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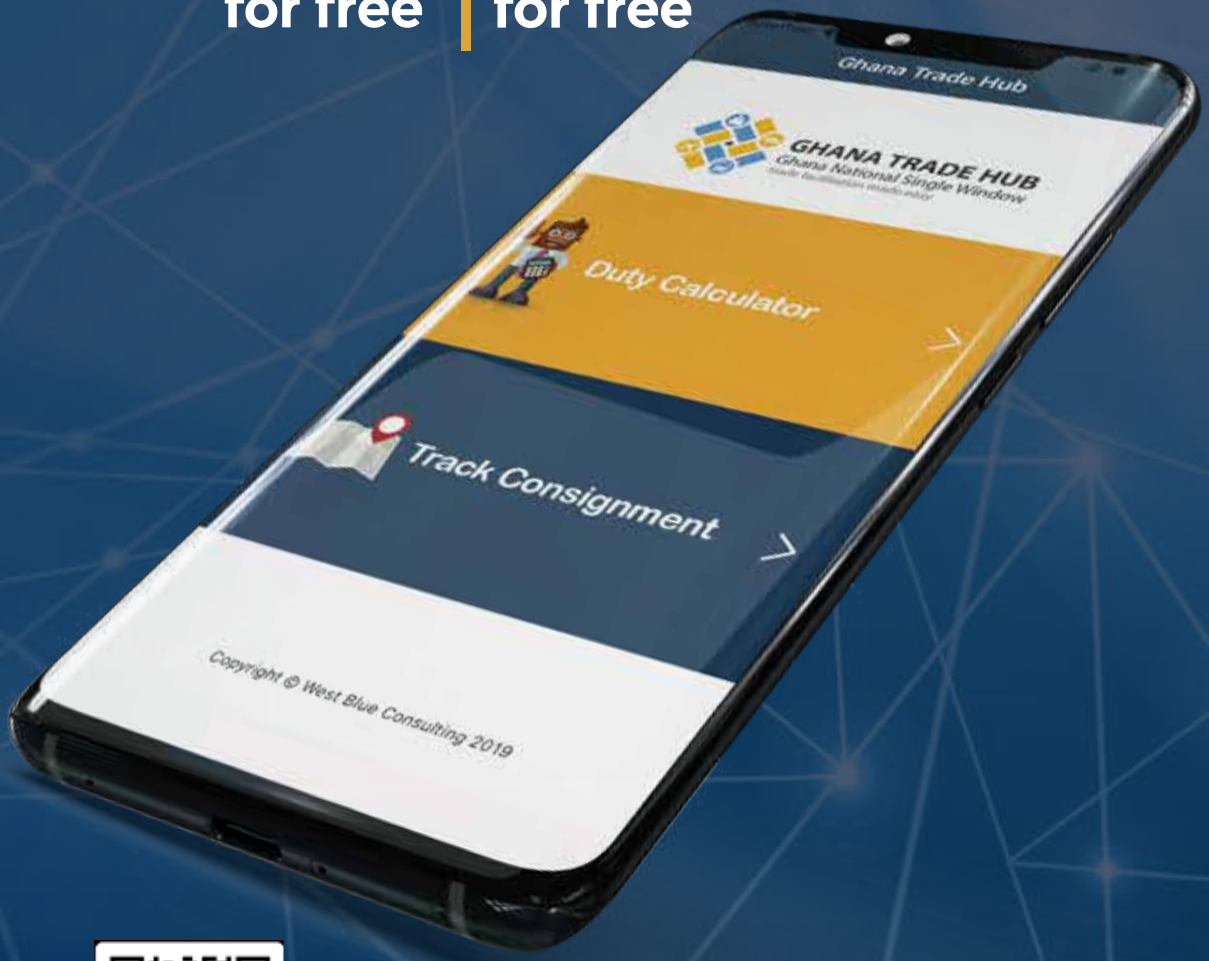

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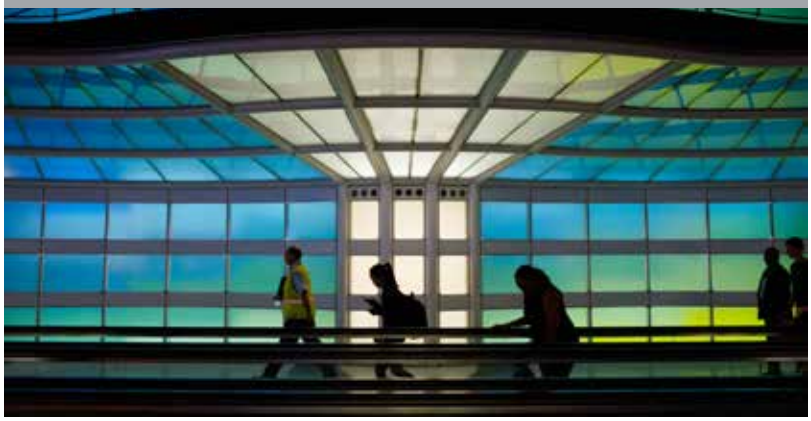

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Small Island Economies: the WCO's renewed focus

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The WCO's initiative on "Small Island Economies" (SIEs) was launched in June 2018 with the aim of providing the Customs administrations of such economies with tailor-made capacity building and technical assistance that would help them to curb illicit trade and smuggling more effectively, while facilitating trade flows and reducing the costs of doing business across borders.

Various challenges

There is no formal definition of SIEs, their "smallness" often referring to the size of their population, their land mass or their share in international trade. Depending on their level of development, such States/jurisdictions are loosely termed by different names that include "small economies," "small and vulnerable economies," "Small Island Developing States (SIDS)," or "structurally weak, vulnerable, and small economies."

They were recognized as a distinct group of developing countries facing specific social, economic and environmental vulnerabilities at the United Nations Conference on Environment and Development (UNCED), also known as the Earth Summit, held in Rio de Janeiro, Brazil, in 1992. Special mention of SIEs was also made in the UN's Millennium Development Goals, or MDGs.

Challenges they face, in varying degrees, include:

- lack of connectedness to global value chains, which negatively impacts their share of international trade and investment;
- remoteness from large markets, resulting in increased transportation costs;
- high communication costs, often exacerbated by poor maritime and air connectivity;
- inadequate institutional capacity, making them less inclined to accede to international conventions;
- proneness and vulnerability to natural disasters, due in part to climate change.

Additionally, they are disadvantaged in terms of a narrow range of resources; overuse of resources and their premature depletion; domestic markets too small to provide significant economies of scale; heavy reliance on imported goods, which often translates into a high cost of living for residents; and limited export volumes with a narrow range of products. Many of the disadvantages faced by

SIEs are magnified by the fact that they are not only small, but are themselves made up of a number of small islands.[1]

Key achievements

In order to support the Customs administrations of SIEs in effectively tackling the challenges they face and to respond to their specific needs, the WCO has been providing customized capacity building and technical assistance, with more than 60 activities having been organized during the 2017/2018 financial year.

To enumerate some, a workshop on the Revised Kyoto Convention (RKC) and other key WCO instruments in June 2017 gathered representatives from six SIEs in the Pacific, including a few non-WCO Members. This led to the successful accession to the RKC by Kiribati and Vanuatu in 2018, and by the Cook Islands and Tuvalu just a few weeks ago. In 2018, a similar workshop for countries in the Caribbean generated further interest in the RKC among islands in the region.

In order to enhance the data analysis and targeting capacities of SIEs, some have been assisted with the deployment of the WCO Cargo Targeting System (CTS) (e.g., Bahamas, Jamaica, Maldives and Singapore) and the WCO National Customs Enforcement Network (nCEN) (Comoros, Fiji, Haiti, Maldives, Mauritius, Seychelles and Vanuatu). Furthermore, the Global Travel Assessment System (GTAS), a standardized system enabling the collection and analysis of passenger data, was implemented in the Maldives at the end of 2018.

Going forward

The WCO will continue to engage with the Customs administrations of SIEs, in order to obtain a deeper understanding of their current realities. This engagement will facilitate the development of better tailor-made and effective solutions that respond to their unique peculiarities and challenges.

Based on suggestions put forward on SIEs by the WCO's Permanent Technical Committee and Policy Commission respectively during 2018, the Secretariat:

- organized a regional workshop for countries in the Caribbean sub-region from 13 to 17 May 2019 in Port of Spain, Trinidad and Tobago, with the additional financial support of Her Majesty's Revenue and Customs (HMRC) in the United Kingdom and the Secretariat of the African, Caribbean and Pacific (ACP) Group of States;
- organized a sub-regional workshop for some Indian Ocean SIEs from 11 to 14 June 2019 in Port Louis, Mauritius;
- will organize a regional workshop for countries in the Pacific sub-region in due course;
- will further engage with relevant regional and international bodies, with the aim of collecting more national and regional experiences and practices.

