcement and compliance aspects of Customs’ work. Regular joint training sessions with other Customs administrations and other domestic agencies are also conducted to enhance the officers’ competencies in data analytics.

For instance, Singapore Customs hosted a joint training session with the United States' Customs and Border Protection (US CBP) agency on 16 Nov 2016 to share insights and experiences in data analytics and targeting. Such collaboration positively impacted both administrations, and is in line with international WCO norms promoting Customs-to-Customs cooperation.

Through courses, formal meetings and site visits to relevant industry sectors, Singapore Customs officers have acquired insights into the evolving business environment, including industry trends and consumer behaviour, all of which have added further value to their knowledge base.

For instance, to understand the practices of air courier companies, Singapore Customs officers conducted site visits to air courier companies operating in Singapore to learn more about their operations and processes. These visits enabled a clearer understanding to be gained of how the industry operates, and aided in strengthening data analysis capabilities as Singapore Customs is able to input operational behaviour norms into our models to flag any anomalies.

Recognizing the strategic importance of data analysis, Singapore Customs continues to refine its data sources and explore other methodologies for data collection, in order to ensure that relevant and value-adding information

is collected and securely stored in its data warehouse.

In addition, Singapore Customs actively monitors the latest developments in the field of data analytics and available technologies, through study visits to domestic agencies which have adopted data analytics in their operations, and engagements with commercial vendors. By doing so, Singapore Customs is better able to understand the advancements in related technology, including products/tools, available on the market.

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# API-PNR: an overview of the French system

**By Christophe Hypolite,**

PNR MISSION, FRANCE

## The European context

European Union (EU) Directive 2016/681 on the use of Passenger Name Record (PNR) data was adopted on 27 April 2016. It requires EU Member States to collect and use both PNR data and Advanced Passenger Information (API) “for the prevention, detection, investigation and prosecution of terrorist offences and serious crime.” The Member States have two years to transpose the Directive into their national law, by which time it must be ready for implementation.

The Directive stipulates that a Passenger Information Unit (PIU) responsible for collecting, storing and processing data should be set up in each Member State. According to the text, any hits or positive results must be sent by the PIU to the operational units referred to as “competent authorities.” In addition, the Directive also covers data exchange between PIUs and with EUROPOL, as well as with third countries on a case by case basis.

Moreover, the Directive also stipulates that implementing acts should be drafted

and adopted in order to ensure that the International Civil Aviation Organization (ICAO) Guidelines are followed when it comes to the format of the data and the protocols applicable to the transfer of data from the aviation sector.

## API-PNR France project

Without waiting for the Directive to be adopted, France established a set of national legal measures, authorizing the collection, storage and processing of API-PNR data on air passengers and crew. The system was established by the law of 18 December 2013, which



## and the challenges faced

created Article L232-7 of the 'Code de la Sécurité Intérieur' (internal security code).

Two implementing decrees were adopted in order to get the API-PNR France system up and running: the decree of 26 September 2014, which provides for data processing; and the decree of 22 December 2014, which establishes a PIU. Article L232-7 was then amended, by the law of 28 July 2015, to broaden the scope of data collection to include 'non-carrier economic operators' (travel agencies,

tour operators) that charter all or part of an aircraft, and by the law of 20 June 2016, to include shipping lines.

France will transpose the Directive into national legislation in 2017 in order to ensure that its national provisions on PNR are fully in line with EU legislation: for example, a data protection officer (DPO) must be appointed at the PIU; and the amount of time that data can be stored before personal information is masked out will be reduced from two years to six months.

The 26 September 2014 decree provides for the collection of data on air passengers and crew on all flights into and out of France, except domestic flights, as of 1 January 2015. The data collection process has been introduced gradually, starting with the four airlines (Air France, Delta Airlines, Ethiad Airways and ASL Airlines France) that helped develop the API-PNR France programme, and later expanding to include other airlines from 1 January 2016.

To begin with, only flights to and from countries outside of the EU will be covered (around 55 million passengers per year out of a total of 110 million). Just over 40 airlines are connected to the system as France enters 2017, covering around 70% of all non-EU passengers. In the future, all 250 airlines operating international flights into or out of France (including intra-EU and French overseas territories) will send data on the passengers they are carrying.

### Data analysis

The API-PNR system will have a number of search, targeting and sorting functionalities designed to:

- obtain information from the passenger database;
- identify persons representing a risk from pre-tested standard profiles;
- compare passenger data collected with data from national, EU or international databases concerning people who are known or wanted, and stolen or lost documents;



- put one or more people or targets under surveillance for a given period.

With respect to French Customs, the analysis of the data enables it to identify, on a large-scale basis and very rapidly, sensitive or illogical routes, return flights at unduly close intervals in light of the weight of a passenger's luggage, unusual forms of payment, suspect travel agencies, etc., or a combination of these different criteria.

#### Staff training

The API-PNR France project entered a test phase in June 2016: the list of operational units now designated as 'competent authorities' was established; and a plan was devised for phasing in the new information technology (IT) system within these units. This is currently being rolled-out across all Customs units based at main international airports in France. The system is also becoming increasingly powerful as more and more airlines connect to it.

The French PIU is based near Roissy Charles de Gaulle airport, and is made up of staff from four partner administrations (Interior, Defence, Transport and Customs). It is now up and running, and is open from 07.00 until 19.30, from Monday to Friday. It should be open on weekends and public holidays by May 2017. By the end of 2017, the PIU will be staffed by more than 70 people, ensuring a 24/7 service.

A training plan for staff from the PIU and 'competent authorities' has been put in place, and over 100 people have already received training. The training strategy focuses on training trainers so as to increase each unit's training capacities. The PIU has equally been supporting users throughout the current test phase.

#### Results

The main purposes of processing data are for the prevention and detection of acts of terrorism, the offences referred to in Article 695-23 of the Code of

Thanks to the new data collection and analysis system, Customs has brought to light a number of matters linked to attacks on EU financial interests and money laundering, and has also made a number of seizures of cigarettes and tobacco. For the police, positive screening results have led to cases being handed over to the criminal prosecution authorities as well as to the detention of a number of 'flagged' individuals.

Criminal Procedure – participation in a criminal organization, trafficking in human beings, illicit trafficking in arms or drugs, etc. – and acts which violate the fundamental interests of the Nation.

Thanks to the new data collection and analysis system, Customs has brought to light a number of matters linked to attacks on EU financial interests and money laundering, and has also made a number of seizures of cigarettes and tobacco. For the police, positive screening results have led to cases being handed over to the criminal prosecution authorities as well as to the detention of a number of 'flagged' individuals. Intelligence services too reported having identified several individuals whose movements were being monitored.

Over and above the results already mentioned, the system has proven its worth to intelligence services in detecting 'weak signals' (the term used in the prevention of terrorism to refer to the faint/limited signals given out by an individual that presents a risk), has been of use in investigations and handling evidence, and simplifies investigative procedures (PNR data can be attached to reports and it is no longer necessary to issue a warrant in order to gain access to airline data).

#### Protecting personal data

Given that, by its very nature, such a system involves giving access to huge

amounts of personal data, any PNR system must be used on the basis of a principle of proportionality, meaning that any use of personal data must be commensurate with the specific security objectives set out by law in accordance with personal freedom requirements and personal data protection guarantees.

The French Administration presented its guarantees before the national data protection authority, and was met with approval. The French Administration has undertaken to:

- secure data collection;
- limit its collection of PNR data to the 19 authorized categories;
- limit the storage of data to five years, and to mask out data revealing an individual's identity after two years (to be reduced to six months after the Directive has been transposed);
- set up an automatic data filter to remove and destroy any sensitive data;
- give the 'competent authorities' access to the data once it has been checked, and set up a system to track any communication;
- stick to the list of authorized units (and related functions) set down in the December 2014 decree;
- guarantee passengers' rights to information;
- undergo audits and receive visits from the national data protection authority, and to draft a report on the test phase by the end of 2017.

Furthermore, once the EU Directive is transposed into national law, a DPO will be appointed at the French PIU. The DPO will have access to all the data processed by the PIU, and if the officer feels that this is not being done in line with the law, then he/she is responsible

for reporting non-compliance to the national data protection authority. Passengers can also contact the DPO, who acts as a single contact point within the PIU for any data protection issues. The DPO will also be informed of any PNR data shared with a third country.

### The issue of data quality

From the very beginning of the project, the choice was made to use the complementarity of API and PNR data (i.e. to marry the API data, which is limited in quality, with the PNR data, which is declarative and not verified, but potentially richer in information), and to respect international standards and examples of best practice.

For data produced by departure control systems (API data), a standard computer message (called the PAXLST) was developed to transmit information related to the identity of passengers, usually during the scanning of the machine readable zone (MRZ) of travel documents. The message, which has been used in the airline industry for many years, is quite short and can be sent easily via the carriers' traditional communication networks.

As for the collection and processing of booking information (PNR data), an internationally standardized message format (called the PNRGOV) allows this data to be sent to governments. Since 2013, France has been participating in the work to develop the PNRGOV standard, led by the WCO, ICAO and the International Air Transport Association (IATA).

While the PNRGOV message structure is now well-established, the standard leaves some room for manoeuvre for those in the aviation sector: the private sector and governments are still in the learning stages. The French API-PNR system, therefore, had to be made more flexible in order to make it possible to accept certain messages.

It should also be noted that PNR data is commercial data which is collected

primarily by the industry for the industry. Consequently, only data collected for commercial purposes will be transmitted as stipulated in ICAO document 9944. This explains why the quantity, type and quality of PNR data varies considerably from one airline to the next, and from one passenger to the next.

Yet, ensuring the quality of the data is, of course, essential: the IT data processing system must include all data received in order to (a) filter out any sensitive data, and (b) ensure that risk analysis results are as reliable as possible, thereby enabling unnecessary inspections to be avoided.

This issue was raised by France before the spring 2016 meeting of the PNRGOV Working Group, which brought together government and private sector representatives. The governments represented at the meeting identified the priority issues as being the lack of compliance with industry documentation, and the poor quality of third-party data (from traders, other airlines operating the same flight, etc.). A working group facilitated by the United Kingdom was set up in order to address these issues and come up with medium-term solutions.

### Support and capacity building

France advises States that are looking to set up their own API-PNR programme to take part in the discussions of the PNRGOV Working Group, which are held twice a year in spring and autumn, as well as in those held at the WCO during the API-PNR Contact Committee, which meets in autumn.

Two WCO-supported initiatives that came out of the meeting are worth noting: the creation of Guidelines on how to use API-PNR data; and, more recently, the draft Guidance on how to build API-PNR systems.

### More information

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## API-PNR

API data is produced during check-in, and includes all passport or identity card data necessary to identify the passenger or crew member, as well as general information on the flight.

PNR data refers to the records held by airlines for each flight booked by a passenger, and is used by the airline for its own operational purposes. This data makes it possible for all parties in the aviation sector (including travel agencies, air carriers and airport handling agents) to identify each passenger, and to access all information about his/her trip, return flights, any connections, and any special assistance requested on board.

# Developing data analyst skills: how the WCO contributes to expanding this specialized area of work

**By Tsendsuren Davaa,**

PH.D., PROFESSIONAL ASSOCIATE, COMPLIANCE AND FACILITATION DIRECTORATE, WCO

AS THE WCO is dedicating 2017 to encouraging the use of data analysis for more effective border management, I would like to share my own personal experience in this field, and explain how I was able to develop my data analysis skills thanks to the WCO's support.

Data analysis is not merely one of the core activities of any modern Customs administration; today it is a basic tool for any organization, requiring the adoption of a systematic approach to the collection and processing of data, as well as specialized and qualified personnel.

I started my career at Mongolian Customs some 20 years ago as a Customs examination officer before being transferred to headquarters where I have been involved in policy making for the last decade.

My capacity to grow and continually evolve in my career is largely due to the fact that I took advantage of the training opportunities offered by the WCO. I could, therefore, be considered a "product" of the capacity building programme which the WCO developed for its Member Customs administrations.

Over the years I have attended various WCO workshops and seminars, including a risk assessment workshop which was held in Qingdao, China in 2009. It was actually the risk assessment workshop which led to me taking my first steps in risk analysis. The expert from the WCO Secretariat, who led the workshop, became my first risk management teacher and has continued guiding and encouraging me to develop my knowledge and skills.

After the workshop, I decided to apply for a place on the Japan-WCO Human Resource Development Programme – a

scholarship programme which provides grants to promising young Customs managers from developing countries, enabling them to undertake master's level studies in Japan. I chose to study for a master's degree in public finance at the National Graduate Institute for Policy Studies in Tokyo.

The curriculum enabled me to enhance my analytical skills, especially my ability to use social-economy and statistics methods. Besides academic lectures, the degree programme also included the study of best practices, and visits to Japan Customs to experience real-time field operations. After completing my master's degree, I felt that I had strengthened my skills as a data analyst.

On my return to Mongolia Customs, I was promoted to the post of Deputy Director of the Customs Control and Risk Management Department. As such, I participated in a WCO accreditation workshop on the topic of risk management, which was organized in Hong Kong, China in 2012. The accreditation process involved a two-step approach:

- Participants have to attend a five-day workshop, mixing theory and practice, during which they are assessed;
- Participants deemed to have potential, then take part in a capacity building mission with an expert, during which their training skills are evaluated.

I passed the first step successfully, and hope to complete the accreditation process soon and become part of the WCO's pool of experts on risk management for the Asia/Pacific region.

I actually had a chance to practice my training skills by participating as a facilitator in five workshops. Three of them were organized in 2013 by

the Organization for Security and Co-operation in Europe (OSCE) at its Border Management Staff College in Dushanbe, Tajikistan: the "Border Management Senior Officer Training Workshop;" which is held twice a year; and the "Women in Border Security and Management - Leaders of Today and Tomorrow Workshop." The other two took place in 2016: the "Risk Assessment and Selectivity with Advance Cargo Information Workshop" in Japan; and the "Risk-Based Passenger Selectivity Workshop" in Mongolia.

I also try to share my knowledge by writing articles and reports for international and Mongolian publications, such as the World Customs Journal and the Scientific Journal of Mongolia. To date, 27 of my articles have been published on topics such as Customs risk management, comparative studies, Customs valuation, trade facilitation, and border management.

One of the major changes in my life came in November 2015, after I had completed a doctoral degree in business administration from the Mongolian National University. My dissertation was titled "Ways to mitigating Customs control risk." After graduating, I had the opportunity to lecture to students studying for their master's and doctoral degrees at the very same university. Analysing data, and teaching students and colleagues how to do it, is my favourite activity.

Last year, I was selected to participate in the Career Development Programme, an initiative launched in 2009 by the WCO, in cooperation with Japan Customs, which provided me with an opportunity to work at the WCO Secretariat for 10 months. It was one of the greatest moments of my life. Never would I have imagined, when I first joined Mongolian Customs, that one day I would be working at the WCO Secretariat.



The WCO Secretariat is a sort of knowledge bank, and, since my arrival, I have been learning a lot from my tutors and colleagues. Each programme participant has to produce a study paper on a topic of his/her choice. My study report will look into the possibilities of how to apply a comprehensive and systematic risk differentiation model to Customs control.

For this purpose, I am analysing approximately three million records, which relate to import clearances over the last three years, as well as the export records of six of Mongolia's major commercial partners. The objective is to undertake a mirror analysis of the data, which involves using the Harmonized System (HS) Code to compare the imports (or exports) of a country with the exports (or imports) reported to the country by its trading partners, in order to detect gaps in terms of quantities, weight or value that may reveal fraudulent trade flows or practices.

In undertaking my study, I am also using methodologies such as gap analysis (comparing actual performance with potential or desired performance), econometric analysis (applying statistical techniques to analyse

economic data), clustering (grouping a set of objects in such a way that the objects in the same group are more similar to each other than those in other groups), and quantitative analysis (using mathematical and statistical methods to study behaviour and predict outcomes). My calculations are made using Microsoft Excel and E-views software.

Over the years, many Customs officers like me have obtained academic and professional knowledge on Customs matters, thanks to the WCO's support and assistance. I hope my story will inspire others and motivate them to take advantage of the many opportunities offered by the WCO to advance their careers to the benefit of their administrations, including sharing their work and practices with the entire Customs community.

**More information**

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My capacity to grow and continually evolve in my career is largely due to the fact that I took advantage of the training opportunities offered by the WCO. I could, therefore, be considered a "product" of the capacity building programme which the WCO developed for its Member Customs administrations.

# Cognitive computing for Customs agencies: improving compliance and facilitation by enabling Customs officers to make better decisions

**By Stewart Jeacocke,**

GLOBAL CUSTOMS EXPERT, IBM,

**and Norbert Kouwenhoven,**

EU CUSTOMS LEADER, IBM EUROPEAN UNION TEAM

DATA ANALYTICS – for example, automated selectivity rules – has become an increasingly important tool for Customs agencies. However, conventional data analytics has some critical limitations. It can only look for pre-defined patterns and rules, and cannot make use of unstructured data, which comes in the form of emails, social media, blogs, documents, images and videos. Cognitive computing allows Customs agencies to extract insights from both structured and unstructured data, discover new patterns and rules, capture the experience of top performers, and improve the quality and consistency of decision-making.

## The dawn of the ‘cognitive’ era

On 11 May 1997, the Deep Blue computer system beat Grandmaster and world chess champion, Garri Kasparov, after a six-game chess match. This represented a major milestone in the evolution of computer systems. The Deep Blue project inspired a more recent grand challenge: building a computer that could beat the champions at a more complicated game – the American game show Jeopardy!