Specific guidance for SIEs, the outline of which has already been approved by the Policy Commission, will also be developed. In this regard, the specificities, challenges and priorities of SIEs will be analysed with a view to determining areas of change and measures to be taken, while keeping their diversities and heterogeneous needs in mind.

In addition, working through the WCO Capacity Building Committee, the Secretariat will develop tailor-made capacity building programmes for the Customs administrations of SIEs based on their identified needs and priorities. The WCO's regional structures will be engaged to assist in the delivery of these programmes, including train-the-trainer courses.

Furthermore, funds will have to be secured for the envisaged activities, and collaboration sought with relevant regional organizations such as the Oceania Customs Organisation (see article in the February 2019 edition of this magazine) in order to optimize the utilization of resources and avoid potential duplications.

Regarding accession to the Convention Establishing the Customs Co-operation Council (the WCO's founding instrument) and other WCO conventions (e.g., the RKC), as well as to the implementation of instruments, standards and tools, the Organization will support SIEs in tackling the difficulties they face in this regard, by providing all necessary technical assistance. Such difficulties include:

- lack of political will;
- legislative and operational challenges around accession and implementation;
- membership fees;
- resource constraints that could hinder their participation in WCO meetings.

In conclusion, it should be stressed that while encouraging and supporting SIEs to accede to WCO conventions is important, it is equally important that they not only leverage existing WCO instruments and tools, but also participate in the development and enhancement of them so that these instruments and tools reflect their perspectives and aspirations.

More information

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1 *To better understand the environment of SIEs and their room for manoeuvre, readers are invited to peruse the article by Mauritius Customs that appears in the February 2019 edition of this magazine*

WCO releases new Customs tools to advance gender equality and diversity

By Johanna Törnström,
ASSISTANT PROGRAMME MANAGER, CAPACITY BUILDING DIRECTORATE, WCO

Gender equality and diversity has been part of the WCO capacity building agenda since 2013. In continuing its efforts to promote the advancement of gender equality and diversity in Customs, the WCO launched a number of new tools and initiatives in the past year.

Gender Equality Organizational Assessment Tool (GEOAT)

Launched in 2013, the GEOAT enables Customs administrations to self-assess their existing policies and procedures on gender equality, in order to identify areas where improvement may be needed. To advance its equality agenda, the WCO has fine-tuned the GEOAT, aligning it to international practices, with the support of the WCO Virtual Working Group on Gender Equality and Diversity.

New content includes definitions of gender equality and diversity-related concepts, a chapter on how to implement gender mainstreaming through project management, and a list of cross-cutting indicators aimed at supporting the transversal implementation of gender equality in Customs. In addition, the language of the GEOAT has been revised, and additional explanations have been added to highlight that gender equality concerns and benefits everyone.

E-learning module: "Advancing Gender Equality in Customs"

A new e-learning module on "Advancing gender equality in Customs" has been published on the WCO CLiKC! Platform. It is available in both English and French, and has been optimized for small screens and tablets. The module targets all Customs officials, and aims to raise general awareness on gender equality and its links to Customs reform and modernization.

The tool mixes theory and practical exercises. For instance, users are asked to put themselves in the shoes of a hiring manager facing problems with sexual harassment complaints in the workplace or of a manager having to improve the safety and overall performance at a border post.

Funded by the Government of Finland, through the Finland East and Southern Africa Capacity Building Programme, this module

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forms part of the WCO's Blended Training Package on gender equality in Customs, which also consists of a five-day workshop targeting senior managers on how to implement gender mainstreaming in Customs.

Another tool in the pipeline

With a long-term objective, a compendium of case studies and best practices that could be used as a complement to the GEOAT is also being developed within the Virtual Working Group, which currently gathers officials from 34 countries. They meet every two months via an online meeting platform to exchange experiences and best practices on gender equality and diversity-related initiatives within Customs.

Some of the topics discussed at these meetings include "Gender Equality and Trade Facilitation," "How to handle resistance when working with gender equality," and "How to monitor gender equality policies." Several case studies have already been collected on ways to promote work-life balance (Australia, Finland, Israel and the Maldives), and on ways to develop communication and awareness-raising initiatives on gender equality in Customs (Indonesia).

A second survey on gender equality and diversity

To get a better overview of the initiatives and practices implemented by its Members, the WCO ran a second survey at the beginning of 2019. The first survey run in 2016 generated 60 replies. This time, the WCO translated the survey into six languages, and has received 93 responses to date. The second survey is more comprehensive: it includes questions, not only related to gender balance, but also work-life balance initiatives, the prevention of sexual harassment, and Customs' collaboration with women's business associations.

The figures from the second survey show that Customs is still a male dominated sector. Women average around 38% of the workforce, although this figure varies between 5.9 and 73% from country to country. The number of women is even lower in senior and middle management positions with an average of 28% in senior management positions and 34% in middle management positions. However, 17 respondents indicated that they have more women than men in their Customs workforce.

In terms of work-life balance initiatives, 74% of respondents indicated that they have implemented one or several initiatives in this regard, including flexible working hours and/or awareness-raising campaigns on well-being issues. Moreover, around 81% of respondents indicated that they have implemented measures to prevent sexual harassment, such as developing codes of conduct, and around 19% have established proactive collaboration with women's business associations.

While the survey responses show great progress in many countries and an increasing interest in gender equality and diversity-related issues, it also demonstrates that more awareness is needed on the benefits that gender equality can bring, both at an organizational level and in terms of sustainable development.

The WCO encourages its Member Customs administrations to make use of the newly developed tools to gain a better understanding of how to improve and further advance gender equality and diversity both within their workforces and vis-à-vis external stakeholders, while also urging them to actively get involved in the work of the Virtual Working Group.

More information

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WCO and SECO begin collaborating to further boost trade facilitation

The Swiss State Secretariat for Economic Affairs (SECO) and the WCO have launched their first joint comprehensive capacity building programme to deliver capacity building and trade facilitation assistance in Bolivia, Colombia, Peru and Uzbekistan over the next four years. Through this initiative, both organizations hope to reduce overlap and duplication, while strengthening the harmonization of working methods.

Funded by SECO and managed by the WCO, the initiative is called the "Global Trade Facilitation Programme" (GTFP), the term "Global" referring to the growing demand from countries across the globe for the provision of holistic support that is required to achieve sustainable change.

The beneficiary countries are more advanced developing economies and economies in transition, with seven out of 10 of their citizens still affected by poverty. The programme aims to bolster the role of trade in their economic development and increase their competitiveness by fostering strengthened compliance with international practices and standards, thereby ensuring efficiency along the full length of the supply chain.

Trade facilitation

Assistance aimed at the simplification and harmonization of procedures will be provided through the WCO Mercator Programme, which was launched in 2014 and designed to assist governments in implementing the WTO Trade Facilitation Agreement (TFA) specifically and Customs trade facilitation measures generally, using core WCO instruments and tools.

Diagnostic missions by accredited Mercator Programme Advisors (MPAs) and thematic experts will be carried out in each country to analyse the current state of play and establish priorities. Tailor-made work plans will then be developed by the experts and approved by a National Programme Steering Committee (NPSC) to be established in each country, composed of representatives from Customs, WCO experts and other interested parties. Once the plans are approved, activities will be rolled out over the course of three years, followed by a monitoring and evaluation phase.

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Organizational development

The GTFP will also focus on organizational development, the objective being to ensure that officers in the beneficiary Customs administrations do not only have the necessary technical expertise, but also demonstrate the right leadership and management skills to implement and take ownership of reforms. Among other activities, Customs senior managers will have to participate in WCO Leadership and Management Development (LMD) workshops.

Institutional strengthening will be another priority, with the WCO and SECO working with beneficiary Customs administrations on strategic planning, the adoption of competency based human resource management, and the development of stakeholder relations, especially with the private sector.

Performance measurement

Last but not least, a part of SECO's contribution will be used to support the WCO's ongoing work in developing a holistic benchmarking tool to measure Customs performance. The programme provides an ideal opportunity to further identify such indicators. As the measurement of performance is a topic of interest to all WCO Members, experience gained in this area will be widely shared.

Next steps

The programme management team, composed of three people, has already reached out to the four beneficiary countries to start discussions on the way forward. As part of the inception phase of the programme, diagnostic missions will now be delivered by MPAs in each country using WCO diagnostic tools to identify national priorities and design national work plans.

More information

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Light aviation, a new line of work for the WCO

The WCO and the European Union (EU) are partners in a new project called "COLIBRI," which aims to build the capacity of Customs administrations to control general aviation on routes between Latin America, the Caribbean and Africa, as well as between the EU and these regions.

Background

What we know as general aviation comprises all civil aviation activities other than commercial transport: sport or leisure aviation, private aviation, business aviation and aerial work (search and rescue, aerial spraying, mapping, surveillance, etc.). General aviation is permitted to use government-owned, private and most civil airports (access to some civil aerodromes is restricted to commercial flights only).

To enable administrative authorities to exercise control over international movements of general aviation aircraft, national legislatures generally require certain documents to be provided, such as the flight plan, documents on the status of the aircraft, documents on the goods being transported, and documents relating to the persons aboard and their luggage.

However, general aviation is not subject to the same Customs or police inspection mechanisms as commercial aviation. Flight security measures are considerably less stringent, even in areas that are as well-regulated as European countries, which hampers the ability to track flights.

What is more, light aircrafts often need only rudimentary infrastructure to take off and land. All that is required to allow the most experienced pilots to take off or land is a stretch of flat ground a few hundred metres long and a few dozen metres wide.

This means that general aviation represents a genuine opportunity for organized crime, offering a number of advantages to traffickers. This is a discreet, fast mode of transport that can use smaller airports, where law enforcement agencies are often absent.

Control procedures

Responses to the risks associated with this mode of transport vary. Some countries have military surveillance capabilities and have accordingly established proper airspace control, employing radar coverage to identify clandestine flights (where the transponder is switched off) or suspect flights (on the basis of discrepancies between the flight plans filed and the radar data analysis of the flight plan's historical data), and carry out air interception operations.

Meanwhile, monitoring of aerodromes, although difficult to carry out in practice, is essential. This involves a risk assessment, to be conducted on the basis of route mapping, taking account of a number of criteria, such as the accessibility and protection of the platforms. A first stage in implementing a more effective control policy is a census of aerodromes and the aircraft based there.

Moreover, working with international flights involves intensified operational cooperation with the authorities in neighbouring countries and on other continents.

In 2012, an aeroplane transporting a drug shipment was approaching to land in Brazil when, alerted to the presence of officers on the ground, the pilot decided to turn back to Paraguay but had to land in a field due to lack of fuel.

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COLIBRI Project

The project aims to support Customs administrations in Latin America, the Caribbean and Africa in the implementation of effective controls. Focusing specifically on general aviation, COLIBRI is a further project carried out under the EU's Cocaine Route Programme, which, in particular, features the AIRCOP Project, implemented by the WCO, the UNODC and INTERPOL, primarily aimed at stepping up inter-agency cooperation at international airports.

The main activities of the project will be to:

- evaluate the needs of the countries concerned as a start, identifying the teams and training them in intelligence handling and techniques for targeting and inspecting aircraft in transit at international airports, as well as small aerodromes, and even clandestine airstrips;
- create a real-time operational communication system, facilitating the sharing of information at national and international level;
- develop a spatial database recording information about, and controls carried out on, aircraft, and a mapping tool offering the possibility of exploiting geographical data to identify and analyse risks;
- carry out regular inspections and control operations in the various regions involved in the project to evaluate and strengthen the mechanisms used.

More information

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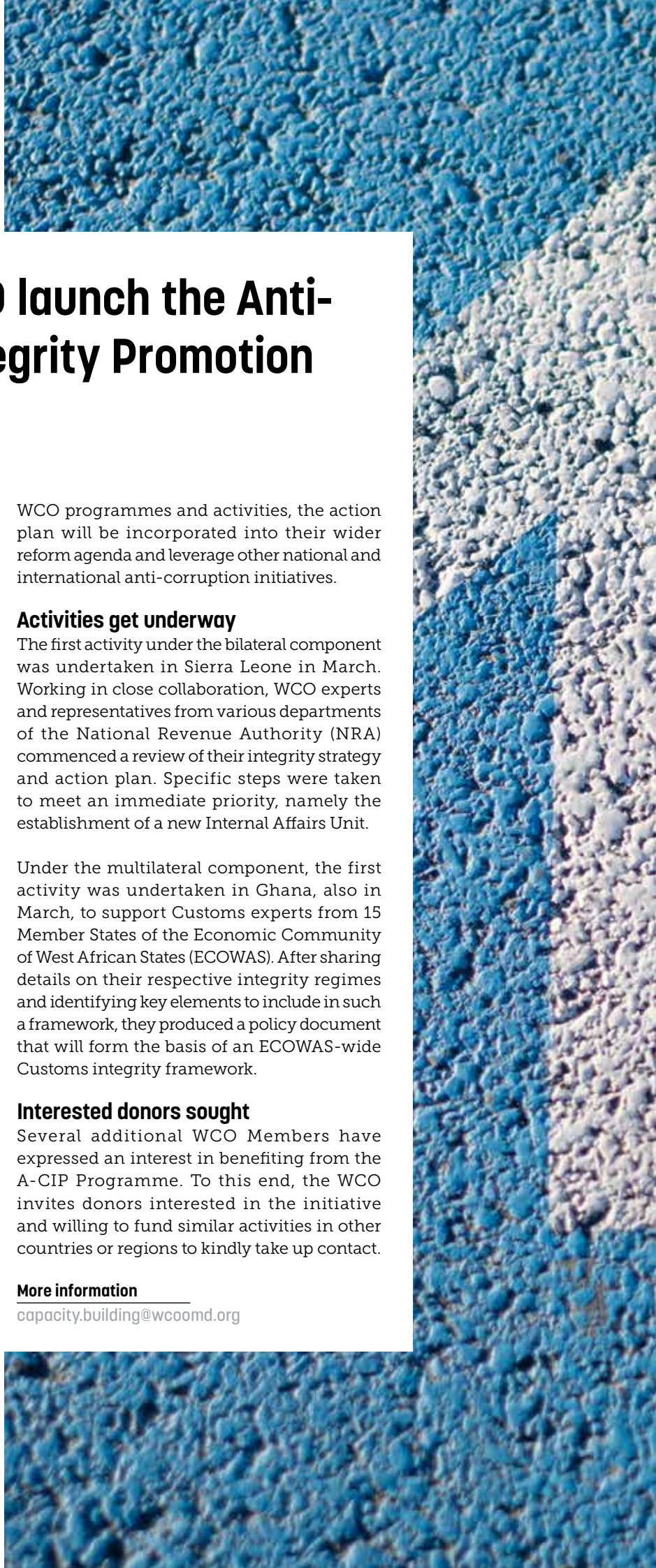

Norad and the WCO launch the Anti-Corruption and Integrity Promotion Programme

In January 2019, the WCO launched the Anti-Corruption and Integrity Promotion (A-CIP) Programme to assist selected WCO Member Customs administrations in implementing measures to combat corruption and promote integrity in accordance with the 10 measures listed in the WCO Revised Arusha Declaration on good governance and integrity in Customs.

Unpacking the programme

Funded by the Norwegian Agency for Development Cooperation (Norad), the A-CIP Programme will run for five years. It was designed around lessons learned from previous WCO anti-corruption initiatives and has two components: a bilateral component, which is country-specific, supporting specified outcomes; and a multilateral component, which is region-specific, taking ongoing regional initiatives into account.

Partner administrations and expectations

Afghanistan, Ethiopia, Ghana, Lebanon, Liberia, Mali, Mozambique, Nepal, Sierra Leone, Tanzania and Tunisia are the A-CIP Programme's initial partner administrations. Each is expected to develop a multi-annual action plan along with clear benchmarks and performance measurement criteria. As some of these countries already benefit from other WCO programmes and activities, the action plan will be incorporated into their wider reform agenda and leverage other national and international anti-corruption initiatives.

Activities get underway

The first activity under the bilateral component was undertaken in Sierra Leone in March. Working in close collaboration, WCO experts and representatives from various departments of the National Revenue Authority (NRA) commenced a review of their integrity strategy and action plan. Specific steps were taken to meet an immediate priority, namely the establishment of a new Internal Affairs Unit.

Under the multilateral component, the first activity was undertaken in Ghana, also in March, to support Customs experts from 15 Member States of the Economic Community of West African States (ECOWAS). After sharing details on their respective integrity regimes and identifying key elements to include in such a framework, they produced a policy document that will form the basis of an ECOWAS-wide Customs integrity framework.

Interested donors sought

Several additional WCO Members have expressed an interest in benefiting from the A-CIP Programme. To this end, the WCO invites donors interested in the initiative and willing to fund similar activities in other countries or regions to kindly take up contact.

More information

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A new CLiKC! platform

The WCO Secretariat is about to launch a new version of the CLiKC! learning platform, in order to provide users with a comprehensive picture of the Organization's training material and opportunities available to its Members.