Over three nights in February 2011, this computer system – named Watson – took on two of the all-time most successful human players of the game, and beat them in front of millions of television viewers. The technology in Watson was a substantial step forward from Deep Blue. By understanding and processing a massive supply of unstructured data, Watson demonstrated that a whole new generation of human-machine interaction is possible. Watson had ushered in a new era of computing: the ‘cognitive’ era. Since then many large technology firms, such as IBM, Google, Facebook and Apple, have all developed cognitive computing technologies.

Cognitive systems have three characteristics that distinguish them from programmable era systems. They:

- understand unstructured data, through sensing and interaction;
- reason by generating hypotheses, considering arguments, and making recommendations;
- learn from training by experts, from every interaction, and from continually ingesting data.

It is estimated that 80% of all data generated today is unstructured. The dawn of the cognitive era means that machines can, for the first time, create insights from this enormous volume of data. Unstructured data is data which is not organized in a pre-defined manner; it is typically text heavy and often consists of documents, reports and articles, but can also include images, social media and videos. This previously unintelligible pile of documents is now a rich source of data for cognitive systems which can process it faster and more accurately than humans ever could. Processing the entire content of Wikipedia is a piece of cake for a computer!

## Early successes in oncology

The first successful commercial use of these cognitive software capabilities can be found in the medical world, in the field of oncology. Watson is being used to process unstructured medical and research notes, as well as test results. These notes include descriptions of symptoms, patient characteristics, chosen therapy, and the corresponding therapy results. Watson is able to process this vast stream of information, generating correlations, patterns and hypotheses; this along with training by expert clinicians is used to create a corpus of knowledge.

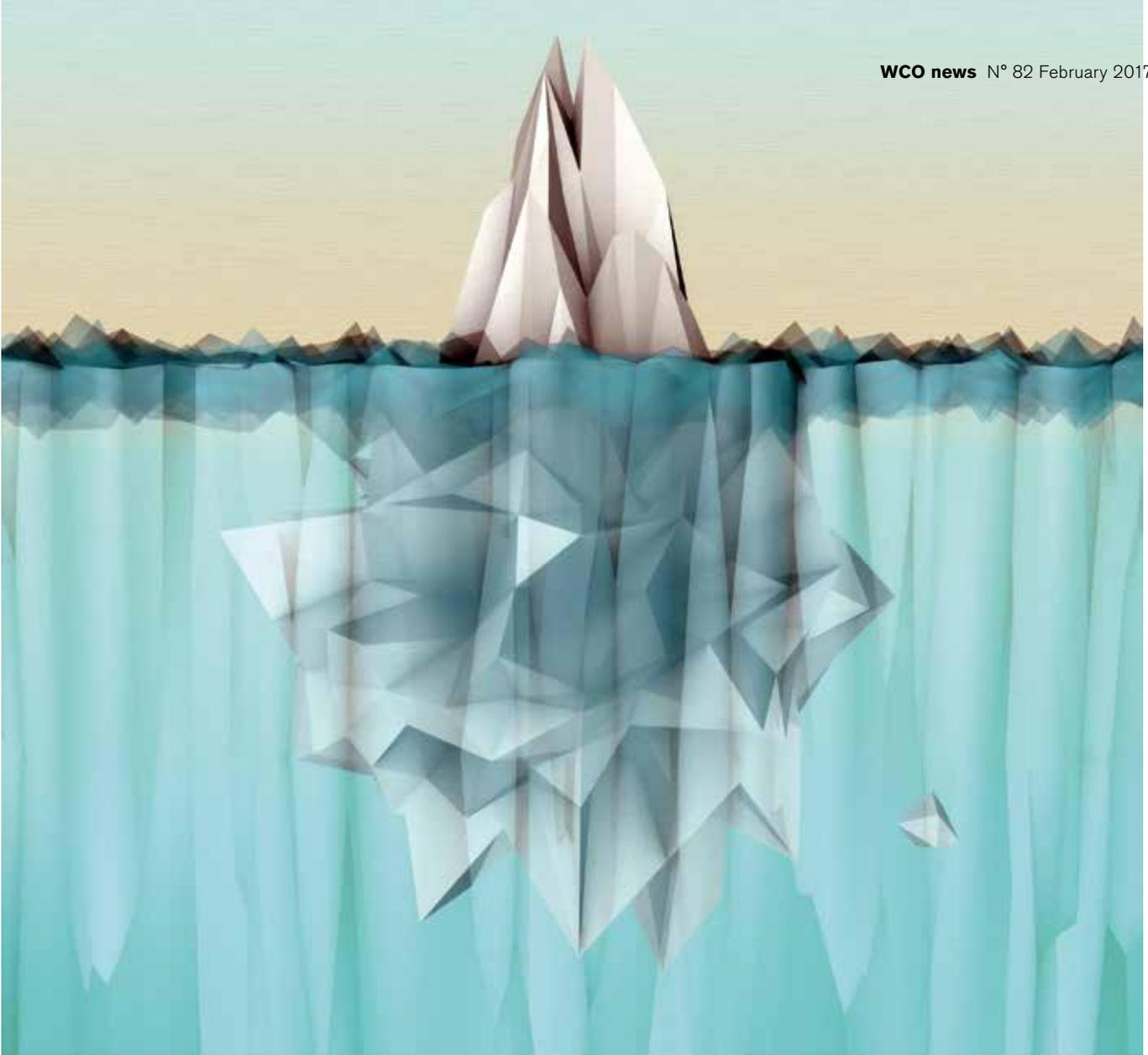
Using this corpus of knowledge, Watson helps physicians identify personalized therapy options for patients. Given a

patient’s symptoms and history, Watson will suggest various therapy options, and a confidence score for each option. It allows the physician to drill down into the documents used to generate each hypothetical therapy option so that they can understand the evidence on which Watson is basing its recommendation. The more relevant information Watson finds to support a particular therapy, the higher the confidence score. Where additional test results would assist in improving Watson’s recommendations for the patient, it will suggest these to the physician.

The Watson solution allows local physicians and their patients to benefit from the hundreds of thousands of pages of medical research and results – a knowledge base that is too large and evolving too fast for any individual to be able to read everything in order to stay current. Watson provides local physicians with advice on treatment options, but the treating doctor is still in control of making the final treatment decision along with the patient.

## Cognitive systems for Customs

Informed compliance, risk management and audits continue to be some of the most powerful techniques used by Customs agencies to deliver their mission. These techniques allow Customs agencies to assist the vast majority of economic operators who wish to be compliant, and enables them to concentrate their resources on controlling the smaller number who represent the greatest risk to a country. Data analytics – for example, automated selectivity rules – has become increasingly important in enabling these techniques. However, conventional data analytics has some critical limitations. It can only look for pre-defined patterns and rules, and cannot make use of unstructured data, causing it to ignore 80% of all available data.



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The amount of data available to Customs agencies is exploding, and much of it is unstructured. Initiatives aimed at creating a global platform of information, such as the WCO's Customs Enforcement Network (CEN), are increasing the amount of information shared between agencies. The ease of publishing information on the Internet has dramatically increased the number of relevant open source intelligence sources. Supply chains are becoming more instrumented and interconnected, and economic operators are sharing more of this information with Customs.

Cognitive systems allow Customs agencies to extract insights from this mass of big data, discover new patterns and rules, capture the experience of top performers, and improve the quality and consistency of decision-making across their organizations. In doing so, they

improve an agency's ability to engage, decide and discover:

- Engage – Informed compliance can be improved with a virtual assistant, which engages in a conversation with travellers or infrequent importers; guiding them through the import process, or highlighting relevant preferential schemes. Recently, Dubai launched Saad, a virtual assistant which guides individuals through the process of opening a business. During inspections, Customs officers could use an iPad to take a photo of a foreign language document, and see it instantaneously translated into their native language on screen. Or, they could take a photo of an unknown item and automatically search for similar images in their agency's knowledge base, assisting them to determine the correct course of action. Targeting officers could query a single system to access all intelligence and information relating to a consignment, allowing them to determine quickly whether the consignment should be held for inspection;
- Discover – Cognitive systems can be used to 'mine' Customs data, enabling previously unknown patterns, relationships and indicators of fraud or other risks to be discovered. This data is no longer restricted to just that which has been captured electronically in information technology (IT) systems as part of the Customs declaration process. Commercial documents along with open-source intelligence sources, such as news sites, organizations' websites, social media, company filings, container tracking and vessels' automatic identification system (AIS) broadcasts, can all be processed, merged with classified government records, and used to derive insight;

- Decide – Conventional selection/targeting systems can be enhanced with cognitive technology so that they also process the free-text information in economic operators' filings, and use it to improve targeting accuracy. Goods descriptions can be automatically compared to the declared tariff classification, in order to identify cases of misclassification; a technique that has already been adopted by the Government of the Bahamas and other Customs agencies. In a world that is not too far away, the images from scans of trucks and containers could be automatically compared to economic operators' filings as a means of highlighting those shipments where the scan does not appear to match the goods description.

#### Cognitive targeting

Some countries have already implemented cognitive solutions to improve their targeting/selectivity processes. Canada Border Services Agency (CBSA) enhanced its targeting rules so that it could apply cognitive processing to free-text goods description fields. By doing this, they were able to improve the accuracy of the targeting rules compared to their previous keyword search approach.

A simple example of the improvements is that the cognitive solution understands that a goods description including the words "no wood crates" should not match against a profile for controlling wood packaging. Previous keyword matching techniques would have matched against the wood packaging profile because the text included the word "wood." The cognitive solution understands that the "no" indicates a negation. This reduction in false positive matches translates into reduced inspection efforts, benefitting both the CBSA and economic operators.

#### Cognitive advisor for intelligence and investigations

Several countries are experimenting with using cognitive solutions to assist with intelligence and investigations. A common solution is an intelligence

advisor which allows investigators to analyse structured and unstructured data sources by posing queries in natural language. The investigator logs into the system, and types in a query in natural language: for example, "What connections are there between football gangs and drug trafficking?" or "Which members of the Ultras football gang are connected to companies undertaking activities at the Port of Sevenberg?" The cognitive intelligence advisor responds with a series of hypotheses.

For the first question the responses of the intelligence advisor might include "Ultras", "Baltic Nations" and other hypotheses. The investigator can drill into each hypothesis to understand the evidence behind it. This evidence might be document excerpts from classified intelligence databases, or open sources such as press articles or grey literature. With a small team and three weeks, one Customs agency was able to create a pilot system that processed over 20,000 documents from six different open source intelligence sources, such as Reuters, national news agencies, and company websites and press releases, allowing users to interact with it in the manner described above.

The simplicity of the interaction hides a significant amount of system intelligence. Cognitive systems work in a similar manner to the way humans undertake a task; they learn by being taught by another person. Older programmable systems, by comparison, must be programmed with specific rules. The system must gather data in a huge range of formats from a wide range of sources. It understands the language contained in the documents and users' queries; for example, that "Ultras" is the name of an organization, and that the user is looking for relationships between that organization and the Port of Sevenberg.

A small group of intelligence officers train the system by querying it in the manner described above, and then indicating which of the responses

brought back by the system are most relevant to the question being asked. This process trains the system by creating a corpus of knowledge. The training teaches the system which parts of the data that it has access to are most relevant to answering particular types of questions.

After sufficient training the system will start to answer queries in the way that an intelligence officer would, and will highlight connections that could take an officer years to discover manually. Furthermore, the system scales the knowledge of a small group of expert intelligence officers to all Customs officers who have access to the system, lifting the performance of all staff up to that of leading experts.

#### Customs agencies need a cognitive roadmap

Cognitive computing has arrived and is already being exploited by forward thinking Customs agencies. Organizations which successfully apply cognitive computing follow a structured, but agile roadmap which nurtures optimism whilst breaking down any complacency.

Cognitive computing helps Customs officers make better decisions in a wide range of different scenarios by understanding the vast amount of unstructured data that is inaccessible to conventional IT systems and reasoning, generating hypotheses and learning from expert officers. It allows all officers to benefit from the experience of an agency's best experts, whether they are investigating complex cases of fraud, or determining whether to inspect a shipping container.

The cognitive era has arrived; every Customs agency should have a roadmap for adopting cognitive computing, and use it to usher in a new era of Customs facilitation and compliance.

#### More information

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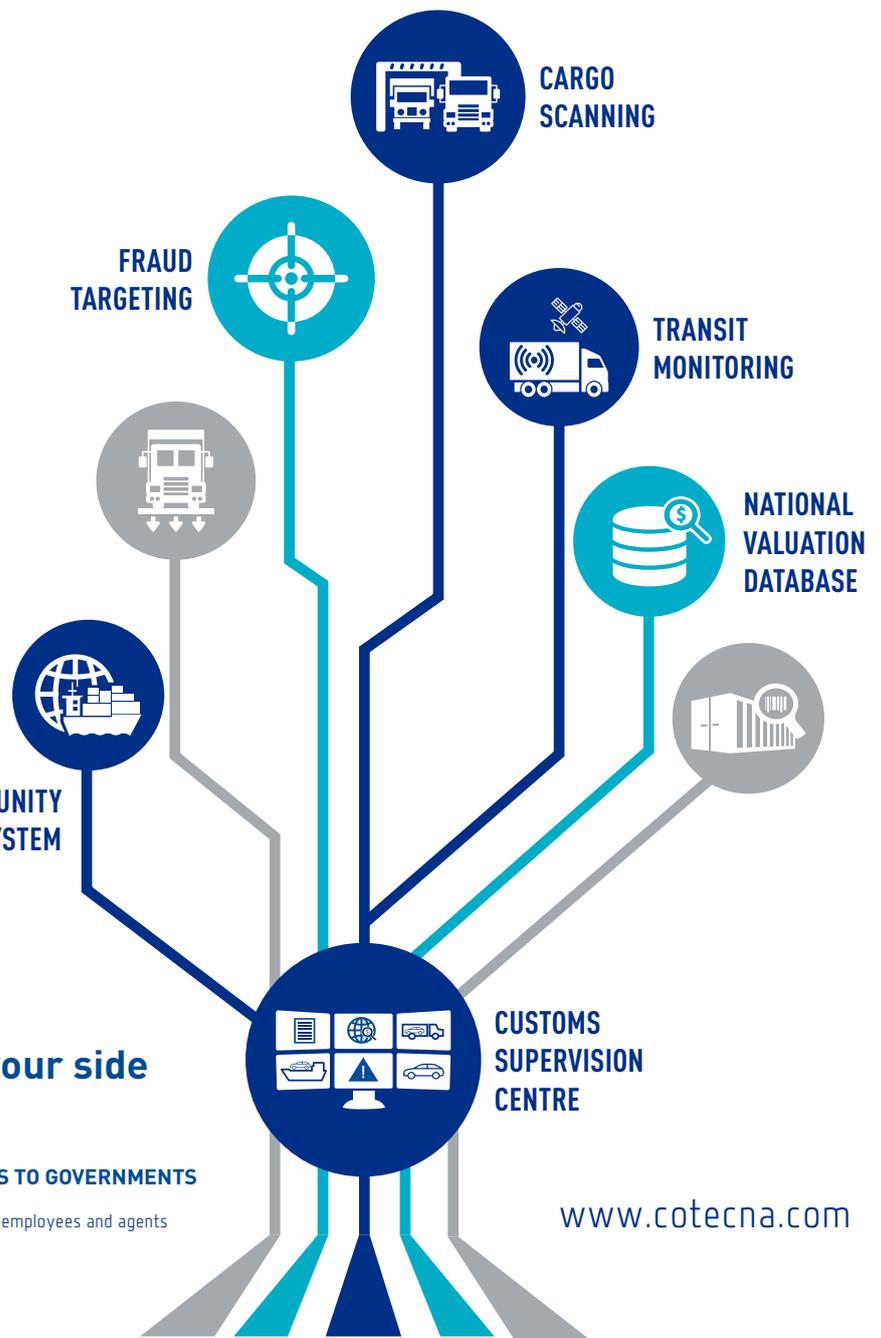
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# Emerging technologies can transform border management, but agencies must prepare

**By Jim Canham,**

SENIOR MANAGING DIRECTOR AT ACCENTURE

GLOBALIZATION AND THE rising threat of terrorism are just two of the many issues challenging border agencies' ability to secure the swift movement of people and goods across borders. At the same time, emerging technologies such as the Internet of Things (IoT), blockchain, biometrics, data analytics and machine learning have introduced new risks and opportunities, requiring a rapid and innovative response from industry leaders.

A recent Accenture survey of 91 leaders within border agencies across nine countries – Australia, Finland, France, Germany, Japan, Norway, Singapore, the United Kingdom, and the United States – found that despite challenges, the majority (92%) are willing to adopt next-generation technologies.

In fact, most believe that these technologies can help reduce risk and improve border security (68%), while enhancing customer service delivery (54%). Despite this near consensus, many agencies have not yet deployed these technologies due to significant implementation obstacles.

## The new IT

In the coming years, emerging technologies will fundamentally change border management, creating huge opportunities for industry transformation. While some agencies, such as Singapore Customs [<https://www.customs.gov.sg/~/-/media/cus/files/insync/issue40/article3.pdf>], have taken steps to deploy these technologies, most are struggling to keep up with the pace of innovation.

Respondents cited increasing service demands (58%), a fast-changing operating environment (47%), challenging legacy system integration (43%), and an aging workforce (41%) as the four biggest challenges facing border agency leaders today, all acting as barriers to digital transformation.

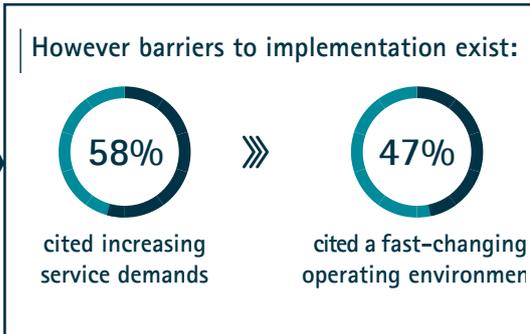
However, some agencies are embracing more familiar technologies, especially those that will help them achieve their data management and operational objectives. For example, the research found that three-quarters are utilizing advanced analytics and predictive modelling techniques to re-engineer travel and Customs processes, thereby improving overall business performance.

The most commonly cited reason for implementing advanced analytics was to improve and augment the work of employees (48%). Surprisingly, cost reduction was not a key motivation for survey respondents, only 15% of whom said they had budgetary concerns.

Despite the relatively high adoption of data analytics solutions, respondents reported limited use of video analytics, with less than a third saying they were piloting the technology – in spite of the clear benefits that video analytics capabilities bring to the management of ports and border crossings.

Adoption of biometric-based solutions was also surprisingly low. Only 36% of survey respondents are using this technology, despite the availability of mobile devices to capture the biometric details (fingerprints, facial image, etc.) of travellers at border points or when they apply for visas. And, while two-thirds of respondents were familiar with the IoT, less than one third were piloting or implementing IoT-related projects.

Despite these low adoption rates, there are pockets of innovation – the use of smart containers, embedded sensors, and tracking technology by some border agencies. This is most notable in the freight industry with its use of smart containers embedded with sensors and tracking technology such as GPS and RFID chips, allowing manufacturers, carriers, and shippers to monitor the



temperature, vibration, losses and location of their cargo more accurately.

### People and processes

The deployment of next-generation technologies demands significant operational changes for border agencies, but forward-looking agencies are taking steps in the right direction. A majority of survey respondents said that they have adapted their work processes (88%) and organizational models (68%) to accommodate technology adoption.

The Finnish Immigration Service (MIGRI) is one agency taking steps to drive the adoption of new technologies through its Smart Digital Agency programme, designed to enable the digital transformation of MIGRI's operations. Through a series of pilots, the initiative will examine the potential impact of emerging technologies, such as analytics, artificial intelligence, machine learning, robotics, and intelligent processing services.

The survey also revealed that most Customs and border agencies (87%) believe that new technologies will improve job satisfaction among employees by allowing them to focus on more specialized, higher level tasks.

Over half of respondents said their organization currently possessed the necessary skills to drive change, including data scientists (52%) and Research and Development (R&D) staff (54%). A similar percentage reported that they are currently looking to hire new digital developers and designers.

### Collaboration

Another factor impacting the deployment of new technologies is a lack of industry

role models. Most survey respondents (89%) said that they study successful implementations from the private sector, while only one-fifth (20%) look to their public sector peers for best practices. Collaborating with universities, research institutes, and forward-thinking companies can help border agencies to identify and actualize innovative solutions to operational challenges.

Interestingly, more than two-thirds of respondents said that they are willing to embrace public-private partnerships and new commercial models (69%), and to consider "as-a-service" models for technology deployments (70%). A similar proportion say that they have already teamed with the private sector to help meet increasing service demands (73%).

### Innovation mindset

Education and collaboration are crucial for helping border agencies to harness the transformational potential of intelligent technologies. The private sector and academia should keep their public sector peers informed about emerging technologies, sharing best practices and lessons learnt from their deployments.

Fortunately, the vast majority of border agency leaders (92%) support the deployment of intelligent technologies. This innovation mindset is key to the safe, secure and efficient passage of people and goods across borders, as well as an economic imperative and key driver of national and global prosperity for all countries.

### More information

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### The Internet of Things (IoT)

The network of physical objects or 'things' embedded within electronics, software, sensors and network connectivity, which enables these objects to collect and exchange data

### Blockchain

A database of all transactions across a peer-to-peer network

### Biometrics

the measurement and statistical analysis of people's physical and behavioural characteristics

### Data analytics

The pursuit of extracting meaning from raw data using specialized computer systems

### Video analytics

Applying computer vision algorithms to video surveillance feeds

### Machine learning

The construction of computer programs that automatically improve with experience



cited challenging legacy system integration

Despite challenges, some forward-looking agencies are making progress:



75% using data analytics



33% use video analytics



36% deploying biometrics



30% implementing IoT related projects



## Customs and the environment: bringing about a better future for all

**By Roux Raath,**

ENVIRONMENTAL PROGRAMME MANAGER, WCO

NUMEROUS MEDIA OUTLETS often publish alarming articles about the dire state of the environment, but is this really the case? The answer to this is, unfortunately, an unambiguous YES!

Even rudimentary research substantiates that the environment, in all its facets, is deplorably under severe threat and if the status quo is not halted and reversed, the end result will be disastrous for all who inhabit the planet.

The term ‘environment’ attracts various definitions, such as “the aggregate of surrounding things, conditions, or influences; surroundings; milieu,” or

“the air, water, minerals, organisms, and all other external factors surrounding and affecting a given organism at any time.”

For the purpose of this article, environment refers, in a broad sense, to the surroundings, such as air, water, etc., inclusive of living things. ‘Environmental crime,’ on the other hand, refers to the illegal activities that cause damage to or harm the environment – this would typically include the illegal exploitation of the world’s wild flora and fauna, and pollution-related crime, which includes the trade and disposal of waste and hazardous substances in contravention of international legislation.

**The human factor, an incessant thirst for natural resources**

The various byproducts of human activity, such as pollution, as well as human beings’ incessant thirst for natural resources that far outweighs supply, are the largest contributors to the current precarious state of the environment. By 2012 it was already estimated that the equivalent of 1.6 Earths were needed to provide the resources humanity consumes annually.

An ‘overshoot day’ refers to the day each year when demands on the planet’s resources outstrip its ability to regenerate. More worryingly, the date on which the Earth goes into ‘ecological debt’ has been occurring earlier and



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It is imperative for Customs administrations to consider the gravity of environmental crimes, and ensure that such crimes receive the strategic recognition and operational attention that they deserve. Turning a blind eye to the myriad environmental threats that we face should not be an option, and it is requisite to reconsider what Customs can do in order to bring about a better environmental future for all.

#### Climate change, a major threat

Various aspects contribute to the environmental status quo. Climate change, for example, is considered a major threat, perpetuated by increasing anthropogenic pollution (i.e. pollution chiefly created through human activity), which could result in a two-degree Celsius temperature rise for humankind – some scientists say it is unavoidable. A notable example is that of the Bramble Cay melomy, a small, mouse-like rodent, which was the first mammal to become extinct due to anthropogenic global warming.

Customs contributes towards mitigating climate change, and the WCO News (edition No. 81 of October 2016), which carried an article under the title “Global Warming, International Trade, and the Quantification of Carbon Emissions: Production-based and Consumption-based Accounting,” provides context to the carbon problem.

#### Wildlife crime, the fourth largest criminal activity

Wildlife crime also raises a major concern. It is not only big business, but is also run by international criminal networks, where experts estimate the value of the ‘trade’ to be between five and 20 billion US dollars per year, making wildlife trafficking the world's fourth largest criminal activity. The following statistics speak volumes:

- Rhino horn is now worth more than gold, and reaches prices between 30,000 and 60,000 US dollars per kilogram on the illicit market;
- Rhino poaching in South Africa, for example, has increased from 13 rhinos killed in 2007, to 1,175 in 2015 – i.e. an 8,938% increase;
- The elephant population has decreased by 62% over the last decade, and of the remaining 400,000, on average 100 are poached daily for their ivory;
- Other species are, likewise, systematically killed-off and over-exploited, such as tigers, marine turtles, pangolins and timber trees, to mention a few.

The international wildlife trade is regulated by the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). While a large proportion of the trade is legal, the rapidly increasing proportion of illegal trade in wildlife makes the disappearance of species nearly certain. The CITES Secretariat, after conclusion of the 17<sup>th</sup> meeting of the Conference of the Parties to CITES (CoP 17), held in South Africa in late 2016 and attended by 2,600 delegates from more than 160 countries, announced that as a result of the decisions taken by CITES Parties (member states), multiple new animals and plants were added to CITES Appendices for the first time, and will come under international trade controls, increasing the demand on frontline customs officers to intervene where necessary.

Appendices I, II and III to the CITES Convention are lists containing over 35,000 species that are afforded different levels of protection from over-exploitation and international trade, where Appendix I lists species that are the most endangered and that cannot be traded internationally for commercial purposes, where Appendix II and III species can be traded under strict international controls. Following CoP 17, among the species that achieved a listing on Appendix I are all eight species of pangolin, the African grey parrot, the helmeted hornbill, and

earlier each year. This phenomenon first occurred in the 1970s, and to place this into perspective, some past overshoot days occurred on 24 December 1971, 5 November 1980, 13 October 1990, 25 September 2000, 14 August 2010, and 8 August 2016.

A report by the World Wildlife Fund and the Zoological Society of London (October 2016) found that by 2020, the world's populations of vertebrates will have dropped by 67% since 1970, and that extinction rates are currently 100 times higher than the natural extinction rate stemming from climate change, overfishing, hunting, and deforestation. This means that at the present rate of extinction, the world is facing its biggest mass extinction since that of the dinosaurs – two thirds of animals will be wiped out in 50 years from now! Leading scientists have warned that we are in the midst of the planet's sixth period of mass extinction.

barbary macaques. In addition, the international trade for a substantial number of new mammals, marine and timber species, as well as many reptiles and amphibians, and also more than 350 species of rosewood, devil rays, silky sharks and thresher sharks, is now controlled.

### Harmful and waste products, poisoning the Earth

The attack on the environment is further perpetuated by the continuous production of harmful and waste products, such as plastics, medical waste, dangerous and toxic pesticides, radioactive waste, and even old cooling appliances that leak Ozone Depleting Substances (ODS).

Toxic waste causes long-term poisoning of water and soil, which adversely affects peoples' food sources and eventually their health. Every year more than 400 million tonnes of hazardous waste is generated, where a great proportion thereof is illegally shipped to and dumped in other jurisdictions. The United Nations Environment Programme (UNEP),

for example, estimated that between 20 and 50 million tonnes of electrical and electronic equipment waste, also known as e-waste or WEEE, is generated annually – 70% of which is dumped in developing countries in Africa and Asia.

The WCO shared with its readers in the February 2016 edition of this magazine the recommendations developed by a group of experienced professionals who participated in the Countering WEEE Illegal Trade (CWIT) Project, launched by the EU in 2013.

There are also new developments regarding ozone depleting substances. The governments of 150 countries reached a compromised agreement in October 2016 to phase out Hydrofluorocarbons (HFCs), which will require the vigilance and dedication of Customs officers to ensure that legal trade is facilitated, and that illegal trade is combatted. HFCs were designed to replace chlorofluorocarbons and are widely used in refrigerants, but have recently been the subject of criticism as

they are also highly potent greenhouse gases – more potent than carbon dioxide.

Countries usually monitor the consumption of such products through a quota allocation system, product stewardship, compliance inspections, and a licensing system. Customs administrations are key actors in these control schemes as they are the ones largely responsible for collecting all the trade data needed to monitor and control the trade, and to detect and prevent any illegal trade. Detailed information on the subject is available on an article in the following page of this magazine.

### Growing outrage, a strengthened call for action

Ever increasing pollution, the unlawful disposal of waste, wildlife crime, illegal logging, and unreported and unregulated fishing, have all contributed towards a situation where a lukewarm approach is considered objectionable – the growing outrage and clamour for immediate action from all quarters of the globe is proof of this. But what can the WCO and its 180 Member administrations do to ensure a better tomorrow?

### WCO actions, responding to the threat

Since 2003, the WCO has been an active partner, together with UNEP, to the Green Customs Initiative (GCI). The GCI aims to enhance the capacity of Customs and other relevant enforcement personnel to monitor and facilitate the legal trade and to detect and prevent the illegal trade in environmentally-sensitive commodities governed by the relevant conventions and multilateral environmental agreements (MEAs), covering ODS, toxic chemical products, hazardous wastes, endangered species, and living-modified organisms.

In 2008, the WCO Council adopted a Recommendation concerning Actions Against Cross-Border Environmental Offences, in which steps to be taken by Customs administrations to enhance their capabilities in this area have been outlined. This was followed in 2010 by a decision by five international



Women sorting plastic waste, some of which will be melted down.

organizations, namely the WCO, the CITES Secretariat, INTERPOL, the United Nations Office on Drugs and Crime (UNODC) and the World Bank, to join forces to form the International Consortium on Combating Wildlife Crime (ICCWC).

ICCWC's mission is to strengthen criminal justice systems and provide coordinated support at national, regional and international level to combat wildlife and forest crime. The Consortium provides support to national wildlife law enforcement agencies, as well as to regional and sub-regional networks. In 2012, the ICCWC launched the Wildlife and Forest Crime Analytic Toolkit, which was developed to provide a comprehensive overview of matters related to wildlife and forest crimes, and aimed at government officials in wildlife and forestry authorities, as well as Customs and other relevant agencies.

Although long involved in issues pertaining to the environment, the WCO, in response to its Members' needs, decided to consolidate its activities with the launch of its Environmental Programme in 2012. The Programme aims to contribute to the combating of environmental crime, in particular, the illegal wildlife trade, the illegal trade in hazardous and other waste, ODS, and the illegal trade in timber.

As Part of the Programme, the WCO also started implementing the activities of the Inama Project in 2014, which aims to strengthen Customs' CITES enforcement capacity in selected countries in Sub-Saharan Africa. The continuous focus on illegal wildlife trade through training provided to Port Control Units (PCUs) created and trained under the Container Control Programme (CCP), developed jointly by the UNODC and the WCO, has, in addition, increased capacity within Member Customs administrations. These Units are currently fully operational in 34 countries.

Operationally, Customs administrations have already various practical tools at

## A snapshot of the ICCWC's mission and work

ICCWC's mission is to strengthen criminal justice systems and provide coordinated support at national, regional and international level to combat wildlife and forest crime. The Consortium supports national law enforcement agencies, assists in establishing wildlife law enforcement agreements, undertakes research into the causes, nature, scale and value of wildlife crime and related violations, and proposes innovative ways to prevent and discourage such crimes. In addition, the ICCWC supplies expertise and resources, jointly develops new capacity building material and tools, raises awareness on wildlife crimes and other related violations in the wider law enforcement community, and, where appropriate, seeks donor support to enable the provision of such services in the form of joint projects and programmes. The ICCWC Strategic Programme 2016-2020 outlines ICCWC's comprehensive strategy and types of activities to be pursued by the Consortium up to 2020 based on funding availability and donor support.

### More information

[www.cites.org/eng/prog/iccwc.php](http://www.cites.org/eng/prog/iccwc.php)

their disposal in the fight against the illegal wildlife trade. These tools include:

- the Customs Enforcement Network (CEN);
- ENVIRONET, a real-time communication tool for information exchange among all competent national authorities, international organizations, and regional networks;
- the CLiKC! platform, a WCO e-learning facility containing courses on environmental crime.

The WCO also organised and coordinated a number of law enforcement initiatives and operations, which have also proven to be effective to test the enforcement capacities of some countries, identify modus operandi as well as to share information among countries.

Having worked for many years to turn the attention of the policymakers to environmental crimes, the WCO gained additional momentum in June 2014, when the WCO Council unanimously adopted the WCO Declaration on the Illegal Wildlife Trade, which demonstrates the commitment of the global Customs community to address these crimes in a timely, coherent, and coordinated manner.

The WCO also supports an initiative aiming at forging partnership with freight forwarders, logistics companies, land, air and sea carriers, including passenger airlines, who are being abused by traffickers in wildlife who depend on them to smuggle illicit goods from source areas to market destinations. The transport fraternity plays a critical role in being the eyes and the ears of enforcement agencies, helping to identify and strengthen key risks in the supply chain. In 2016, the WCO signed the United for Wildlife Transport Taskforce Buckingham Palace Declaration, the result of 12 month's work carried out by leaders from the global transportation industry, conservation organizations and several international organizations, including the WCO.

The WCO also pledged its support to the resolutions of the CITES CoP 17 which are mentioned earlier in this article, as well as to the Hanoi Statement on Illegal Wildlife Trade and hopes that countries' commitment, especially those to provide financial support and technical support to initiatives aimed at developing capacity to tackle wildlife crime, will be implemented. In addition, it further bears mention that in 2015, the WCO worked closely with the CITES Secretariat to integrated the CITES Enforcement Authorities Forum with

ENVIRONET. The Forum was a closed user forum that the CITES Secretariat used to reach out to the law enforcement community through the posting of various alerts, manuals, handbooks and enforcement-related messages. This is now part of ENVIRONET and the ENVIRONET library, where selected folders managed by the CITES Secretariat include copies of CITES Notifications on enforcement matters, alerts issued by the CITES Secretariat, CITES sample permits and certificates and other relevant materials and information.

### Customs, uniquely mandated and positioned

Customs administrations are uniquely mandated and positioned at the borders of a country, or at critical 'chokepoints' in the supply chain. Not only do they control the flow of goods across borders, they also make rulings on the procedure, or treatment a consignment is subject to. In this regard, Customs is strategically located at the frontline as a 'first defence,' or as a 'last control.'

In addition, Customs has holistic knowledge and expertise in dealing with the legal transboundary movement of goods, as well as with illegal, or illicit trade and the actors involved. Global information and intelligence exchange networks are in place through which information, risk data, and intelligence are disseminated, and where infringements occur, Customs has the power to undertake physical controls, such as detentions, investigations, and seizures.