This initiative follows the endorsement by the WCO Capacity Building Committee, in 2018, of a revised training strategy, which calls for the adoption of a blended learning approach that combines traditional classroom teaching practices and online technology, allowing trainers to dedicate more time to practical elements in the classroom, and trainees to have a better learning experience.

To support this shift in the way training is delivered, the new CLiKC! platform will enable its users to:

- view all the training opportunities offered by the WCO Secretariat, such as the "course catalogue," which includes e-learning courses, global and regional workshops, and other kinds of training events;
- register for online courses;
- request to be registered for classroom courses that are open to their country/region, directly on the website (national coordinators will still be in charge of managing users' accounts, and users' registration requests will need to be approved by them);
- ensure that they have the knowledge required to attend a classroom course, by completing the relevant e-learning courses in advance of the classroom session;
- keep track of their achievements and obtain their certificates online, after completing the feedback questionnaire.

Under the new system, the application and registration process for all training, including classroom-based events, will progressively become paperless. This will facilitate the administrative work involved in preparing training workshops, and enable CLiKC!-registered Customs officers and national contact points to be better informed about the opportunities offered by the WCO for developing their technical skills and professionalism.

This evolution of the platform will also feature a new, exciting and engaging design, making CLiKC! the "one-stop shop" for the training of Customs officials. While the new website will officially be launched in June 2019, features will be released progressively up to the end of the year. Comprehensive information and training sessions will be organized for the national coordinators in due course.

More information

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Towards technology-driven organizations

By Kunio Mikuriya,
WCO SECRETARY GENERAL

As Secretary General of the WCO, I am reminded, every time I visit a Customs administration and its facilities, of the various technologies used by WCO Members to improve the way they manage the flow of goods, people and means of transport, enabling them to not only meet the challenges, but also take advantage of the opportunities, presented by the 21st century border and trade environment.

There is nothing new in saying that leveraging technology is key, and there is no shortage of articles or research and analysis on why and how Customs is or should be implementing information and communication technologies (ICT). Among recent WCO contributions is the "Study Report on Disruptive Technologies," which aims to raise awareness of these latest technologies and their potential, by demystifying each of them individually.

The WCO has also developed several IT tools, which have been placed at the disposal of its Members. There is the National Customs Enforcement Network (nCEN) application, which gives Customs administrations the ability to collect, store, analyse and disseminate law enforcement information more efficiently at the national level, in order to establish robust intelligence capabilities and enhance profiling.

Another tool which comes to mind is the WCO Cargo Targeting System (CTS), which enables Customs to capture air and maritime cargo manifest data in an electronic format and analyse the collected data in order to identify high-risk shipments at import, export and transhipment across the full range of Customs threats.

I should also mention that the WCO fully supports its Members in the deployment of the Global Travel Assessment System (GTAS), a passenger targeting system that was donated to the WCO and which continues to be supported by US Customs and Border Protection. The GTAS is made available free of charge to WCO Members seeking to collect and explore passenger data, be it advance passenger information (API) or passenger name record (PNR) data.

The WCO has also developed critical standards-supporting IT tools such as the WCO Data Model for the harmonization of electronic data requirements, the Unified X-ray File Format (UFF) for the harmonization of data generated by non-intrusive inspection devices, and standards for the electronic exchange of passenger related information.

Last but not least, the WCO, has, over the years, produced a lot of guidance material related to the implementation of technologies, including the ICT Guidelines to help administrations implement the Standards and Recommended Practices contained in the Revised Kyoto Convention, the Single Window Guidelines, and the Guidelines for the Procurement and Deployment of Scanning/NII Equipment that have very recently been updated.

For this edition of the magazine's dossier, we invited some Customs administrations to share information on their initiatives related to technology. The idea being, as always, to highlight any challenges faced, to showcase those projects that will inspire others, and, of course, to communicate best practices.

Let me now turn to the actual content of the dossier. It starts with an article by Jamaica Customs, which explains how it began a journey towards full automation in 2015 that enabled the administration to build a strong partnership with other border agencies, affording new opportunities for integration and cooperation to facilitate and enhance trade.

It is followed by an article by US Customs and Border Protection on the use of biometric technology to monitor the movement of travellers exiting the United States, a task that authorities have been wrestling with for years. Technology was part of the problem, but how to integrate it into existing infrastructure at airports without driving up costs and negatively impacting airport and airline operations was a conundrum.

In an article by Indian Customs, they explain how they are using electronic sealing devices, a move that enabled the administration to reduce the risk of fraud at exports and at transit, while extending higher levels of facilitation to cross-border traders and strengthening regional integration.

The article by Cameroun Customs sheds light on how the implementation of the systematic scanning of containers at the port of Douala impacted clearance procedures, looking into the efficiency of the system, how it is perceived by trade operators, and the various issues and criticisms it raised.

The WCO Secretariat also contributed to this issue. A first article gives an update on the development of the UFF. Here, I am pleased to announce that the technical specification of this standard has been approved and will be submitted to the WCO Council in June 2019 for endorsement. WCO Members wishing to deploy the UFF in their operations should include such a requirement in their tender documents for the procurement of NII systems.

A second article looks at the potential uses of geodata for border management, arguing that Customs could, by generating geodata on their fields of interest (borders, trade, transport, logistics, taxation, corruption) and using the right tools, be in a better position to strengthen their border management role, both to secure and facilitate cross-border economic activities.

In wrapping up, I would like to sincerely thank all the contributors to this dossier, as well as all the other contributors to the magazine who took the time to share their experiences with us on various Customs and international trade issues. It has been our pleasure to produce another edition of the magazine, and we trust that you will enjoy reading all the insightful articles.

I am reminded, every time I visit a Customs administration and its facilities, of the various technologies used by WCO Members to improve the way they manage the flow of goods, people and means of transport, enabling them to not only meet the challenges, but also take advantage of the opportunities, presented by the 21st century border and trade environment.

Building partnerships with other border regulatory agencies through ICT

By Andre Williams,
CHIEF INFORMATION OFFICER, JAMAICA CUSTOMS AGENCY

The Jamaica Customs Agency is cognizant of the benefits to be derived from the introduction and use of information and communication technology (ICT) in partnership with other partnering regulatory agencies (PRAs). Such an endeavour is considered strategic and necessary for improved service delivery to private companies involved in international trade and for individuals travelling in and out of the country.

Moving to a paperless environment

Jamaica Customs' strategic shift towards a modern Customs administration took a significant step in 2015, starting with the phased implementation of the Automated System for Customs Data, ASYCUDA World. The move towards a fully automated and integrated environment was exploited to re-engineer Customs business processes in order to provide, not only online services to its clients, but also to reduce existing complexities and overlaps in import, export, transit, transhipment, and suspensive regimes.

The reform initiative entailed a partnership with 12 PRAs to operate on the new framework enabled by centralized risk assessment for concurrent electronic processing and coordinated inspections. The previous paradigm made it mandatory for clients to obtain physical signatures and stamps based on the commodity from other border regulatory agencies (BRAs) prior to clearance to indicate no interest or otherwise. This was deemed time consuming, inefficient and costly to clients. The transition to a more efficient way of service delivery was achieved through a joint review of products within the purview of multiple BRAs, in order to identify mutual interests and the lead regulatory agency where possible.

As part of the reform, an electronic Single Administrative Document (eSAD) covering all declaration regimes was introduced, which resulted in an immediate reduction in the cost of documentary compliance for clients, and in the standardization of all procedures across all Customs Offices. Supporting documents such as licences and certificates are now to be uploaded during the declaration process. A new requirement for the submission of advance cargo information also enhanced operational efficiencies by automating risk assessment, selectivity and routing of declarations with real-time notifications to the assigned Customs Officer and the BRAs.

The new way of doing business was accomplished through greater partnership between Customs and other BRAs to include extensive training and capacity building for the use of ASYCUDA World within the respective agencies, and the deployment of ICT infrastructure to enable electronic processing as deemed necessary. Additional capacity building was provided by the World Bank as it concerns the use of risk management and rationalization for reduced inspections by the BRAs. Today, Jamaica is now seeing the release of 70% of commercial cargo within six hours after payment, and 85% within 24 hours.

Paperless examination and release procedures at the various clearance points is now being piloted through officers from Customs and the BRAs who have been provided with tablets for the electronic retrieval, review, inspection and approval of declarations. The anticipated outcome is a reduction in the cost to traders and the average time taken to complete inspections and reporting formalities.

Electronic passenger processing

Within the last three years, Jamaica has experienced positive growth in the number of visitors to the country, with a record number of 4.3 million visitors in 2018, a number which is expected to increase to approximately 5 million in 2019. This has presented the immediate need for increased efficiencies in the processing of passengers, which led to the adoption of a coordinated approach to passenger processing.

The Jamaica Customs Agency and the Passport Immigration and Citizen Agency have been working jointly towards the full integration of their border management systems for the paperless processing of arriving passengers.

The electronic processing of passengers by Immigration officers currently includes the use of advance passenger information (API) as will now be the formality for Customs officers to increase the throughput of passengers while applying risk analysis for intervention where necessary. The coordinated approach between both Agencies has resulted in a holistic review of the existing operational framework and service delivery standards. This has been done to determine the scope for the increased use of automation, so as to not only improve operational efficiencies, but to also enhance the passengers' experience.

The new framework will see the introduction of the "Green Traveller Initiative" for paperless passenger declarations via the Online C5 Portal for the simultaneous submission of a declaration by the passenger to both Customs and Immigration. The Customs Agency is also taking steps to facilitate the declaration process with the introduction of a mobile application that may be used on any mobile device, while at Jamaica's international airports and cruise ship piers or prior to arrival. The portal and mobile app will be multilingual to offset the language barriers encountered when using the physical form. A key feature of this innovation is the ability to update the declaration or submission based on any changes to the passengers' itinerary and accompanying luggage. This will ensure consistency and accuracy in the declaration process.

Roving Customs officers armed with mobile devices will verify travel documents of arriving passengers in the Customs Hall. Being customer-centric and fully cognizant of the impact of the passengers' first experience on entering Jamaica, the Agency has applied itself to leveraging technology, in order to enhance its responsiveness to final processing and management of the throughput in order to reduce or ultimately avoid congestion. The Passengers' use of e-services will thus be rewarded with a simple and efficient means of processing.

In addition to providing the technology for the increased throughput of passengers, the Customs Agency will be augmenting its border protection and management capabilities through the inclusion of a smart surveillance system with facial recognition capabilities amongst other features, to identify risks to society or national security.

Electronic Single Window

Customs is the lead agency for the implementation and operation of the Jamaica Single Window for Trade (JSWIFT) project, which commenced in August 2018, and will be completed on a phased basis over a three year period. Importantly, the success of this project hinges on further partnership and successful business and service delivery reforms for other BRAs, with the first phase to include eight agencies. The second phase will, thereafter, include an additional 12 agencies for the full automation of all services related to international trade. The project will include the re-engineering of business processes to eliminate duplications and redundancies in Jamaica's trade mechanism, and in so doing,

provide a single, integrated access point for trade.

The project's key benefits will include data harmonization and standardization using the WCO Data Model for consistency across the BRAs, while reducing documentary requirements with a single point for the submission and payment of all licences, permits, certificates, and other approvals. The adoption and use of this international standard will eliminate several forms and data elements, while ensuring compatibility and data exchange across all participating agencies including Customs. Indeed, the implementation of JSWIFT will be significant to the further improvement of service delivery for cross-agency interoperability and increased trade facilitation.

Conclusion

It is acknowledged that international trade is a vital driver of economic well-being, job creation and the generation of wealth, with Customs administrations widely recognized as major contributors to trade efficiency. This is achieved by ensuring compliance with national and regulatory requirements and multilateral trading rules. Being able to fulfil Customs' core mandates of trade facilitation, revenue collection, border protection, and supply chain security is essential to enable a country to participate fully in the global marketplace.

The increased use of technology by Customs authorities will afford new opportunities for cross-border integration and Customs-to-Customs cooperation to facilitate and enhance trade. Such economies will see reduced time and complexity while improving their competitiveness in the global market through increased efficiency and predictability. The introduction and expanded use of disruptive technologies such as blockchain can provide secure access to digital transaction records for improved compliance and increased trade facilitation while reducing transaction cost and time for verification to the trading community.

While ICT is not the panacea for all international trade, economic growth and border management ills, it provides extensive opportunities improving same. The Jamaica Customs Agency began the journey towards fulfilling its vision of full automation; today, it fully embraces its journey.

Customs is the lead agency for the implementation and operation of the Jamaica Single Window for Trade project, which commenced in August 2018, and will be completed on a phased basis over a three year period.

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Biometric breakthrough: CBP's innovative approach to keeping America safe

By Marcy Mason,
WRITER, US CUSTOMS AND BORDER PROTECTION

It is 07:45 on a Wednesday morning in May at Hartsfield-Jackson Atlanta International Airport in the United States (US) and passengers are boarding Delta Air Lines flight 334 to Mexico City. One by one the passengers scan their boarding passes and approach a camera that is set up on the air bridge where they have their pictures taken before they board the flight.

The photos are being matched through biometric facial recognition technology to photos that were previously taken of the passengers for their passports, visas, or other government documentation. All is moving smoothly until the US Customs and Border Protection (CBP) officers assisting the passengers are alerted that they need to check one of the travellers.

It's a 28-year old woman, a Mexican national with a Mexican passport. The biometric system alerted the officers because when preflight information was gathered on the woman, no historical photos to match against her could be found. A CBP officer took the woman aside and looked at her passport. No visa was attached and the woman did not have a 'green card' to prove she was a lawful permanent resident. Upon further questioning, the woman admitted that four years ago, she had come into the country illegally.

Using a specially designed CBP biometric mobile device, the officer took fingerprints of the woman's two index fingers. "This was the first time that we had captured this individual's biometrics, her unique physical traits," said Bianca Frazier, a CBP enforcement officer at Hartsfield-Jackson Atlanta Airport. "We didn't have her biometrics because we had never encountered her before."

As early as 2002, shortly after the worst terrorist attack in US history, legislation was passed requiring the Department of State and the Department of Homeland Security (DHS) to use biometric technology to issue visas and screen non-US citizens entering the country. Then in 2004, more legislation was passed, authorizing DHS to collect biometric data from non-US citizens exiting the country.

According to Frazier, finding people who have entered the country illegally is common. Since June 2016, when CBP and Delta Air Lines launched a pilot programme to test CBP's biometric facial recognition exit technology, passengers like the young Mexican woman have been found daily. "Most days we find a minimum of two or three undocumented people, but sometimes we find as many as eight to 10 boarding a flight," said Frazier.

Ultimately, the woman was allowed to board the flight, but when Frazier used CBP's mobile device to take her fingerprints, it created a fingerprint identification number that is specifically tied to the woman. In the future, if she applies for a visa to return to the US or is encountered crossing the border illegally, an alert will be triggered, indicating that the woman had previously entered the country illegally and is on a lookout list. Additionally, when Frazier processed the traveller, the device automatically created a biometric exit record confirming that the woman left the US.

For more than a decade, the US government has been struggling to find a way to develop a practical and cost effective biometric entry/exit system that fulfills a congressional mandate to keep America safe. CBP has partnered with the US air travel industry to meet that goal and is implementing innovative ways of using biometric technology to provide better enforcement and a better experience for travellers.

Biometric challenge

By 2013, when CBP assumed responsibility for designing and implementing a system that could biometrically track travellers exiting the US, the government had been wrestling with the challenge for years. Technology was part of the problem, but how to integrate that technology into the existing infrastructure at airports without driving up costs and negatively impacting airport and airline operations was a conundrum.

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CBP had been working with the airlines to verify travellers entering and exiting the country since the mid-1990s, using travellers' biographic information – date of birth, passport number, document number, country of citizenship, etc. "The airlines sent us the manifest information in advance of a flight's departure," said John Wagner, Deputy Executive Assistant Commissioner of CBP's Office of Field Operations. "We did law enforcement work based on that data."

But then, after the 2001 terrorist attack, biographic information was not enough. To increase security, the US Congress passed legislation that added biometric requirements for tracking travellers. "Inbound passengers were easier to track because we already had a process," said Wagner. "When travellers come off of an international flight, they are funnelled through a secure pathway to the CBP inspection area. The airline transmits the biographic data to us. We verify that information when we read a traveller's passport and we make sure it's accurate. That's when we also collect fingerprints from most non-US citizens."

With outbound flights, collecting passengers' biometrics is much more difficult. "We've never constrained departures to be able to do that," said Wagner. "We don't have specific departure areas for outbound flights. International flights depart from all over the airport, so it was difficult to figure out where we could collect biometrics and what technology we would use."

Added to that, CBP lacked support. "The travel industry stakeholders were vehemently opposed to any of this because they thought it would cost money and it would slow people down," said Wagner. The challenges seemed insurmountable. "We were focused on where is the magic technology that is going to make this work and address all of these concerns. No one had been able to find it because it didn't exist," he said.