In light of the above, it is imperative for Customs administrations to consider the gravity of environmental crimes, and ensure that such crimes receive the strategic recognition and operational attention that they deserve. Turning a blind eye to the myriad environmental threats that we face should not be an option, and it is requisite to reconsider what Customs can do in order to bring about a better environmental future for all.

Interested readers may obtain source references relating to this article from the author, or the WCO Communications Service.

### More information

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## Big decisions made at the 2016 CITES global wildlife summit

**Pangolins:** Conservationists warned of the devastating decline in pangolin populations. CITES followed up by putting all eight pangolin species, 4 found in Africa and 4 found in Asia, into Appendix I.

**Grey parrots:** The African grey parrot, heavily sought after for the pet trade, was moved to Appendix I. The birds are hugely popular around the world as pets, but their numbers in the wild have dwindled, with Ghana estimated to have lost 90-99% of its wild population.

**Rosewood:** The explosion in demand – the market has grown by 65% since 2005, and is now worth 2.2 billion US dollars per year – is having a devastating impact on the forests in South-East Asia where the rosewood tree grows, and traffickers are now looking for sources in Africa and Central America. By a consensus decision, the CITES conference placed all 300 types of rosewood under Appendix II.

**Rhinos:** A proposal from Swaziland that would have allowed it to sell its 330 kg stockpile of horn in order, it said, to use the money to help support rhino conservation work, was rejected.

**Lions:** A motion to ban all trade in lion parts was defeated. The trade in wild lion parts will continue to be prohibited, but the hoped for ban on trade in captive lion parts did not materialize.

**Sharks and rays:** A decision was taken to place all nine species of devil ray, three thresher shark species, and the silky shark in Appendix II, resulting in international trade restrictions to ensure their exports are sustainable and legal.

**Elephants and ivory markets:** There was no change with respect to African elephants. Most populations remain in Appendix I, while the populations of Botswana, Namibia, South Africa, and Zimbabwe remain in Appendix II. However, a unanimous resolution was passed calling for the closure of all domestic ivory markets "that contribute to illegal trade and poaching." China later announced plans to close down its own domestic market.



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## Project INAMA: situation analysis and first

Launched in October 2014, the INAMA project aims to strengthen the enforcement capacity of Customs administrations in Sub-Saharan Africa, while focusing on the illegal trade in wildlife, particularly on species listed in the appendices of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).

THE CONVENTION REGULATES international trade in CITES-listed animals and plants, and this involves addressing both legal and illegal trade. For domestic or international trade in wildlife to be described as illegal or as ‘illicit wildlife trafficking,’ which is often used to refer to illegal trade, it must contravene either domestic or international law, or both.

Effective application of the CITES Convention depends largely on control

over the issuance, inspection and acceptance of CITES documentation, as well as detecting wildlife that is being traded illegally.

The INAMA project’s capacity building activities are organized into three components:

- Institutional and organizational development – participants assess their own capacity building needs at the national level, and this assessment

is followed by scoping missions. The objective being to provide participating countries with tailor-made support on the basis of the findings of these missions;

- Intelligence – participants follow basic and advanced training on intelligence to improve their capacities in all the relevant phases of the intelligence cycle, namely the collection, evaluation, collation, analysis, dissemination and re-evaluation of data, as well as on advanced intelligence analysis principals, tools, and techniques. A selected group of Customs administrations are provided with additional support to strengthen their intelligence function;
- Enforcement – participants learn through practical courses to plan and conduct enforcement operations, as well as to manage investigations through the use of a wide range of techniques, such as the conducting of controlled deliveries.



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Based on the results assessment made by each participating country, the situation appears to be rather gloomy. However, the positive feedback received from the more than 120 officials who have been trained under the scope of the project gives hope that crucial progress may be made in the near future.

generally do not use those enforcement modalities.

#### **Risk assessment practices and technologies**

Fifty per cent of the administrations do not have an intelligence unit in place, and none of them have Intelligence officers dedicated specifically to CITES issues. There is also a general lack of CITES risk indicators, and a recognized weakness in the development and dissemination of risk profiles covering CITES shipments. In fact, CITES related items do not appear in the risk register of at least one half of the administrations.

#### **Inter-agency cooperation**

Fighting wildlife crime requires concerted efforts involving the pooling of financial, human and information resources. Sharing intelligence, especially, is a critical prerequisite to effectively fight the phenomenon. However, the level of inter-agency cooperation is still weak, and most of the countries do not have a specific multi-agency enforcement team in place.

Moreover, only a few administrations have been involved in joint exercises with other Customs administrations, such as global enforcement operations targeting illicit wildlife trafficking, although such exercises could help them to develop information networks and improve their risk indicators.

#### **Corrupt practices**

A number of CITES-listed species are high-value items targeted by organized crime groups, and this makes the officers responsible for regulating trade in these specimens vulnerable to attempts to corrupt them. It has been generally recognized that there is a lack of incentive to officers based at border posts to avoid exposure to corruption,

and a lack of a suitable vetting process during staff recruitment.

Although fighting corruption is not a focus of the project, discussions are held with participating officers on efforts that should be made to mitigate the risks of corruption in the trade chain, and to ensure that adequate integrity policies and procedures are in place in national government structures to prevent organized crime groups from corrupting officials.

#### **Controls focusing on imports**

Revenue collection is the priority of most of the participating administrations. Thus, more emphasis is placed on the control of imports, leading to a much lesser allocation of resources to the control of exports. This reality poses a serious issue as these countries are wildlife range countries, with the illegal trade in wildlife occurring at both export and transit levels.

#### **Capacity building activities implemented**

Based on the results assessment made by each participating country, the situation appears to be rather gloomy. However, the positive feedback received from the more than 120 officials who have been trained under the scope of the project gives hope that crucial progress may be made in the near future.

At the regional and sub-regional levels, 11 training sessions and workshops have been held so far:

- one on the controlled delivery of illegally traded wildlife products;
- two on basic intelligence;
- two on advanced intelligence;
- two to develop and validate the Institutional Assessment Tool on the enforcement of the CITES Convention;

## results

### **Infrastructure, legal capacity and know-how**

All countries participating in the project are Contracting Parties to the CITES Convention, but awareness of the Convention's provisions and of wildlife issues in general is rather low among officers who, in most countries, do not clearly understand their role in wildlife preservation.

Unfortunately, the enforcement of the CITES Convention is not a priority in several participating countries and does not feature in the strategic planning process of most of them, and Customs administrations face the challenge of weak government support for their role in fighting the illegal wildlife trade.

As a consequence, although most administrations have the legal power to conduct investigations into the illegal trade in species regulated by the CITES Convention, with only a few of them having the legal power to conduct controlled deliveries in this domain, they

- one on cross-border cooperation and coordination;
- two focusing on investigations;
- one on enforcement operations planning.

Support was also provided at the national level. Uganda received technical assistance on evidence handling and seizures. This assistance was delivered by WCO experts working under the COPES project, which focuses on the working methods used to combat fraud, from the identification of an offence to the storage of seized assets, including reporting, collecting and preserving evidence.

Moreover, Malawi and Zambia received support in strengthening their intelligence functions, and an exchange of personnel between the Customs administrations of China and Kenya as well as between China and South Africa was organized with the aim of strengthening cooperation between officers, which could facilitate the conducting of controlled deliveries in the future.

#### First results achieved

The project makes reference to several performance indicators as follows:

- increase in the number of seizures of illegally traded wildlife products;
- increase in the number of wildlife crime cases brought to justice through the efforts of Customs officers;
- at least 15 participating administrations to have completed the self-assessment;
- increase in the amount of information related to illegally traded wildlife products shared with other administrations through the WCO CENcomm communication platform;
- at least 3 out of the 25 participating administrations to have developed a work plan by 2017 on how to establish an intelligence unit.

So far, 13 Customs administrations have completed their self-assessment, and two

have drafted an intelligence framework and a work plan to strengthen their intelligence functions.

Some officers have also started sharing information about seizures occurring in their countries, such as in Burkina Faso where 26 pairs of elephant tusk, en route to Côte d'Ivoire in a bus, were found and seized in January 2017 by the mobile Customs unit.

Some of the performance indicators will only be able to be measured at the end of the project. More time will also be required to achieve some of the expected results, which might only be realized after the project completion.

As with many capacity building projects, the main challenge to overcome is always ensuring the sustainability of the results already obtained and those to come.

#### More information

[capacity.building@wcoomd.org](mailto:capacity.building@wcoomd.org)

## INAMA at a glance

### Objective

To address the illegal trade in endangered species by improving Customs officers' capacity to enforce CITES regulations.

### Duration

5 years (2014-2019)

### Expected results

- Customs administrations:
  - increased capacity to conduct an analysis of their enforcement needs, and to measure their performance in terms of enforcing CITES regulations;
  - Implement new tools and enhance new structures, enabling their officers to better enforce CITES regulations.
- Customs officials:
  - enhanced awareness and knowledge of CITES regulations, and how to enforce them, in particular when it comes to conducting operations and controls;
  - increased capacity to collect, process and disseminate intelligence.

### 25 Participating countries\*

Angola, Benin, Botswana, Burkina Faso, Central African Republic, Cameroon, Congo (Republic of the), Côte d'Ivoire, Democratic Republic of the Congo, Gabon, Gambia, Ghana, Kenya, Malawi, Madagascar, Mozambique, Namibia, Nigeria, Rwanda, South Africa, Tanzania, Togo, Uganda, Zambia, and Zimbabwe.

*\*Countries in Asia will participate in specific activities of the project, and additional countries in Africa are expected to join the project.*

### Funding partners

Sweden, the United States Department of State, the German Federal Enterprise for International Cooperation (GIZ), and the Secretariat of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).

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# Customs, playing a key role in protecting the ozone layer and mitigating climate change

By Dr Ezra Clark,

OZONACTION, ECONOMY DIVISION, UNITED NATIONS ENVIRONMENT

THE MONTREAL PROTOCOL ON Substances that Deplete the Ozone Layer has been in the news a great deal recently. This is something quite unusual for a 'lesser known' convention. But how has this landmark environmental treaty, which some see as the most successful international agreement of any kind, managed to effectively halt the destruction of the ozone layer as well as making a huge contribution to combatting climate change? Dedicated and vigilant Customs officers – that's how.

The stratospheric ozone layer is the thin layer of the atmosphere that protects life on earth from harmful ultraviolet radiation from the sun. The objective of the Montreal Protocol is to protect human health and the environment by phasing-out the production and consumption of nearly 100 industrial chemicals known as ozone depleting substances (ODS), which

include chlorofluorocarbons (CFCs), hydrochlorofluorocarbons (HCFCs), halons, methyl bromide, carbon tetrachloride and methyl chloroform.

Under this treaty, developing and developed countries have equal but differentiated responsibilities with both groups of countries having binding, time-targeted, and measurable commitments. The Montreal Protocol has been ratified by 197 Parties, making it the first universally ratified treaty in the history of the United Nations (UN). The treaty has been successful in phasing out more than 98% of ODS, and it is expected that as a result the ozone layer will recover to its pre-depletion levels by around 2060. In addition, due to the phase-out of ODS, many of which are powerful global warming gases, the Montreal Protocol lowered greenhouse gas emissions by the equivalent of about 11 gigatonnes (11 billion tonnes) of carbon dioxide per year – a truly huge contribution to protecting the earth's climate.

## Ensuring success

When those familiar with the Montreal Protocol consider the work of Customs officers in relation to this environmental convention, what may first come to mind is the central role they play in the detection and prevention of the illegal trade in ODS. Smuggling of CFCs, HCFCs and other ODS has been a significant problem which threatened to undermine the success of the Protocol, but significant seizures of these chemicals by Customs officers around the globe regularly hit the headlines. It has been estimated that in the early 2000s, the illegal trade in ODS represented around 10-20% of legitimate trade, with an approximate value of between 25 and 60 million US dollars a year [[http://ozone.unep.org/Meeting\\_Documents/mop/18mop/ODS-Tracking-September-2006-1.pdf](http://ozone.unep.org/Meeting_Documents/mop/18mop/ODS-Tracking-September-2006-1.pdf)].

Important though this work on illegal trade is, to focus only on this part of the function of Customs would be to neglect the arguably more important, but perhaps less visible work of Customs, which is fundamental to the success of the Montreal Protocol – the day-to-day work of monitoring and reporting trade data on which a country's compliance with their commitments under the Protocol is based. While the Protocol deals with the production and consumption of ODS, in reality, this 'consumption' is not measured in situ, but is calculated from countries' ODS import, export, production, and destruction figures.

It is clear that to ensure accurate and timely reporting it is essential to have detailed and accurate import and export data, which is the domain of Customs. They must also ensure, by working closely with the designated national authority, that imports and exports of ODS are only allowed to proceed according to the national ODS licencing system and associated import and export quotas for each specific controlled substance. One of the requirements



The Parties to the Montreal Protocol applaud the historic decision to phase-down the production and consumption of hydrofluorocarbons (HFCs), which are powerful climate change gases.

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of remaining in compliance with the Montreal Protocol is timely annual data reporting, and another is ensuring that a country's imports and exports remain within the agreed ODS phase-out schedules. Both these requirements would not be able to be fulfilled without dedicated Customs officers.

### Providing support

OzonAction, a branch of United Nations Environment, assists developing countries and countries with economies in transition to achieve and sustain compliance with the Montreal Protocol. One of its priority areas of work is to provide capacity building support to Customs and other enforcement officers to assist them in their work. For this reason, OzonAction has developed a dynamic configuration of 10 regional networks comprising 147 developing countries, supported by staff located in regional offices who interact closely with these countries on a daily basis.

The regional networks provide a regular, interactive forum for officers in National Ozone Units – country representatives responsible for the implementation of the Protocol – to exchange experiences, develop skills, and share knowledge and ideas with colleagues from both developing and developed countries. These networks also provide a platform for interaction with, and the training and capacity building of, Customs and enforcement officers. The networks are considered a cornerstone in the success of the Montreal Protocol.

### Phasing down HFCs

After more than seven years of intense and sometimes difficult negotiations, the historic decision taken by the Parties to the Montreal Protocol in October last year in Kigali, Rwanda which hit the headlines was that they had agreed to phase down the production and consumption of hydrofluorocarbons (HFCs) also. To appreciate the significance of this agreement, one needs to reflect on the fact that this is a treaty dealing with ozone depletion, addressing a group of chemicals which are not ozone-depleting.

The 'Kigali Amendment' will require all countries, both developed and

developing, to phase down HFCs following various specific schedules. These chemicals are commonly used alternatives to ODS, and while not ozone depleting substances themselves, they are greenhouse gases which can have high or very high global warming potentials (GWPs) – about 121 to 14,800 times more powerful than carbon dioxide in causing climate change. It has been estimated that this agreement will help nations avoid up to 0.5° Celsius of global warming by 2100, which very much continues the historic legacy of the Montreal Protocol.

However, the work to achieve this target is all still to be done. Once again, Customs officers will be called upon to play their indispensable role. It will soon be necessary to monitor and control the trade in HFCs as the import and export of these substances comes under regulation, and quotas are issued. It will be necessary to identify and distinguish HFCs from their alternatives and other chemicals. The latest edition of the Harmonized System (HS) released in 2017 does not include specific codes for HFCs, but they are expected to be included in the 2022 edition. This may present a particular challenge as countries are required to establish working licensing systems for HFCs by 2019, although controls for developing countries do not follow this for some years.

### Continuing cooperation

For many years, OzonAction and the WCO have collaborated on developing and deploying innovative information material and training tools, such as e-learning modules which are available on the WCO CLiKC! Platform, and cooperated in the carrying out of enforcement operations and intelligence-sharing exercises that have specifically targeted the illegal trade in ODS. These actions have cemented the strong ties between OzonAction and the WCO at the international level, while having a positive impact at the national level.

OzonAction currently has projects in some 100 developing countries. These projects include support for Customs officers, by way of capacity building, training and the provision of information



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The import and export of ozone depleting substances is already controlled under the Montreal Protocol, however, hydrofluorocarbons (HFCs) such as R-410a (pink cylinder) will soon be subject to trade controls as a result of the 'Kigali Amendment' to the Protocol.



© Ezra Clark

UN Environment's OzonAction branch has provided training and capacity building to Customs officers for many years on the implementation of the Montreal Protocol, including training on the use of ozone depleting substance identifiers.

material. By ensuring that Customs and enforcement officers on the frontline are well informed about these new chemicals and remain vigilant, United Nations Environment is confident that the success of the Montreal Protocol will continue to be underpinned by the tireless work of Customs officers. Continued cooperation between OzonAction and the WCO will support this even further.

### More information

[www.unep.org/ozonaction](http://www.unep.org/ozonaction)

# Facilitating trade against a backdrop of security threats: the Tunisian experience

**By Mourad Arfaoui,**  
CAPACITY BUILDING DIRECTORATE,  
**and Thomas Cantens,**  
RESEARCH UNIT, WCO

AT THE END of June 2016, a group of WCO experts went to Tunisia as part of a research programme on barriers to trade facilitation with a particular focus on potential obstacles linked to the implementation of the World Trade Organization's (WTO's) Trade Facilitation Agreement (TFA). The WCO-led programme is being carried out in a number of countries, with support from the Korea Customs Administration.

The experts were particularly interested in the way in which Tunisian Customs officials perceive trade facilitation, the measures already in place to facilitate trade, and any barriers to trade facilitation – one of the most significant being security-related issues of increasing concern on the ground.

For several years now, Tunisia has witnessed a series of violent attacks perpetrated by armed groups or individuals. The attacks carried out at the Bardo Museum in Tunis (March 2015), in a hotel in Sousse (June 2015), and in Ben Gardane (March 2016) received a considerable amount of media coverage given the scale of the attacks. According to the Armed Conflict Location & Event Data (ACLED) academic project, over 50 violent armed attacks were recorded in Tunisia in 2016, killing 105 people, two of which were Customs officials.

The security situation remains difficult, particularly in the city of Ben Gardane (a trade hub where both formal and informal trade flows cross the border between Tunisia and Libya), evidenced by the following incidents:

- August 2015 – an armed group claimed responsibility for an attack against a Customs patrol, killing one Customs official;

- 19 November 2015 – a Customs patrol at the border outpost of Sidi Toui (50 km south of Ben Gardane) apprehended three terrorists who were trying to enter Tunisia from Libya illegally;
- March 2016 – an armed group claiming to be part of the Islamic State group (designated a terrorist organization by the United Nations) entered the city of Ben Gardane, killing several people, including a Customs official and a police officer, and tried to create a people's uprising against the central government, and in particular against Customs officials, whom they accused of threatening informal trade, the biggest source of revenue for the region.

The WCO experts carried out a number of individual and group interviews with Customs officials and operators in the informal trade sector. They also carried out onsite visits at the port of Radès, Tunis-Carthage airport, the Ras Jedir border post on the border with Libya, in goods warehouses in Ben Gardane, and at the outposts of El M'guissem and Sidi Toui on the border with Libya.

This article briefly lays out the initial analysis carried out by the experts and the potential areas of work, which, in their opinion, would enable Tunisian Customs to develop policies to ensure a balance between facilitation and security, taking into account their specific environment, priorities and means, and not necessarily based only on outside recommendations.

## **Facilitation: a concept firmly rooted in working culture**

The majority of senior Customs officials that the WCO experts met with stated that they were highly aware of the facilitation aspect of their job. Trade facilitation as a concept is visibly anchored both in the representations and working culture described by senior

officials. Technical and procedural measures have been put in place in order to facilitate the treatment of trade transactions:

- less time-consuming procedures for perishable and flammable goods (release in under six hours);
- an electronic Single Window for submitting documents accompanying a Customs declaration (used in 90% of operations);
- an automatic selectivity programme with centralized risk management in place at Customs' headquarters;
- the possibility of making a Customs declaration without using an authorized Customs broker (option used in less than 10% of Customs declarations);
- the possibility for certain operators to submit an advance Customs declaration (request for authorization to remove goods – under 10% of cases)
- an authorized economic operator (AEO) programme (very stringent selection criteria, with 24 authorized operators at the airport)
- the use of non-intrusive inspection equipment;
- deferred inspections for Customs declarations.

The officials that were interviewed recognized the need to take measures to strengthen trade facilitation policy, including:

- simplifying Customs procedures;
- improving the current Customs IT system;
- overhauling the risk management policy by updating the risk indicators;



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The Zokra souk at Ben Gardane: warehouse stores displaying goods line the road leading to the border.

- improving coordination between the different stakeholders at the border (Customs, police, agricultural authorities, health authorities, certification bodies, etc.);
- improving information sharing between headquarters and local units on the ground in order to ensure that facilitation policy is turned into concrete measures and actions – adopting the WTO TFA should involve running an awareness campaign for staff on the ground who, while they know of the Agreement, do not have a good understanding of all its provisions.

#### Procedures and security measures at different border posts

While all senior officials interviewed (at the port, the airport, and the border with Libya) did express their willingness to facilitate trade, it is clear that trade facilitation cannot take the same form at all border posts.

##### *Port of Radès*

According to senior Customs officials, since 2003 security measures have been stepped up at the port of Radès through which a large majority of

Tunisia's foreign trade transits: the surveillance unit has been bolstered; a canine unit is now up and running; a video surveillance system has been put in place (74 cameras); there is a plan to install new scanners (4 to 6 scanners); and staff are being trained to use the scanners to detect weapons.

Rolling out such additional measures, however, has not involved any overhaul of procedures. The security controls have simply been added to the administrative procedures already in place: the majority of cargo is released “immediately” after being scanned on leaving the port; and the canine team is used systematically to inspect personal effects.

Here, facilitation is understood to mean minimizing delays. As such, security-related obligations, particularly the use of scanners, can lead to differing viewpoints between experts from international organizations, whose main concern is to ensure that a standardized approach to Customs procedures is followed (risk analysis, reduce inspections to a minimum, etc.), and Tunisian Customs officials, for whom there is a lot riding on security, both at a national and personal level.

At a national level, any action by an armed group would have disastrous economic consequences. While at a personal level, any Customs official having dealt with an import in which the means to carry out an attack were concealed would be subject to scrutiny, and serious doubts would be raised about their integrity in an environment where corruption is taken as a given. It is clear then that certain Customs officers do not want to take any risks, both in order to protect society as a whole, but also in order to protect themselves in the case of poor targeting.

##### *Tunis-Carthage airport*

At the airport, the main objective of Customs staff is to facilitate trade and no exceptional security measures appear to have been taken, apart from the systematic non-intrusive inspection of parcels sent by post or express courier. Physical inspections at shop exits is a measure that has been in place for years. This can be explained by two factors which are quite common in airport environments: first, a major objective of air freight is the speed with which operations are completed; and second, airports have traditionally been sensitive to security concerns.

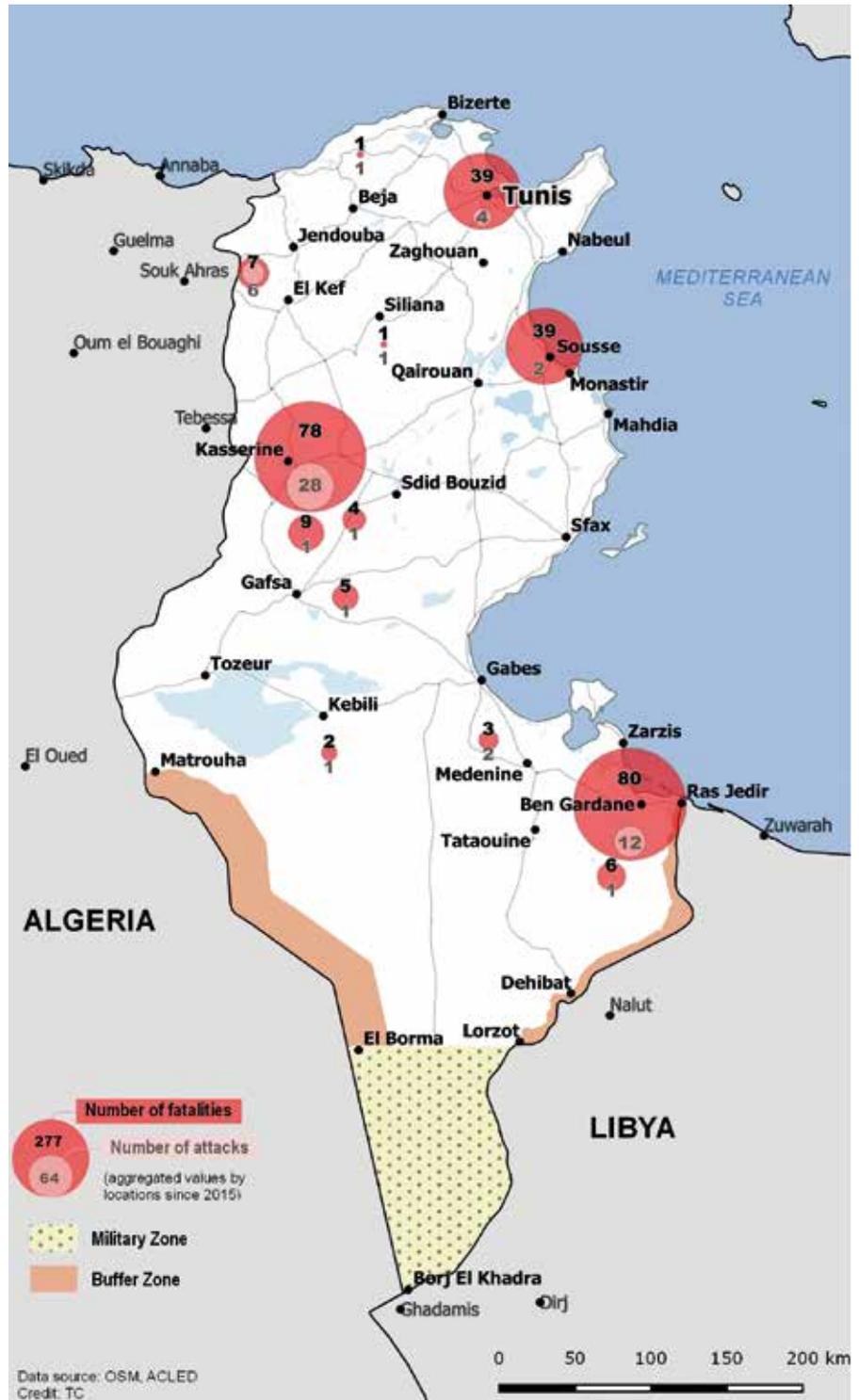
**Ras Jedir border post**

At the south eastern border, the collapse of the Libyan state means that the issue of border security and the fight against smuggling is even more pressing here. In response to such threats, buffer zones under high military surveillance have been set up in the south of the country, a largely desert area, situated between Libya and Algeria. Access to the area is possible through a few crossing points, but only with authorization from the military. The northern border of the buffer zone is in a place called Matrouha to the west, on the Algerian side, and to the east, on the Libyan side, and is situated at the Ras Jedir border post where the WCO experts travelled to.

At the Ras Jedir border post, armoured (anti-tank) gates have been installed to allow the border to be closed in an emergency. Special lighting facilities make the border point operational 24 hours a day: watchtowers outside the crossing point allow movements on the Libyan border to be monitored, to forewarn of any unforeseen activity by armed groups or large movements of refugees. The number of staff has been increased to 260 Customs officers, each equipped with their own personal weapon. In addition, an armed response unit made up of Customs officials and the National Guard is ready to move on orders from the head of office.

Two joint meetings are held every month to ensure coordination between Customs and the security forces, and emergency action plans have been put in place to ensure coordinated efforts in the event of a problem (terrorist act, influx of refugees, etc.). This is done with the aim of guaranteeing border security. Passengers arriving in Tunisia are scanned systematically, the main objective being to detect any weapons.

At the border outpost of El M'guissem, as at other border outposts where government forces that control the areas between border crossings are based, Customs officers play a purely surveillance role, but do so in very challenging conditions (climate, housing, water and power sources, communication by radio only, etc.). Although the number of seizures is



Overview of armed attacks recorded in Tunisia since 2015. The 40 km border strip condenses more than 50% of the violence although it only represents 30% of the territory.

relatively low, the intelligence aspect is an important one, particularly as officials have contact with the nomadic communities.

At Ras Jedir, as at other posts on the border with Libya, the notion of trade facilitation takes on a very specific dimension. It is cross-border trade that sustains the region, and facilitating trade singles out the State as a player in the governance of such fragile regions. In addition, as in other areas affected by

insecurity, the ability of an organization (be it the State or a militia) to enable trade across the zone is an indicator to the population of its ability to govern.

As such, the Tunisian State, and in particular Customs, plays an important role in negotiating with Libyan authorities. Any Libyan measure (blocking the release of goods, seizures, taxation, etc.) that has a negative effect on Tunisian traders (mostly informal), couriers or transporters elicits a strong

response from the latter on the Tunisian side (roadblocks, strikes, damage to means of transport, etc.).

Thus, it falls to Tunisian Customs to resolve the disputes in part. This role, specific to Customs, is necessary in order for the Tunisian State to keep the peace in society, and to retain the support of the population. The role of Tunisian Customs officials is further complicated by the fact that sometimes they have no established, professional Libyan counterpart.

### Guaranteeing the smooth flow of trade at the border by making Customs part of the security apparatus

Generally, despite the insecurity, Tunisian Customs is present at the border with Libya and plays an active role in the security apparatus. The situation in Tunisia is an interesting one as Customs has been able to reinstate its authority at the border after the border fell under military rule. This can be held up as an example that could be followed by other Customs administrations working in a fragile or insecure area.

On the basis of the Tunisian experience it can be said that making Customs, the only authority able to guarantee the smooth flow of cross-border trade, part of the security apparatus involves a number of elements:

- i) willingness by the central authorities to take into account the economic importance of the border;
- ii) local Customs officers' ability to send quantitative data, including data on seizures, back to the central authorities;
- iii) the same means of force (weaponry, means of surveillance, etc.) as other security services;
- iv) an understanding of local issues linked to cross-border trade by Customs officers who support commercial activity in the region in which they work.

On this last point, it should be noted that Customs officers, and probably the security forces as well, are well aware of

It should be noted that Customs officers, and probably the security forces as well, are well aware of their "social" role, and that they have not adopted a purely repressive approach to the trafficking of "legal" goods, other than weapons and drugs.

their "social" role, and that they have not adopted a purely repressive approach to the trafficking of "legal" goods, other than weapons and drugs.

Appointing Customs officials that come from the region, applying more or less flat-rate taxation to small shipments, having border outposts that foster good relationships with the nomadic communities, and looking to take down the "big" smugglers (thereby breaking up monopolistic situations and allowing a greater number of "smaller fish" to do business) are all measures which, although technically simple, help to contribute to social peace, and encourage a favourable relationship between the population and the repressive apparatus of the State.

### Food for thought

This WCO mission's objective was not to run any diagnostics or to draft recommendations, but rather to make proposals with the aim of strengthening the position of senior Customs officials, and helping them to come up with a Customs policy that will ensure a balance between facilitation and security, taking into account the environment, priorities and means of the Tunisian Customs Administration, and one which would not necessarily be developed only in response to external recommendations. The proposals included:

- *Organizing a debate on the possibility of establishing quicker and more reliable import, export or transit procedures at the border which would take account of current security challenges.*

- *Carrying out a quantitative study on the delays caused by security checks, particularly the scanner. It is highly likely that the delays linked to security checks, caused by the time taken for goods to be scanned, for example, are actually quite minor in comparison to the time it takes to get through the port. This type of quantitative study can demonstrate that security measures are compatible with facilitation.*

- *Adapting the anti-corruption policy to the security role. Corruption becomes a different issue as Customs plays an increasingly security-orientated role. On the one hand, by definition, terrorism-related fraud is a rarity in comparison to commercial Customs fraud. On the other hand, the perception that Customs is corrupt weighs heavily on non-corrupt Customs officials who cannot afford to take any risks when it comes to security checks: if a shipment to an armed or terrorist group is not checked, then the Customs official in charge would immediately be suspected of corruption, but if a risk-based security check procedure is in place, then a legal mechanism is needed to protect Customs officials. By the same token, an assessment system should make it possible to monitor the daily practice of Customs officials.*

- *Organizing a global seminar for senior officials in order to promote the development of in-house policies and techniques as well as better negotiations with external partners. Senior Customs officials do benefit from external expertise and training, particularly on facilitation instruments. The experience of Customs at the border post with Libya, however, shows that it is in the interests of each administration to develop its own solutions locally and show flexibility, both administratively and intellectually, in order to better understand and tackle problems. Moreover, the Customs officials that were met all showed a real desire to engage with the Customs strategy. It may also be interesting to note that Tunisian Customs organizes a seminar*

for its senior officials on topics of global interest relevant to Customs (facilitation, competitiveness, security, terrorism, corruption, tax, etc.) in order to encourage them to develop their own ways of thinking, and strengthen their negotiating skills for dialogue with foreign and international partners. This type of seminar, which is organized regularly, is both a platform for exchange and a source of motivation for senior officials.

- *Organizing a workshop on Customs enforcement techniques in a desert environment.* Different Customs administrations can share their experiences which would provide opportunities for perfecting border control strategies for such settings. It could be interesting to address the opposing concepts of managing the border like a “line” to defend and control through the use of a network of

border outposts on the actual border, and managing the border as a series of cross-border “flows” to be controlled through surveillance concentrated at trade hubs where such flows meet.

- *Carrying out a study of the “business model” of the various players involved in smuggling, across a number of flows of goods.* Smuggling and the informal sector are supposed to provide goods at a low price to the poorest of the population. In order to assure the social function of smuggling, Customs agrees to apply advantageous fixed-rate tariffs to certain flows of goods, though there is a lack of data on this type of trade. It would be useful to know which actors along the value chain make the most profit. If it turns out that certain individuals are making significant profit, and that the quantities imported are grossly under-valued, a quantitative study would put Customs in a better position

to negotiate with operators from the informal sector, making it easier to justify a change in fiscal policy.

- *Carrying out a study on the links between smuggling and terrorism.* It would be useful to study the transition process from one network to the other: how might couriers or smugglers become part of a terrorist network? What are the motives? How does it happen?
- *Carrying out a study into the role of Customs at local level.* The Tunisian experience, and this has been seen in other countries too, shows how important it is for Customs to participate in local government, as well as how important their role is in getting the population to contribute to ensuring their own security.

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# Racing ahead: the United States transforms its trade processes to compete in the global economy

**By Marcy Mason,**

A WRITER WHO COVERS TRADE FOR US CUSTOMS AND BORDER PROTECTION

OVER THE LAST five years, the global economy has been changing. Consumers are buying more goods online, e-commerce is flourishing, and supply chains are moving at a breakneck speed. At the same time, the number of trade agreements is growing, and countries are increasingly more focused on regulations, supply chain security, and the movement of cargo across their borders.