New beginning

Wagner and his team took a fresh start. They reached out to the DHS Science and Technology Directorate, the department's research and development arm, to learn more about the biometric technology that was available and which methods of collection would work best.

Atlanta Assistant Port Director Kevin Pfeifer (left), Delta Passenger Service Associate Walter Jung (centre) and CBP Watch Commander Marvin Chargualaf (right) discuss biometric testing on international flights (Photo: Ozzy Trevino)

Shortly thereafter, in 2014, a demonstration test lab was set up in Landover, Maryland.

"We evaluated more than 150 different biometric devices and algorithms. We put them together in different configurations and then brought in test volunteers to actually run through the process to figure out how long it took, what kind of throughput we were able to get, how well the biometrics matched, and what their performance ultimately was," said Arun Vemury, Director of the DHS Science and Technology Directorate's Apex Air Entry/Exit Re-engineering and Port of Entry People Screening programmes. "Over time, we brought in more than 2,000 people from 53 different countries of origin, who varied in age from 18 to 85. We were trying to mimic the demographics of travellers coming to the US."

One of the things that Vemury learned was that the algorithms used in facial recognition technology have become much more advanced. The algorithm is the formula that identifies the unique biometric features in a finger, iris, or face and then compares those points to corresponding areas in previously collected biometrics. "Because of the improvements in facial recognition technology, we can verify people's identities with facial recognition much more effectively today than we could even just two years ago," said Vemury.

Field testing

Concurrently, CBP was doing its own laboratory tests and conducted a series of pilots. "We ran several pilots to help us learn about the different types of biometric technology in the different environments where we work," said Wagner. For example, CBP was aware that US passports were vulnerable to fraud and thought a biometric tool could help.

After months of testing algorithms and cameras, CBP developed a one-to-one facial recognition technology that compared inbound travellers against their passport photos. "The pilots showed us that the facial recognition technology was accurate," said Wagner. "We grew confident that the algorithms were good enough to use and rely on."

CBP also built a handheld, mobile device that allowed officers to run fingerprints on departing travellers. "We tested the Biometric Exit Mobile in 2015 at 10 airports around the country," said Wagner. "It showed us we could accurately take fingerprints from a mobile device and gave our officers the capability to do law enforcement and biometric queries on a smart phone if they saw that an individual requires further investigation."

Biometric success story

As a law enforcement tool, the Biometric Exit Mobile has produced stunning results. Case in point is an incident that occurred in May 2017 at Chicago O'Hare International Airport involving two Polish nationals who were boarding a flight to Berlin, Germany. When the couple presented their passports at the departure gate, the CBP officers did not find any US visas or country entry stamps, so they decided to run a check and swiped the couple's passports.

The biographical information did not reveal anything adverse, but as a precautionary check, the officers used the Biometric Exit Mobile device to take the couple's fingerprints. The officers took the index prints of the woman first and within seconds, she came back as a watch list hit. The same occurred with the man. Both had been ordered deported by an immigration judge, but they did not leave the country.

The officers wanted to clarify what they discovered, so they reached out to a colleague. "I pulled up the woman's name and nothing came up. There was no record on her whatsoever," said Jonathan Cichy, a CBP enforcement officer who works outbound operations at Chicago O'Hare Airport. "However, when I checked her fingerprints, there was a hit, but for a woman with a different date of birth and a different identity, which she had been arrested and deported under."

Then Cichy looked at the manifest for the flight. "I saw they weren't on it. There was no record of the identities they were using to get on the plane," he said. After checking further, Cichy found that both of the Polish nationals had criminal histories with multiple identities. "But none that came up in our systems because they weren't leaving under any of those identities. Biographics alone did not tell us the full story," said Cichy.

The couple was allowed to board the flight, but not until Cichy had served them with legal papers to verify their departure and close out the deportation case. "If either one of them is found attempting to return to the US without permission, they could be prosecuted for reentry after deportation, a felony that carries a sentence of two to 20 years," said Cichy.

Decisive moment

CBP's biometric exit tests culminated in June 2016 with a pilot programme at the Hartsfield-Jackson Atlanta Airport. Wagner and his team had a breakthrough. "We came up with a way of taking the information we receive about passengers from the airlines and matching it against information we already have in our government databases," said Wagner.

Based on their research, Wagner and his team decided to use facial recognition technology. "We found that facial recognition was intuitive for people. Everybody knows how to stand in front of a camera and have his or her picture taken," said Wagner.

Aside from being quicker than other biometric methods, facial recognition has additional pluses. The physical design of the camera does not take up much space, and the equipment is not costly. Furthermore, CBP already has a collection of photos for biometric comparison. "People have already provided their photographs to the government for travel purposes," said Wagner.

But the real feat was when CBP found a way to speed up the photo matching process. "As soon as a passenger checks in with the airline, the airline tells us who is getting on the plane. At that point, we find all the photos we have of the people on the flight and we pool them, and then segment them into individual photo galleries for each passenger," said Wagner. "If there are 300 people on the flight, we find every photo we have of those 300 people. Generally, that means we will have about 1,500 pictures because we have multiple photos of each passenger."

Then, as the passenger boards the flight, he or she has his or her picture taken. That photo is compared to his or her individual gallery of photos rather than comparing it to a billion photos that are in DHS's biometric database. "The matching is done in real-time because it's a small file and it's accurate," said Wagner.

The Atlanta pilot also was designed with certain parameters. "We did not want to add another layer onto the travel process," said Wagner. "We told our stakeholders, 'We want to design something that fits within your existing operations and infrastructure. We're trying to make things easier for travellers. We don't want to add additional steps or processes.'"

Strong partnership

In a discussion with Delta Air Lines, Wagner asked if the airline would be interested in participating in a biometric pilot. "We have a very strong, long-standing, collaborative relationship with CBP," said Jason Hausner, Delta Air Lines' Director of Passenger Facilitation. "Normally, when they approach us to do something, we're in. We like to be in on the front end to provide our expertise and help shape things."

In February 2016, Delta met with CBP to develop a project plan and decided to test a flight from Atlanta to Tokyo, Japan. The pilot, which began in June, was successful, so by September, CBP decided to test another flight, this time one on its way to Mexico City. After more than a year of testing, facial recognition technology has consistently shown a high rate of accuracy. "Our percent of successful matches is in the high 90s," said Nael Samha, CBP's Director of Passenger Systems who built the architecture for the pilot's operating system.

Operationally, the pilot has performed well too. "One of the things we wanted to evaluate was the impact on our operations. Would it delay boarding? Would it impact our on-time performance? We're very metrics oriented," said Hausner. "So far, this test has not impacted us in any manner, and part of it is because of the approach that CBP has taken. They know that in order for their programme to be successful, they need to partner with us."

Industry innovations

During the summer of 2017, CBP conducted technical demonstrations of the biometric

Because of the improvements in facial recognition technology, we can verify people's identities with facial recognition much more effectively today than we could even just two years ago.

exit facial recognition technology with various airlines and airports throughout the country. "We wanted to show stakeholders and the public what this technology is, how it works, and explore how biometric exit technology can fit into airline and airport business models and modernization plans while addressing privacy requirements," said Wagner.

Some airlines are already making headway. At New York's John F. Kennedy International Airport (JFK) and in Atlanta, Delta is testing ways to combine the facial recognition technology with its boarding pass procedures. "The CBP pilot is a two-step process by design, but it seemed to us that when this is implemented across the country, it should be a one-step process," said Hausner.

In June 2017, JetBlue Airways transformed this goal into a reality and was the first airline to board passengers using biometric facial recognition instead of boarding passes. Unlike the technical demonstrations that CBP was conducting with other carriers, JetBlue proposed the pilot. The airline wanted to design its own technology and incorporate it with CBP's facial recognition matching system. "CBP was very open-minded with what we wanted to accomplish," said Liliana Petrova, JetBlue Airways' Director of Customer Experience.

The pilot, which was tested at Logan International Airport in Boston, was assembled very quickly. "CBP gave it priority and helped us do a very fast buildout," said Petrova. "Not many partnerships, even private partnerships, function as smoothly."

According to Petrova, the biometric system is part of JetBlue's strategy to remove the hassle from the travelling experience. "Passengers don't have to stop, look for their boarding passes or their IDs. The line moves faster and they don't have to wait as long," she said. "We're trying to take the anxiety out of flying and allow our crew members to interact more with customers."

JetBlue's customer feedback was positive. "The customers are really delighted by it. They think it's cool and they're having fun," said Petrova. As a result, JetBlue decided to expand the pilot with additional flights departing from Boston and JFK.

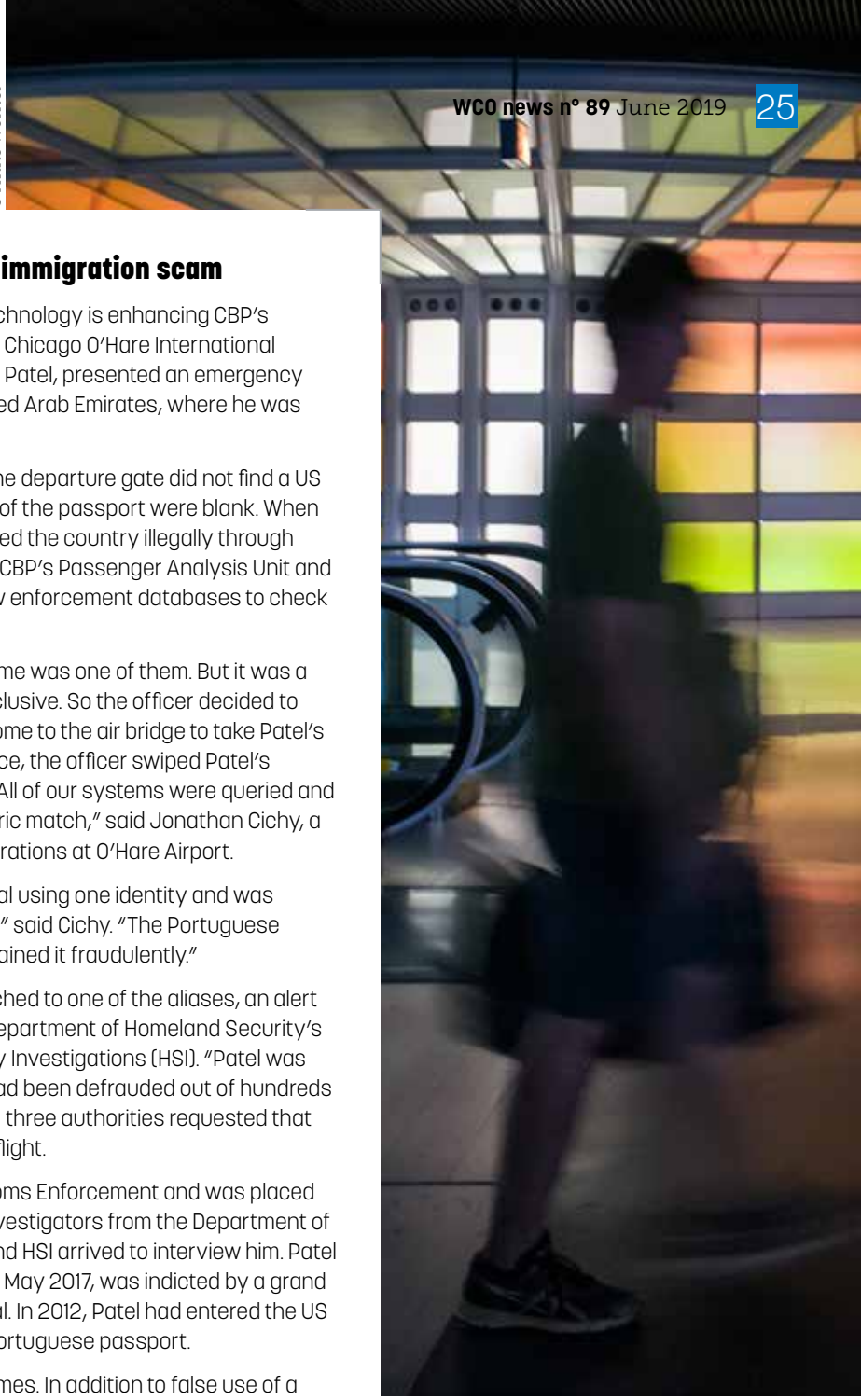
CBP's Biometric Exit Mobile device allows officers on the jetway to run travellers' fingerprints through law enforcement databases as they exit the US (Photo: Rob Brisley)

CBP's future vision for biometric exit is to build the technology nationwide using cloud computing. "There are hundreds of airports throughout the US where we provide services for international travellers and we still need to work through the deployment schedule and timeline," said Wagner. "We also need to determine the technology we'll use. We've been working with airports and airlines to arrive at some of those answers. We want them to tell us what the equipment should look like, so that it fits in with their operational needs."

Plans are also underway to update CBP's biometric inbound technology. "We'll be using the same system for our arrivals processing as we do for biometric exit," Wagner explained. But that is not all that CBP has in store. "We're also looking at communicating with people on their mobile devices as they disembark," said Wagner. "If we can give travellers better guidance on how to navigate Customs and the maze at the airport, we can increase efficiency and give them peace of mind."

More information

www.cbp.gov



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Biometrics unmask criminal in tax and immigration scam

An extraordinary example of how biometric exit technology is enhancing CBP's enforcement capabilities happened in April 2017 at Chicago O'Hare International Airport. A 38-year-old, Indian national, Dipakkumar Patel, presented an emergency Indian passport to board a flight to Abu Dhabi, United Arab Emirates, where he was making a connection to India.

While inspecting the passport, the CBP officer at the departure gate did not find a US visa, there was no US entry stamp, and the pages of the passport were blank. When questioned, Patel told the officer that he had entered the country illegally through Mexico six years earlier. The officer decided to call CBP's Passenger Analysis Unit and asked them to run the man's name through the law enforcement databases to check if he was on a watch list.

A name came back with 22 aliases, and Patel's name was one of them. But it was a common Indian name and the match was not conclusive. So the officer decided to do a biometric check and called his colleague to come to the air bridge to take Patel's fingerprints. Using CBP's Biometric Exit Mobile device, the officer swiped Patel's passport and took prints of his two index fingers. "All of our systems were queried and within seconds it came back that he was a biometric match," said Jonathan Cichy, a CBP enforcement officer who works outbound operations at O'Hare Airport.

"He came into the country as a Portuguese national using one identity and was leaving the US as an Indian national using another," said Cichy. "The Portuguese passport was legally issued to him, but he had obtained it fraudulently."

And there was more. When Patel's name was matched to one of the aliases, an alert was sent to CBP's National Targeting Center, the Department of Homeland Security's Office of Inspector General, and Homeland Security Investigations (HSI). "Patel was linked to a call centre scheme where US citizens had been defrauded out of hundreds of millions of dollars in unpaid taxes," said Cichy. All three authorities requested that CBP detain Patel and stop him from getting on the flight.

Patel was turned over to US Immigration and Customs Enforcement and was placed in a local holding facility. He remained there until investigators from the Department of Homeland Security's Office of Inspector General and HSI arrived to interview him. Patel was arrested on charges of passport fraud and, in May 2017, was indicted by a grand jury in Atlanta, where he was taken to await his trial. In 2012, Patel had entered the US through Atlanta, using the fraudulently obtained Portuguese passport.

In August 2017, Patel pleaded guilty to a slew of crimes. In addition to false use of a passport, he plead guilty to a conspiracy charge for his role in a multimillion-dollar, India-based call centre scam that targeted US victims. According to his plea, Patel and his co-conspirators perpetrated a complex scheme in which individuals from call centres located in Ahmedabad, India, impersonated officials from the Internal Revenue Service and the US Citizenship and Immigration Services to defraud victims throughout the country.

The victims of the scam were threatened with arrest, imprisonment, fines or deportation if they did not pay the money they allegedly owed the US government. Victims who agreed to pay the scammers were instructed to provide payment using pre-paid credit cards or by wiring money. Upon payment, the call centres would immediately turn to a network of 'runners' based in the US to liquidate and launder the fraudulently-obtained funds. Patel served as a runner.

"Without the use of biometrics, Patel would have been allowed to depart the US and return to his home country. He would not have been linked to any of the fraud that he committed against the US and its citizens," said Cichy. "Biometrics are a critical tool in law enforcement. They reveal a person's true identity and help us protect America."

Article written by Marcy Mason.

Improving facilitation through the use of electronic seals

By Indian Customs

India figured amongst the top 10 countries that had improved its ranking in the World Bank's Doing Business Report 2019. The most remarkable progress was made in the category "Trading across borders," where India's rank jumped from 146 to 80, the highest jump made by a country. Amongst several Customs measures explaining this evolution is the adoption of electronic seals.

To facilitate trade operations, Indian Customs allows cargo to be moved without the collection of duty and without physical inspection between ports and Inland Container Depots (ICDs) and other off-dock facilities, as well as between ports and bonded warehouses and between bonded warehouses. The same applies for international transit and transhipment operations.

Trusted exporters can also transport goods from their factories to ports without undergoing inspection or examination of cargo. Exports play a very important role in the Indian economy: approximately 2.5 to 3.5 million consignments are shipped every year, which has given rise to an annual export turnover of more than 300 billion US dollars.