For US Customs and Border Protection (CBP), the effects have been staggering. “Everyone wants everything now. You order something online today; you want it at your home tomorrow,” said Todd Owen, the Executive Assistant Commissioner of CBP’s Office of Field Operations.

But with speed and immediacy come logistical challenges. The number of shipments entering the United States (US) by air, rail, truck, and sea is rapidly increasing, especially by air. In 2015, CBP inspected more than 275 million parcels at express courier hubs and international mail facilities.

Cargo coming into the US through other modes of transportation was also high. “In the last five years, the economy has grown much stronger, so we are seeing the benefits of that,” said Owen. “Trade is up, e-commerce is going through the roof, and we have far more shipments coming into the US. The numbers are huge. But that also increases our workload and our staffing has struggled to keep up.”

CBP realized that the changes had a direct impact on the US economy and the ability for American businesses to compete globally. “We don’t want to be a roadblock,” said Owen. “We want to make sure that we meet our security



A crane unloads one of the millions of cargo containers that arrive in the US from around the world each year.

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concerns, but to do so in a way that allows the economy to continue to prosper.”

As a consequence, over the last few years, the agency has been transforming its processes to increase efficiency, and to make CBP more nimble as a Customs organization so the country would not be left behind.

When CBP was formed in 2003 as part of the newly created Department of Homeland Security, it was an outgrowth of the events of 11 September 2001, and its primary focus was protecting the US from terrorism. This was a major shift from the agency’s roots as the US Customs Service. “Our traditional mission of facilitating and enforcing trade was not as strong as it had previously been,” said Brenda Smith,



A CBP officer inspects a bag of international mail as it arrives at Los Angeles International Airport.



Shipments of parcels being inspected at the DHL facility by CBP officers at John F. Kennedy International Airport.

the Executive Assistant Commissioner of CBP's Office of Trade.

But by 2010, things started changing. The worldwide recession; several new trade agreements; and a significant growth in e-commerce, where goods are bought and sold easily over the Internet, prompted CBP to elevate trade. "We took a look at the strategic gaps in how we were conducting our trade mission," said Smith, a chief architect of the transformational plans.

One of the obvious findings was that the government was not conducting business in the same way as industry. "We weren't operating at the same speed or technology level," said Smith. "We were still stuck in the 20<sup>th</sup> century. There were a lot of things that we had oversight over that hadn't kept up with the times. Business was moving very quickly to modernize supply chains, to use technology and to use information, and we weren't there."

A major sticking point was paper. "Our trade processes were very cumbersome because everything was done with paper," said Smith. But it was much more than that. "It's not just getting rid of the paper. It's actually using the information in those documents to make decisions. We didn't have the visibility or the tools to do that," said Smith.

CBP identified significant gaps in other areas. For example, importers were not

viewed as accounts. "We were still at the transaction level," said Smith. "Every time we dealt with a company, even if the company had an excellent track record and we had dealt with them many times before, we looked at the company as if we had no idea who they were. It was slowing us down, and when we made our decisions about the risk of a particular transaction, we didn't consider all of the other information that we knew about the company. So importers couldn't bring their goods into the US quickly. We were holding their goods, trying to decide if they were safe to let into the country," she said.

It soon became apparent that CBP needed to collaborate with the trade community to get a fresh perspective. It was not something that had typically been done. "We recognized that if we brought the trade community to the table to work with us, we could both benefit," said Smith. "Not only could they help us define what the problems were, they could help solve what was slowing things down, and making us less efficient. It would save time, drive the economy, and better protect the American consumer."

#### Automating processes

Automation was at the heart of CBP's transformation efforts. "So much of what we do is driven by data, it's essential that our trade processes are automated," said Smith. The agency began automating its cargo processing system during the

early 1980s, when the legacy US Customs Service built the Automated Commercial System.

Significant progress was made, and in 1993, the Customs Modernization Act was passed, which gave legal authority to develop the next generation of automation. Starting in the mid-1990s, plans were made for a new cargo processing system, the Automated Commercial Environment (ACE). ACE was intended to help the US government collect duties, analyse and assign risk, and process international shipments coming into and going out of the country.

Development of the new system was slow because of multiple challenges. "It was a constantly changing environment," said Smith. "It was no longer just about collecting revenue. We had to be able to identify and manage terrorism threats, import safety threats, and ensure compliance with free trade agreements, which have exploded over the last 10 years. At the same time, we were building the automated systems under some very challenging budget constraints."

But over the last four years, there has been a dramatic turnaround. Buoyed by the strength of political support, additional funding, and a herculean effort by those involved, ACE has catapulted to near-completion. Working in concert with a host of other initiatives, CBP's system has begun to shine. "ACE has given CBP

the ability to look at information on shipments nationwide,” said Heidi Bray, the Manager of US Customs Compliance at Fiat Chrysler Automobiles, one of America’s top three auto manufacturers. “That helps us because we use ports all over the country.”

“When I started doing Customs work almost 30 years ago, it was all paper-driven and you had to plan ahead. It was hard to get something shipped in or out of the country without there being a slowdown at the border,” said Bray. “We have plants in Canada, so we have a lot of suppliers that cross through Detroit. It’s a major port for us, and when a driver has to hand a paper document to a CBP officer at the booth, it takes a lot of time,” she said. “In a just-in-time environment, we don’t hold a lot of our parts in the plant anymore. We don’t want to carry inventory costs. If we can bring those parts in, use them in production immediately, and not have

**If we’re going to compete, if we’re going to get goods into the country at a reasonable cost and expect to export to foreign markets, the government has to develop a more consistent, customerfriendly approach. CBP has done a great job with that. Now, it’s just extending it out to the rest of the government.**

to wait in long traffic lines at the border, that’s huge for us. The automation has helped us do that, and it really has had a positive impact.”

Another area that CBP tackled was simplifying processes, which has been a welcome relief for many importers and exporters. “There’s an increasing

complexity in global trade,” said Alexandra Latham, the Director of Customs Compliance at Costco Wholesale Corporation, an American membership-based retailer with warehouse stores in nine countries around the world. “When we purchase goods, they need to meet the regulatory requirements for all nine countries that Costco is doing business with.” But as Latham pointed out, it is costly. “The increased complexity in requirements makes it prohibitive for a business to continue to import goods. It drives up the cost for consumers,” she said.

CBP addressed the issue and found a way to simplify the process for goods entering the US. “We were asking for quite a bit of data to make decisions about whether goods could come into the country,” said Smith. “Over the preceding 10 years or so we had layered many new information requirements on top of each other, and we hadn’t figured



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out where there was duplication. So we sat down with representatives from the trade community and asked them how we could do this more efficiently,” she said. “They put some ideas on the table, and we listened.”

In the end, CBP found a way for importers to submit a simplified version of the required entry information earlier in the importing process. “It allowed us to let importers know early on if there was a problem with their cargo, so that they had an opportunity to fix it,” said Smith. “It also gave them a greater degree of predictability with their supply chains. Were we going to stop and inspect their shipments? If so, companies could make decisions about their inventories and their logistical movements.”

#### Industry centers

In 2011, CBP introduced the Centers of Excellence and Expertise, a sweeping, transformational change in how CBP worked with the trade community. Operating on a national scale, the Centers became the primary point of processing for importers within a specific industry. Today, there are 10 Centers, focusing on a range of industries including electronics, pharmaceuticals, automotive, petroleum, consumer products, apparel, and others. Staffed by experts who are linked virtually across the country, the Centers are based at locations strategic to the industries they serve.

The idea for the Centers was one of several suggestions proposed to CBP in a 2009 paper written by the congressionally mandated trade advisory committee, known as COAC. Most of the paper’s suggestions centred on a ‘management by account’ concept, which viewed companies as accounts rather than on a transaction-by-transaction basis, where each shipment was reviewed separately. The trade community believed that the account managed process would help products enter the country more quickly, and that there would be more predictability on when merchandise would be on store shelves.

“We interact with the Automotive & Aerospace Center in Detroit almost daily,” said Bray. “If we have delays at

any of the ports, they help us. The Center has visibility of all of our shipments throughout the country, which has been extremely beneficial to us.”

One of the Centers’ goals was consistency. “The lack of uniformity at the ports has been a huge complaint of the trade community,” said Bray. “We’ve had shipments that come in through a port and a Customs officer there will ask us a question. Then a week later, a different Customs officer at a different port will ask the same question. No one has time to answer the same question over and over again at different ports. It’s burdensome, and it’s costly for any business to duplicate its efforts,” she said.

“But the beauty is – now the Centers are addressing this. For Fiat Chrysler, the lack of uniformity has virtually been eliminated. They know us now. We’re treated as an account instead of having each of our transactions processed separately,” said Bray. “So, when we have shipments that come through Baltimore or Los Angeles or any other port and we need help with something, the Centers can go into ACE and look at the shipment, and help us troubleshoot. They give us guidance on what needs to occur in order to expedite the release of our goods.”

#### Single Window solution

Satisfying requirements for the multitude of regulating agencies is a major hurdle. “Even if CBP would say, ‘Your shipment looks good,’ one of 47 agencies with regulatory responsibilities could stop the shipment and tell us, ‘You can’t bring this into the country,’” said Bray.

The underlying problem is a lack of unity. “We see the inconsistencies across government agencies because we work with different cargo processing systems. Some still use paper and faxes,” said Ted Sherman, Senior Director of Global Trade Services at Target, one of the largest mass merchandizing retailers in the US, and importers of containerized freight.

“The fact that a company has to navigate 47 agencies to get goods into the US is very problematic and challenging. The



New Jeep Wrangler vehicles for export out of the US are loaded onto railway cars at the Fiat Chrysler Automobiles’ assembly complex in Toledo, Ohio.

way it’s been done historically will not work going forward. You can’t efficiently move freight across borders when you’re running the gauntlet of 47 agencies acting independently,” said Sherman. “If we’re going to compete, if we’re going to get goods into the country at a reasonable cost and expect to export to foreign markets, the government has to develop a more consistent, customer-friendly approach. CBP has done a great job with that. Now, it’s just extending it out to the rest of the government.”

One of the ways CBP proposed to solve the problem was to build an information system that enabled all of the agencies to view the information simultaneously. “We recognized that there really needed to be a guiding vision for the whole of government,” said Smith. “But, that was something that could not be driven solely by CBP. It needed to come from the government because it required the agreement and support of 47 different government agencies that had a stake in the project.”

The support came through in February 2014, when President Obama signed an Executive Order to streamline the US import/export process, creating a single window (SW) for businesses to electronically transmit the data required by the US government to import or export cargo. The new system would speed up exports of American-made goods, so that the US could



© Fiat Chrysler Automobiles

compete more effectively in the world marketplace. Completion of the SW system was set for December 2016 when the Obama administration ended.

In March 2014, CBP Commissioner R. Gil Kerlikowske took over the reins of the agency. He understood President Obama's vision, and within weeks reached out to industry to listen to their concerns. At the top of the list were worries about how other government agencies were going to implement the SW. The trade community was concerned that the agencies might start asking for more information. They also had concerns about how the timing of the new system would impact their supply chains and the economy. Furthermore, they questioned whether the system would be useful, and fit in with their operations.

"Because of his former position as the Director of the Office of National Drug Control Policy at the White House, Commissioner Kerlikowske was able to leverage his relationships to open doors for industry to have a better dialogue with the agencies implementing the project," said Maria Luisa Boyce, CBP's Senior Advisor for Trade and Public Engagement. "He asked the head of the Food and Drug Administration (FDA) and other agency chiefs if their agencies could meet with COAC to talk directly with industry about the changes that were needed to modernize the process so the new system would be successful."

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In 2015, when the FDA met with COAC, the discussion was fruitful. "We opened up more to industry about how we do things than I think we have ever done before," said Douglas Stearn, Director of the FDA's Office of Enforcement and Import Operations. "We talked about our struggles, and they gave us a lot of advice, a lot of recommendations to consider. Mainly what they wanted was more guidance and information about our requirements," he said. "We have endeavoured to do a lot more in that area, and within the SW effort, we have been extremely explicit about our requirements – probably to a greater degree than we have ever been before."

#### **Increasing exports**

Exports were another key area of focus. In 2010, shortly after President Obama launched a National Export Initiative to revitalize and promote American exports abroad, CBP asked COAC to help the agency improve the country's export process. From an industry perspective, members of the trade advisory committee mapped out the obstacles to a smooth, flowing process. Eighty were identified.

"We discovered that paper documents are a major reason that shipments are held up," said Julie Ann Parks, the Director of Global Trade Organization for the Raytheon Company, a defence, civil government, and cybersecurity firm headquartered in Waltham, Massachusetts. "As a defense company, most of the exporting challenges that we face relate to manual processes with licences."

For security purposes, the US Department of State regulates and issues licences for military-related shipments sent overseas. "Depending upon the licence type, we have to get paper documents signed by CBP before we can import and export shipments," said Parks.

"This can become very problematic and time-consuming in terms of logistics. For example, we've shipped cargo out of the port of Los Angeles, and then

brought the shipments back through the port of Phoenix because it made logistical sense. The paper licence needed to travel between the two locations before the shipments were signed-off. This is probably the biggest pain point in our industry,” said Parks.

However, all of that is changing. “The government is now using the SW to share licensing information between agencies,” said Parks. “It started in December 2015, and it was a beautiful thing.”

Efficient movement of exports is critical from an economic standpoint too. “It’s important that we keep commerce moving,” said Bray. “We have customers overseas and we need to meet their needs. We can’t do that if our parts and our vehicles are stopped at a port because Customs doesn’t know what we’re shipping out of the country, and they don’t have any information on us.”

“If we don’t meet a certain sailing schedule, then we have to wait another week or two until we can get space on another boat,” said Bray. “The bottom line is we need to compete economically. And, if we don’t have efficiencies in our supply chain, then it’s just not going to happen. If we can’t get goods out of the country to meet the demands of our global customers, then we’re not going to be able to compete, and they will buy cars from someone else.”

### Keeping current

CBP is also updating some initiatives. The Customs-Trade Partnership Against Terrorism (C-TPAT) programme is one of them. Launched in the wake of 11 September, C-TPAT was created in partnership with seven major companies to ensure that America’s supply chains are secure.

Internationally, the programme has had a significant impact, providing the world with supply chain security protocols. It also is the prototype for an “authorized economic operator (AEO),” or trusted trader programme that voluntarily works with corporate citizens to help ensure the highest degree of supply chain security.

Today, nearly 12,000 companies participate in C-TPAT voluntarily. Those who participate in the programme are considered low-risk and enjoy fast-track privileges at the US’s border crossings and ports. In return, companies which are certified by CBP must agree to enforce security throughout their supplier networks, provide a profile on the security measures their companies have in place, and undergo a risk assessment by CBP.

“We’re retooling the programme so that it stays current. There are a lot of factors that have changed throughout the years,” said Elizabeth Schmelzinger, CBP’s C-TPAT Director. “We wanted to make sure that the minimum standards are still relevant. We’re also restructuring the programme so that it’s more in line with the structure of other countries’ programmes that have security and compliance components.”

C-TPAT will also include exporters. “Our supply chain programme initially only focused on imports. Now, we’ve added other entities such as exports,” said Schmelzinger, noting the benefits this will bring. “We have agreements with countries that have similar supply chain security programmes. As part of those agreements, those countries will honour a commitment to our exporters who are low-risk,” she said. “What that means is that we will look at their trusted exporters less and they

will look at US trusted exporters less, in terms of inspections. Our goal is to create conditions that will help US exporters establish a foothold in other markets.”

Some aspects of the programme have not changed. C-TPAT’s standards remain high. “It’s not all about joining the programme. We also suspend companies, and remove them from the programme. So there is a constant churn of evaluation that goes on,” said Schmelzinger. “Americans want to know that the companies they buy merchandise from are not supporting terrorist activities. They want to know that companies are looking at their supply chains, vetting their suppliers, and not buying trinkets from somewhere in the world blindly.”

C-TPAT also continues to help CBP with enforcement. “If we’ve invested our time, our energy, and our resources to prove to CBP that we are trustworthy, then they don’t have to worry about us. They can focus their limited resources on who they don’t know,” said Bray. “We know our supply chain. We’ve got it secured. We know what’s coming in. Don’t worry about us. Worry about the unknown.”

According to CBP’s Smith, enforcement is another way the initiatives are helping US businesses compete. “It’s not just about moving trade. It’s important to have a level playing field to ensure everyone is adhering to the same rules,” said Smith. “So those with the best product at the lowest prices eventually win.”

### More information

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Livestock is an important mainstay in Somaliland's economy, with millions of goats and sheep being exported via the Berbera Port on an annual basis.

## Customs reform and trade facilitation in the Horn of Africa: Somaliland under the microscope

**By Creck Buyonge Mirito,**

CEO AND PRINCIPAL CONSULTANT, CUSTOMS & INTERNATIONAL TRADE ASSOCIATES (CITA) LTD.

### Introduction

THE HORN OF Africa refers to the easternmost extension of Africa, and for the purposes of this article, includes the region covered by Djibouti, Eritrea, Ethiopia, Somalia, and Somaliland. This area has been a theatre of struggle between and amongst world powers for more than one century: the desire to control the Red Sea by colonial strategic interests; struggles for control over the waters of the River Nile among the riparian states, with some Nile River Basin countries questioning the relevance of the Anglo-Egyptian Agreement of 1929); 'Cold War' politics that saw countries in the region switching sides at different junctures; and, more recently, issues related to the 'Global War on Terror.'

Interestingly, Article 10 of the Somaliland Constitution, which was adopted in 2000, recognizes, as part of the country's foreign relations, that there has been "long-standing hostility in the Horn of Africa," and that this needs to be replaced with "better understanding and closer relations." This context informs issues relating to Customs and trade facilitation in the Horn of Africa generally, and in Somaliland in particular.

Somaliland has been cited as an example of locally-driven reconstruction in the period following the fall of Maj. Gen. Mohammed Siad Barre's regime that ruled Somalia from 1969 to 1991. Siad Barre's rise to power came in a bloodless coup after a police officer assassinated the then President, Dr Abdirashid Ali Shermarke, on 21 October 1969. On assuming power, Siad Barre adopted

scientific socialism as the political ideology of the new state, with the justification that such an approach was not in contradiction with the tenets of Islam, and aligned himself with the Soviet Union.

In 1977, Siad Barre's army invaded the Ogaden region of south-eastern Ethiopia, setting off a war that ended with the defeat of Somalia in 1978. He immediately changed his alignment to the United States for military support in exchange for American access to use Berbera Port. Siad Barre was also smarting from the failure of his long-standing war with Kenya – which began in the 1960s – over control of Kenya's so-called Northern Frontier District that is inhabited by Somali-speaking and other related ethnic groups, such as the Borana, Burji, Garre, Ajurran, and Degodia.

War broke out in 1988 between the government and secessionist guerrillas from the north, known as the Somali National Movement (SNM), who contended that they had been systematically discriminated against by Siad Barre's government. After the government was overthrown in January 1991, the SNM took control of north-western Somalia and unilaterally declared independence from the rest of Somalia to become the new 'Republic of Somaliland,' defined by the borders of the former British Protectorate. This was reaffirmed at a conference in Burco (April/May 1991) and in Borama (May 1993).

The complex relationship between Somaliland and Somalia partly arises from the fact that the former British Somaliland gained independence and became a sovereign state on 26 June 1960, but chose to enter into a union with Somalia on 1 July 1960. But, as we have seen, the union ended in 1991 after a civil war that started in 1988 due to long-standing grievances over discrimination by the Somalian regime.

The new Republic of Somaliland has not received international recognition in spite of it having all the key elements of a modern state, such as a defined territory,

a stable government, and a Constitution. Its success in state-building is partly attributed to the fact that it has integrated traditional ways of governance, which are based on consultation and consent, with the apparatus of a modern state. Establishment of an effective and efficient Customs administration is a contribution towards building a sustainable Somaliland state.

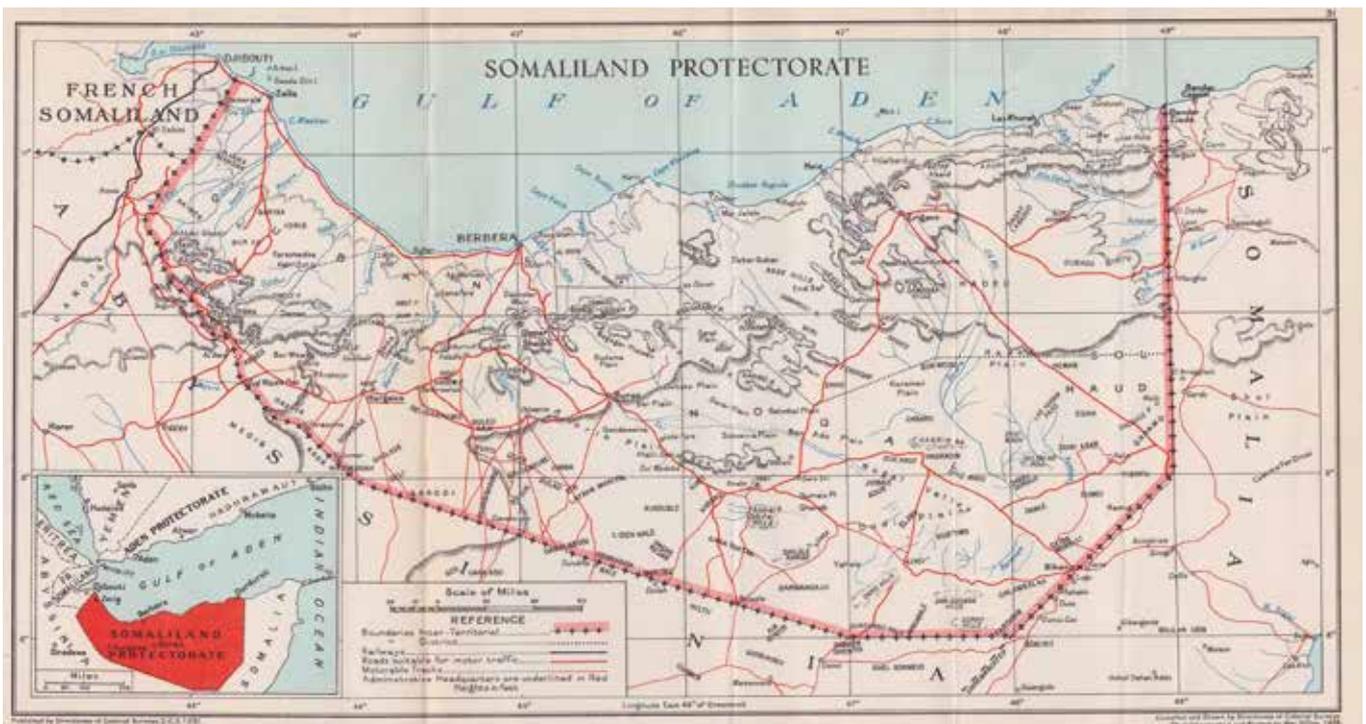
Delayed recognition of Somaliland's sovereignty means that the country does not belong to any regional or international organizations. However, this has not prevented it from exercising some functions associated with sovereign states, such as the negotiation of agreements with other states. In this regard, Somaliland has a transit and trade facilitation agreement with Ethiopia, and in mid-2016, agreements were signed between the Berbera Port Authority (owned and operated by the Republic of Somaliland) and DP World (the Dubai-based global maritime port terminal operator), providing for a 30-year concession for Berbera Port, and the establishment of duty free zones.

These developments, as well as the decision to create a revenue authority in the near future, mirror what is

happening elsewhere in the Horn of Africa, such as the establishment of the Djibouti Duty Free Zone, or the coming into existence in 2008 of the Ethiopian Revenues and Customs Authority (ERCA) – a merger between the Ethiopian Customs Authority and the Federal Inland Revenue Authority.

In addition to political instability and geopolitics, the Horn of Africa region has also been shaped by complex ethnic and clan dynamics, especially in the Somali-speaking countries of Djibouti (colonial era French Somaliland), Somalia (colonial era Italian Somaliland) and Somaliland (colonial era British Somaliland).

The major clans in Somaliland include the Isaaq, Gadabuursi, Ciisa, Dhulbahante and Warsangeeli, and clan membership is taken into account in the distribution of government positions, rather than pure meritocracy. In spite of Somaliland having been a former British Protectorate, it did not inherit the sort of bureaucracy usually associated with Commonwealth member countries, as there was an overlay of practices associated with the Italian system of governing, introduced during the union period which ran from 1960 to 1991.



Somaliland Protectorate 1948



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### Context for reform

Article 2 of the Constitution of Somaliland clearly defines the territory of Somaliland in terms of location (“between latitude 8° to 11° 30’ north of the equator and longitude 42° 45’ east; and consists of the land, islands, and territorial waters, above and below the surface, the air space and continental shelf”) and borders (“the Republic of Somaliland is bordered by the Gulf of Aden to the east; the Federal Republic of Ethiopia to the south and the west; and the Republic of Djibouti to the north-west”).

In terms of Article 6, “the official language of the Republic is Somali, while the second is Arabic, and other languages shall be used when necessary.” Furthermore, Article 14 (paragraph 1) provides that “no taxes or duties which have not been determined by law shall be collected,” and that “the levying, waiver and changes in taxes and other duties shall be determined by law.”

Customs reform in Somaliland is being undertaken as part of the government’s Public Financial Management (PFM) Strategy, which was launched in 2011. During the launch, the then Minister for Finance, Eng. Mohamed Hashi Elmi, identified the four key challenges in raising revenues for the country:

- a lack of capacity in the tax administration system, and low compliance levels among taxpayers;
- a need for tax law and tax administration reform, and a development-oriented system of taxation;
- the difficulty in taxing the dominant pastoral and informal economy;
- the need to fight corruption, as the tax administration is widely perceived to be corrupt.

Customs and revenue reform is also in line with the Somaliland National Development Plan (2012-2016) which focuses on reform of the Ministry of Finance through strengthening revenue policies and systems, reviewing and updating all procedures related

Somaliland faces a number of challenges related to Customs and trade facilitation. First and foremost, though the Somaliland Constitution requires a legal basis for the collection of duties and taxes, the intermingling of international norms which are not always well understood, and the cultural tendency to negotiate and consult on everything, leads to unpredictability in the international trading environment.

to the Customs and Inland Revenue Act, introducing and enforcing value-added tax (VAT) and establishing a training centre for the Ministry. A government-wide Civil Service Strengthening Project, supported by World Bank “with the overarching goal of strengthening institutions to deliver services to citizens” according to Country Representative Hugh Riddell, was launched in November 2016.

Five years after the launch of the PFM Strategy, Customs Law No. 73 was adopted on 16 July 2016, repealing the Customs Rules and Procedures Law No. 91/96. This was a critical step in Somaliland’s reform process. As WCO Secretary General Dr Kunio Mikuriya said in 2005, “without an effective legal framework that guarantees transparent, predictable and prompt Customs procedures, the international private sector will find it highly cumbersome to conduct business with, or invest in, a country in a competitive business environment” (Customs Modernization Handbook, p. 51).

The repealed law provided for the classification of goods based on the Convention on Nomenclature for the

classification of goods in Customs tariffs (1959), Customs valuation using the Brussels Definition of Value (1953), the coordinating role of Customs at the border, and anti-smuggling measures. This is in contrast to the new law which provides for the use of the WCO Harmonized Commodity Description and Coding System (HS Code), the Valuation Agreement of the World Trade Organization (WTO), and modern Customs procedures that include risk management and post-clearance audit.

Moreover, and just as equally important, Revenue Act No. 72 of 2016 made provision for the establishment of the Somaliland Revenue Authority (SLRA), and makes fundamental changes to the administration of tax law in Somaliland.

### Customs and trade facilitation challenges and reform initiatives

Somaliland faces a number of challenges related to Customs and trade facilitation. First and foremost, though the Somaliland Constitution requires a legal basis for the collection of duties and taxes, the intermingling of international norms which are not always well understood, and the cultural tendency to negotiate and consult on everything, leads to unpredictability in the international trading environment.

Even when the current law provides for the use of international standards (such as valuation methods based on the WTO Valuation Agreement, or goods classification based on the HS Code), the understanding of these standards tends to be localized and country-specific. For example, the General Rules for Interpretation of the Harmonized System may be used and interpreted selectively, with an eye to increasing revenue rather than the strict application of the HS rules and the provisions contained in national law.

To remedy this situation, workshops on Customs law, rules of origin and Customs valuation were held in 2015 and 2016 for technical officers and managers from the Ministry of Finance, as well as relevant stakeholders. The objective being to create a sound foundation for Customs operations, based on simple, clear and predictable rules. These



From left to right at the Berbera Port Customs Office: Creck Buyonge Mirito (Adam Smith International), Idiris Dirie (Deputy Chair of the Customs Reform and Modernization Committee), Mohammed Gurhan (Berbera Customs Manager), Yusuf Abdi (Adam Smith International), Abdilahi Omaar (Deputy Director of Customs and Chair of the Customs Reform and Modernization Committee), and Dr Jennifer Clarke (Adam Smith International).

workshops were held at three locations, namely Berbera, Burco and Borama.

There is also a need to enhance strategic and operational planning capacity in the Ministry of Finance, in the envisaged SLRA, and, more specifically, in the Customs Department. In this regard, a Tax Policy Unit (TPU) has been established and staffed, under the Strengthening Revenue Policy and Administration in Somaliland Project (2015/16), funded by the Department for International Development (DFID) in the United Kingdom (UK).

Technical assistance delivered under the DFID-funded project includes development and training in the use of a revenue forecasting model. A comprehensive national strategy for a modern Customs and revenue administration has also been developed, validated and adopted. At a workshop in October 2015, Customs managers adopted the following principles for a modern Somaliland Customs administration: integrity (*sharaf/hufnaan*); fairness (*daacadnimo*); transparency (*daah-furnaan*); mutual respect and cooperation (*iskaashi-shaqo/talo-wadaag*); and professionalism (*aqoon-xirfadeed*).

In addition, successful reform requires appropriate project management

structures, and several have been established:

- a PFM Coordination Unit;
- a Revenue Reform Steering Committee (RSC) chaired by the Minister for Finance, which meets monthly, and which includes representatives of DFID and the implementing partner, the Director General in the Ministry of Finance, the PFM Coordinator, and Directors from the Inland Revenue, Customs and Planning Departments;
- a Revenue Technical Working Group (RTWG), which meets weekly to monitor project progress and address any bottlenecks that may be encountered;
- a Customs Reform and Modernization Committee (CRMC), at departmental level, has been established as the focal point for the identification of the needs and reforms in the Department.

Without adequate cooperation, communication and partnerships with external stakeholders in the public and private sector, Customs reforms can easily encounter conflict and lose steam. Training and sensitization provided under the DFID-funded project has, therefore, included representatives of the Ministry of Commerce and Industry, the Berbera Port Authority, the Somaliland Chamber of Commerce & Industry,

the Quality Control Commission, the Central Bank of Somaliland, and the Accountant General among others. This partnership approach is reflected in the concept of '*iskaashi-shaqo/talo-wadaag*' (mutual respect and cooperation).

### Conclusion

Customs reform and trade facilitation in a post-conflict environment like Somaliland has its special challenges, but as we have seen, efforts are being made to address these challenges comprehensively through strategic and policy interventions, as well as through implementation at the operational level.

Nevertheless, it will take time to enhance the capacity of the country to operate a modern Customs and revenue administration with adequate structures, including the necessary human and financial resources. On the positive side though, the support of development partners has certainly provided the needed impetus for Customs and revenue reform and modernization, but more needs to be done. Somaliland is the definitely on the right track!

### More information

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### About the author

Creck Buyonge Mirito is the CEO and Principal Consultant of Customs & International Trade Associates (CITA) Ltd., which is based in Nairobi, Kenya. CITA engages in training, research and consultancy on Customs, international trade, trade facilitation and border management issues. From September 2015 to December 2016, Mr Mirito worked as a Customs Policy and Training Expert in the "Strengthening Revenue Policy & Administration in Somaliland Project," which was funded by the UK's Department for International Development and implemented by Adam Smith International. The views expressed in this article are his own.

# The eTIR pilot project, an ongoing success

**By Daniel Kern,**

INTERNATIONAL ROAD TRANSPORT UNION (IRU)

**and André Sceia,**

UNITED NATIONS ECONOMIC COMMISSION FOR  
EUROPE (UNECE)

OVER SEVERAL DECADES, the 1975 Customs Convention on the International Transport of Goods under Cover of TIR Carnets (TIR Convention) has proven to be one of the most successful and efficient instruments for the facilitation of international transport and goods in transit, helping to increase trade, boost economic growth, and make communities stronger. The world's only tried and tested global Customs transit system – it is the easiest, safest and most reliable way to move goods across international borders, saving time and money for transport operators and Customs authorities.

The TIR system is administered by its Contracting Parties under the auspices of the United Nations Economic Commission for Europe (UNECE), and is governed by the provisions of the TIR Convention. It constitutes a public-private partnership between the Contracting Parties and the international guarantee chain, which is managed by the International Road Transport Union (IRU) – the world's road transport organization – and national associations. It is currently in operation in 58 countries, covering the whole of Europe and extending to North Africa, the Middle East and Central Asia. In July 2016, China became the 70<sup>th</sup> Contracting Party to the TIR Convention, marking an important new milestone for its ongoing global expansion.

For some time, momentum has been building towards computerizing the

system, with Customs administrations and the private sector pushing to computerize large parts of the TIR procedure. Since 2003, TIR Contracting Parties have been working on the “eTIR” project, aimed at achieving a paperless system. In July 2015, TIR Contracting Parties reconfirmed their commitment to this end by adopting the Joint Statement on the computerization of the TIR procedure. In March 2015, the IRU and UNECE also started to actively collaborate on computerizing the TIR, and in October, Customs administrations and national associations of the Islamic Republic of Iran and Turkey volunteered to work with the IRU and UNECE on the launch of the eTIR pilot project.

## A resounding success

The initiative has been a resounding success, introducing the incontrovertible benefits of going digital (see WCO Magazine, February 2016 issue, page 21). The advantages include less data entry work, ease of implementation, and advance risk assessment. The eTIR replaces the paper TIR Carnet, which traditionally serves as a Customs declaration, and accompanies the driver and cargo along the itinerary. Ensuring that Customs officers receive cargo information electronically before the cargo arrives, the eTIR makes international freight transport faster, more efficient, and more secure, contributing to increasing trade and boosting economic growth.

In August 2016, all parties, therefore, decided to launch phase two of this very important project. The next step involves not only additional Customs offices and transport companies, but also adds new functionalities, such as

the possibility to undertake multiple loadings and unloadings, and to amend declarations when additional loading or unloading are not specified at the start of the transport procedure.

Throughout the eTIR pilot project, stakeholders use dedicated, secure web-based applications and web services to exchange information. National associations use the “TIR Association Portal” to issue electronic guarantees to transport operators, while transport operators use the “TIR Holder Portal” to order e-guarantees and to submit pre-declarations to Customs authorities. TIR data is sent from Customs administrations' information technology (IT) systems to the IRU and is instantly and automatically replicated to the eTIR international system, hosted by the UNECE.

Both the IRU and UNECE's systems offer secure web services to Customs administrations to verify the validity of a given e-guarantee, as well as to obtain all data related to a transport procedure covered by an e-guarantee. In order to implement the eTIR pilot project, the Iranian and Turkish Customs administrations made only minimal adjustments to their IT systems, as eTIR is designed to link into the existing architecture.

It is also important to note that the eTIR relies on the principles contained in the WCO SAFE Framework of Standards to Secure and Facilitate Global Trade, and makes use of the WCO Data Model. The eTIR provides all stakeholders with real-time access to relevant information, thus providing additional security and risk management benefits to all stakeholders, while at the same time accelerating

In the wider regional context, the success of the eTIR pilot project has also sparked enthusiasm and curiosity among governments, which are now interested in launching additional eTIR pilot projects. Turkey and Ukraine have recently recognized the benefits of going digital, and are planning a new eTIR project along an inter-modal trade corridor that crosses the Black Sea.

Customs procedures and significantly reducing costs.

To date, all parties involved in the pilot project have shown a high level of commitment, enthusiasm, and satisfaction. There is much anticipation for the presentation of the final results to the TIR Administrative Committee, comprising all TIR Contracting Parties, which will be the next milestone to move the eTIR agenda forward.

In parallel with ongoing efforts to develop the legal provisions for the eTIR, which will either be included in an optional annex to the existing TIR Convention or in a separate protocol to the Convention, the eTIR pilot project between Iran and Turkey is a crucial stepping stone in the development of a fully computerized global TIR procedure.

#### **Strong endorsement and interest**

With proven far-reaching benefits, the eTIR pilot project has received strong endorsement and interest from a growing group of countries, notably through the Economic Cooperation Organization (ECO), an intergovernmental organization, whose Secretariat is based in Tehran. In October 2016, the ECO approved the report of its sub-committee, praising the successful implementation of the eTIR pilot project between Iran and Turkey, in cooperation with UNECE and the IRU.

The ECO also acknowledged that the eTIR will further facilitate trade and transport among all TIR Contracting Parties, particularly in the ECO region, comprising the Islamic State of Afghanistan, Azerbaijan, the Islamic

Republic of Iran, Kazakhstan, the Kyrgyz Republic, Pakistan, Tajikistan, Turkey, Turkmenistan, and Uzbekistan. The eTIR was hailed as an efficient tool, and a significant way forward for the economic integration of the region. Consequently, the ECO members have expressed strong support for the full computerization of the TIR, and called on TIR Contracting Parties, UNECE and the IRU to continue expanding the geographical coverage of the eTIR to all ECO countries.

In the wider regional context, the success of the eTIR pilot project has also sparked enthusiasm and curiosity among governments, which are now interested in launching additional eTIR pilot projects. Turkey and Ukraine have recently recognized the benefits of going digital, and are planning a new eTIR project along an inter-modal trade corridor that crosses the Black Sea, with the objective of providing a secure and fast solution for the transport of containers under cover of a TIR Carnet. As part of a wider agreement on Customs and trade between the two countries, the project proposes to reinforce bilateral cooperation, and will bring new benefits to Customs, transport operators, and national associations.

#### **One of the keys to facilitate intermodal transport**

The eTIR is certainly one of the keys to further facilitate intermodal transport, making it more efficient and secure, and facilitating trade growth in the region. This is an important marker for the Association of International Road Carriers of Ukraine (AsMAP UA), an IRU member representing a strong community of over 3000 private and

public companies carrying passengers and goods to nearly 50 countries in Europe, the Middle East, and Asia. In the Asia and Pacific region, various countries have also indicated their interest in actively participating in the implementation of the eTIR system in order to further improve transit procedures.

#### **Direct economic benefits and next steps**

The implementation of a paperless transit system, such as the eTIR, provides direct economic benefits to the countries involved, with increased efficiency and improved security of transit operations being the main advantages. By streamlining transit procedures, waiting times and transport costs are significantly reduced, ensuring substantial savings for international trade.

The second step of the eTIR pilot project between Iran and Turkey continues to successfully demonstrate the feasibility of a paperless TIR procedure. Political engagement, mutual trust, and a high level of cooperation among all TIR Contracting Parties are crucial for achieving the full computerization of the system. With this in mind and considering the interest from further countries and regional organizations, such as the ECO, UNECE and the IRU are continuing their efforts, in collaboration with interested parties, to fully computerize the TIR, and to roll-out the technology to all TIR Contracting Parties.

#### **More information**

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# Gambia Revenue Authority modernizes its human resource management approach

By Si Mohamed El Hail,

WEST AFRICAN CUSTOMS ADMINISTRATIONS MODERNIZATION PROJECT LEAD HRM EXPERT



In cooperation with the WCO, the Gambia Revenue Authority has embarked on a journey to modernize its human resource management capacity, which will enable it to become one of the country's best employers, as well as a better service delivery institution.

CREATED IN 2004 through a merger of the Central Revenue and Customs & Excise Departments, the Gambia Revenue Authority (GRA) employs approximately 590 staff members, led by a Commissioner General. Recognizing the importance of developing the skills and competencies of its staff, in an effort to further their effectiveness, the GRA top management team decided to collaborate with the WCO back in 2013 in order to develop the Authority's human resource management (HRM) capacity.

The WCO provides this support as part of its West African Customs Administrations Modernization (WACAM) Project, funded by the Swedish Government and designed to support modernization in West African Customs administrations in the fields of strategic management, HRM, and stakeholder engagement. Support for the WACAM Project is provided by way of a three-pronged approach:

1. Delivery of regional workshops to raise awareness on best practices and tools in the three above-mentioned areas;
2. Provision of tailored national support;
3. Fostering regional cooperation through the development of a pool of regional experts who, having benefited from tailored national support can assist other administrations in building capacities.

It is during a regional workshop which took place in February 2013 in Banjul (Gambia) that GRA officials and the WACAM project team first met and discussed best practices, processes, tools and methodologies in areas such as staff planning, recruitment, and training and staff motivation. Later on, the GRA officially made a request to the WCO Secretariat for support. The national support officially began in the last quarter of 2013.

#### Needs assessment and first results

In order to respond appropriately to the GRA's request, WCO experts conducted an HR diagnostic using the WCO People Diagnostic Tool – the first time that this WCO tool had been used in the field.

Based on the diagnostic results, WCO experts and GRA officials discussed in great detail the Authority's needs in the field of HRM, and agreed that the GRA's HRM Unit needed to build capacity, in order to:

- act as a strategic partner of the GRA;
- improve the quality of the GRA recruitment process, and implement competency-based techniques;
- enhance the training and competency development provided to GRA staff.

Based on the needs assessment, priorities were set and a results framework developed. The framework represents the underlying logic that explains how the development objectives of the project are to be achieved.

From 2013 to 2015, the following HR tools were developed and implemented:

- a HRM strategy which includes a strategic HR dashboard that provides visual representation of the metrics that HR project managers need to keep track of, or judge, the performance of the strategy;
- a HRM database allowing access to all staff information;
- a competency framework defining the knowledge, skills, and attributes needed for people in the organization;
- a revised recruitment policy, and associated manual of procedures;
- a training package on competency-based recruitment, which is a process of recruitment based on the ability of candidates to provide anecdotes, or short accounts, demonstrating their technical skills, work experience, past performance, qualifications, training and reactions (behavioural competencies) to incidents and events in their professional life, which can be used as evidence that a candidate has a given competency;
- updated job descriptions which were drafted by a working group that included representatives from all technical, operational and support services;
- a job catalogue, and a dictionary of competencies.

The HRM competency-based approach applied to the Customs context is a new paradigm that places staff at the centre of an administration's concerns, and makes an HRM Unit a strategic partner, indispensable to the achievement of organizational goals.

Both management and staff benefit from this approach. This implies the establishment of a transparent blueprint for staff planning, recruitment processes, job expectations, training and development, performance management and rotation, as well as career management.

Personal judgment and subjectivity in the management of staff are minimized, creating a healthy and positive work environment, as well as facilitating a stronger relationship between employees and managers.

Since 2016, the project has focused on supporting the GRA with the "institutionalization" of the new HR processes to ensure that modernization efforts undertaken in this field have a sustainable and positive impact. The institutionalization project was allocated to the HRM Unit and to relevant staff members.

#### Establishing the HRM Unit as a strategic partner

It is widely agreed that people are an organization's most important asset, and a source of competitive advantage – by no means a radically new concept.

By developing a new set of HR tools and procedures based on this approach, and by following the WCO's Framework of Principles and Practices on Customs Professionalism, the HRM Unit was able to become a 'recommendation force' for top management, to enhance its credibility and to ensure that it evolves into a strategic partner of the administration, notably in the design of its 2015-2018 strategic plan.

Moreover, the HRM Unit also started a dialogue with top managers to convince them of the benefits of developing business strategies that make the best use of the core competencies of the organization's staff.

#### Improving the recruitment process

A competency-based recruitment relies on the use of assessment tools that measure the competencies of the proficiency level of a candidate comparatively with the job requirement as mentioned in the job description.

To improve its processes, the HRM Unit undertook a competency assessment of all the GRA staff. Based on the results and on the identified needs, they developed a staffing plan.

#### Training and competency development

To ensure that training and competency development activities are cost-effective, goal-orientated and productive, as well as enabling staff to achieve a high level of competence in an efficient manner, the GRA's HRM and Training Units had to abandon the traditional approach to training, which consisted of training staff without worrying about the return on investment.

With the WACAM experts' support, the responsibilities of all the actors involved in the training process were clarified. In addition, based on the results of the competency assessment exercise, the HRM Unit was able to not only scientifically identify competency gaps, but also the most efficient way to fill in these gaps.

#### Institutionalizing the changes

In order to institutionalize the changes made to HRM, it was deemed necessary to create a sense of urgency at the top and senior management levels, as well as raise awareness amongst the GRA staff on the added value of the new approach which gives prominence to the concept of competency.

Therefore, in order to test the quality of HRM competency tools and start

preparing staff for the changes to the HR policy, a GRA HRM Working Group was established, representative of all technical, operational and support services. The individual members of this group act as "change agents" in their respective departments.

In order to gain the support of all staff, the GRA, with the support of WCO experts, conducted information and communication sessions around the new approach at the national level. During these sessions, the benefits and challenges of this new approach for both the Authority and the staff were discussed.

Feedback from all participants was positive. An officer working in the port said, "With the adoption of this new approach and the new tools that have been developed, I have a clearer vision of what I need to do at my workstation, how to do it, and what I need to have to do it." Another employee working in the tax department explained that, "Now that I have a job description based on competence, I have a clear vision of my career plan."

Besides garnering support from the staff, the HRM Unit also reached out to the finance and civil service ministries. During meetings with their representatives, the impact of the new approach on an organization's performance was highlighted. The Ministry of the Civil Service even decided to promote this approach as a national best practice to be adopted by all State departments.

The GRA also showcased its HRM progress to the Ministry of Finance and the National Personnel Management Office of the Gambia. Both institutions have requested that the GRA impart its new HRM competencies and lessons learned with them in the near future.

#### More information

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To ensure that training and competency development activities are cost-effective, goal-orientated and productive, as well as enabling staff to achieve a high level of competence in an efficient manner, the GRA's HRM and Training Units had to abandon the traditional approach to training, which consisted of training staff without worrying about the return on investment.



# Calendar of Events

## March

- 1 - 3 SAFE Working Group, 17<sup>th</sup> Meeting
- 2 - 3 Regional Offices for Capacity Building/Regional Training Centres, 12<sup>th</sup> Meeting
- 6 - 7 Agreement on Trade Facilitation Working Group, 7<sup>th</sup> Meeting
- 7 - 9 Capacity Building Committee, 8<sup>th</sup> Session
- 9 - 10 Integrity Sub-Committee, 16<sup>th</sup> Session
- 13 - 14 Harmonized System Committee Working Party
- 15 - 24 Harmonized System Committee, 59<sup>th</sup> Session
- 27 - 31 Enforcement Committee, 36<sup>th</sup> Session

## April

- 3 - 6 Permanent Technical Committee, 215<sup>th</sup>/216<sup>th</sup> Sessions
- 6 - 7 Revised Kyoto Convention Management Committee, 17<sup>th</sup> meeting
- 6 - 7 ATA/Istanbul Administrative Committee
- 10 - 13 Finance Committee, 100<sup>th</sup> Session
- 24 - 25 Global Information and Intelligence Strategy (GIIS) Project Group, 13<sup>th</sup> Meeting

## May

- 3 - 4 Global Origin Conference, Addis Ababa (Ethiopia)
- 3 - 5 Technical Experts Group on Non-Intrusive Inspection (TEG NII), 2<sup>nd</sup> Meeting
- 8 - 12 Technical Committee on Customs Valuation, 44<sup>th</sup> Session
- 15 - 17 Data Model Project Team
- 18 - 19 Information Management Sub-Committee (IMSC), 72<sup>nd</sup> Meeting
- 22 - 23 Global RILO Meeting , 22<sup>nd</sup> Meeting
- 29 - 2 June Harmonized System Review Sub-Committee, 52<sup>nd</sup> Session

## June

- 7 - 9 2017 IT Conference & Exhibition, Tbilisi (Georgia)
- 19 - 28 Knowledge Academy for Customs and Trade

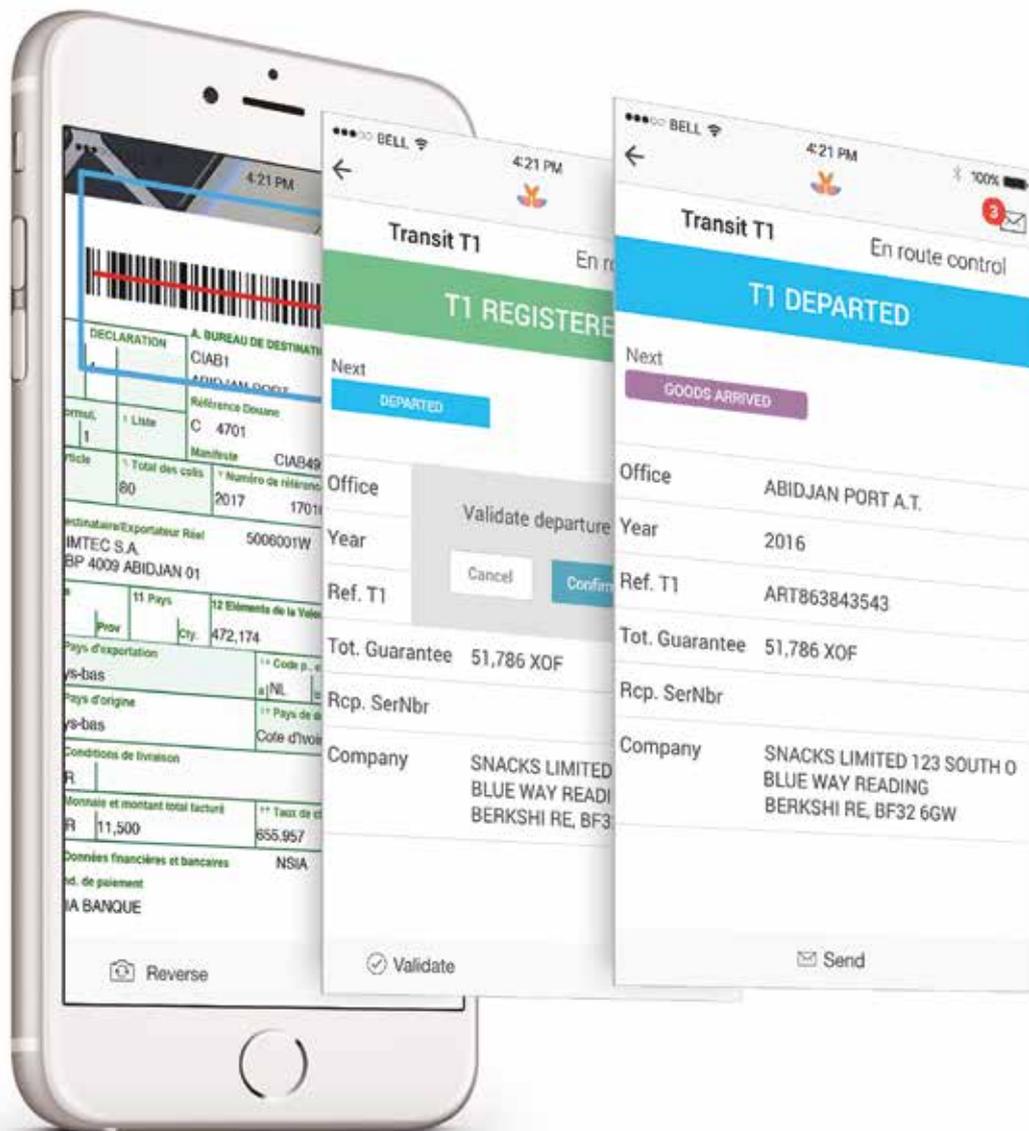
## July

- 3 - 5 Policy Commission, 77<sup>th</sup> Session
- 6 - 8 Council, 129<sup>th</sup>/130<sup>th</sup> Sessions
- 10 - 11 Global Transit Conference

*It should be noted that WCO meetings are mentioned for information purposes and are not all open to the public. Unless otherwise indicated, all meetings are held in Brussels. Please note that these dates are indicative only and may be subject to change. The WCO meetings schedule is regularly updated on the WCO website.*



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