Such processes and movements traditionally required cargo to be secured by affixing one-time use mechanical seals. However, though mechanical container seals have been used for many years, they have many flaws: there are no proper standards prescribed for such seals; the seals are not considered fool-proof as they do not provide reliable alerts in case of any breach; and the seals do not provide visibility on the movement of a shipment.

This led to more Customs controls, which usually translated into an increase in the transaction costs as well as transaction times, with no assurance of securing the supply chain. Against this background, Indian Customs decided to replace mechanical seals with electronic sealing devices, a move that enabled the administration to reduce the risk of fraud and security threats while extending higher levels of facilitation to traders.

Exports

On 1 July 2017, India introduced a single tax called the Goods and Services Tax (GST), which is levied on the supply of goods or services consumed in India. There is not GST on exports, and if transactions leading to exports are charged, the government would refund the money in full.

In order to offer more facilitation and reduce the chance of fraud at export, such as cargo being changed or added to as it makes its way to a port after having been sealed at the factory or the export premises, Indian Customs decided, in 2017, to require trusted traders to affix electronic RFID seals to containerized cargo at export. RFID e-seals are radio frequency devices that transmit container information when interrogated by a RFID portal or mobile reader. These e-seals enable Customs to retrieve data on the cargo by scanning the seal chip.

To save exporters the cost of having to acquire write/read devices, Indian Customs did not exercise the option of requiring data to be written into the seal. Instead, data is stored on cloud hosted platforms. Once an export shipment is stuffed and loaded onto a trailer, the exporter enters the seal number, container number, vehicle registration number and

export declaration number into a cloud hosted web application. On arrival at the port or at toll plazas en route to the port, Customs officers access the data linked to the container's RFID seal by using fixed or handheld RFID readers. The cost of the system to exporters is nominal, and so far the benefits seem to outweigh the costs.

The e-seals are tamper-evident, bringing an additional layer of security: if a seal is tampered it cannot be read or will indicate that it has been tampered. This has reduced the chances of pilferage or theft of cargo during transport, and could also help an exporter to detect pilferage and monitor cargo movements, providing all-round cargo protection.

The scheme is open to authorized economic operators (AEOs) and to exporters operating under a "self-sealing" procedure, which permits them to stuff and seal at factory premises or warehouses under the supervision of a Customs officer.

Exporters are free to source their seals from authorized vendors who will electronically provide Customs with the TID/unique serial number of the seals sold. Each vendor has developed a web application where the data is stored, and provides scanners to Customs to access information related to the e-seal.

Only Customs, the exporter and the e-seal vendor can access data from the container's e-seal, but the technology has shown great potential for use in cross-border data sharing for security purposes. The use of a cloud hosted solution technically allows a RFID seal to be read at the destination port as well as en route.

To do away with various difficulties such as field officers having to handle multiple scanners, receiving and collating data from multiple web applications and ensuring the integrity of databases, Indian Customs is developing a Universal Web Application (UWA), which eliminates the need for numerous web applications and multiple readers/scanners. As such, e-seal providers would have to ensure that the data and the e-seal are linked to a tag identification number (TID). Furthermore, the UWA will be integrated into Indian Customs' existing Electronic Data Interface System, which will allow for better risk analysis.

Going forward, Customs also intends to integrate the UWA into the existing Container Tracking System in which containers with RFID tags are scanned at locations such as toll plazas, highways, port entrances and terminals, providing cargo flow visibility and logistics efficiencies. The idea being that e-seals affixed to containers will be able to be read by the same devices. Such integration would enable containers to be tracked without any additional investment in infrastructure. This integrated approach would further improve risk management pertaining to export cargo.

The path of adoption is rather high. As of 31 March 2019, over 12,500 exporters have used approximately 1.6 million e-seals.

Transit

India is a transit country for cargo destined for and being exported from neighbouring countries such as Bangladesh and Nepal. The transit processes are based on bilateral arrangements with these countries. To secure transit operations, Indian Customs has deployed its Electronic Cargo Tracking System (ECTS), a GPS-based e-sealing system.

The ECTS allows Customs administrations to monitor the position, movement and speed of a cargo vehicle as well as the integrity of the seal during transport from origin to destination. In addition, the ECTS automatically issues "time stamps" that enable cargo evacuation times to be measured.

Leveraging the higher levels of security and monitoring ability offered by the ECTS, Indian Customs is considering introducing a simplified and more facilitative transit system. With support from the Asian Development Bank, a new procedure with reduced documentary requirements and re-engineered automated processes has been trialled.

Under this system, the shipping line, in collaboration with the Indian overland transporter, conducts the transit formalities in India and delivers the goods to, for example, Nepal. In a departure from the earlier system, the Nepal trader is not required to undertake any formalities in India. Preliminary results indicate significant savings thanks to reduced overall transit times and documentary requirements. A complete transparent system has been designed with no role for intermediaries or hidden charges.

The ECTS also supports another simplified procedure: off-border clearance. India has 114 land Customs stations, some of which have inadequate infrastructure. Under the off-border clearance scheme, regulatory processes are conducted at inland facilities (such as dry ports), with border points acting as mere "pass through" gateways. This has helped traders conduct their compliance related activities at locations close to their premises, and reduced congestion at border points.

Additionally, the ECTS is also instrumental in managing the movement of cargo originating in Bangladesh and having to go through Indian gateways to be exported. This initiative is a fine example of regional cooperation – a country accessing global markets using the gateways of another, under a facilitative and secure process.

The "track and trace" features, high security seals, advance cargo information, and the simplification and automation of processes have enhanced the risk management capabilities of Indian Customs, enabling more precise targeting and the facilitation of legitimate trade.

More information

www.cbic.gov.in

Only Customs, the exporter and the e-seal vendor can access data from the container's e-seal, but the technology has shown great potential for use in cross-border data sharing for security purposes. The use of a cloud hosted solution technically allows a RFID seal to be read at the destination port as well as en route.

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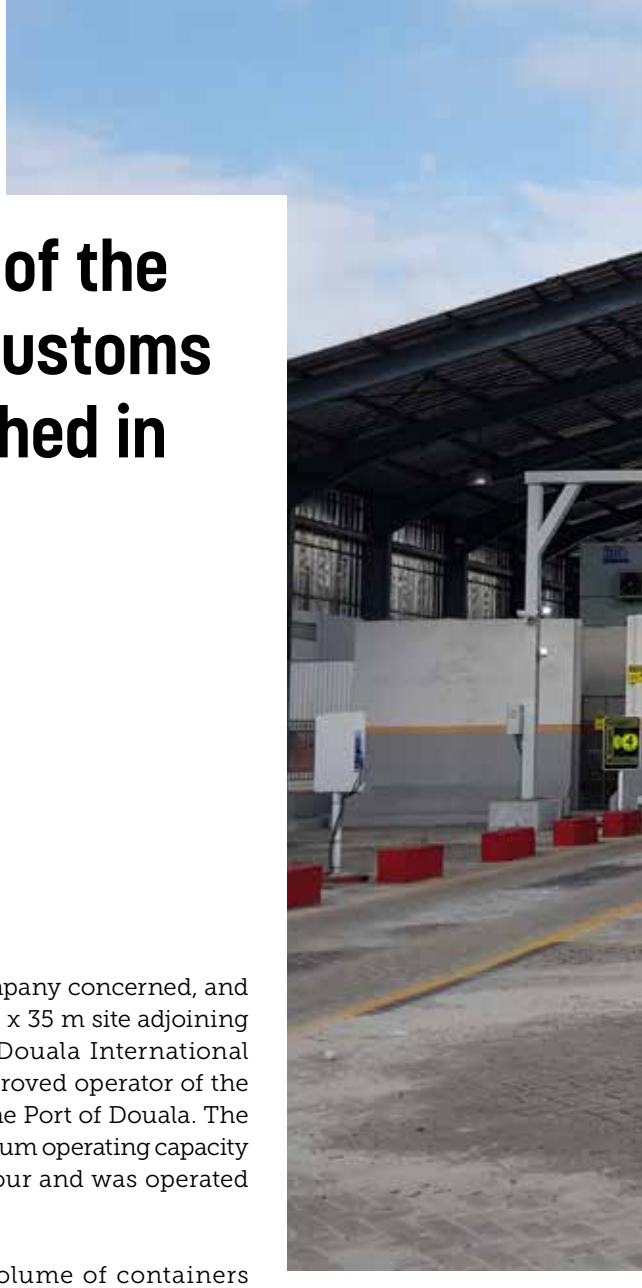


Container scanning: analysis of the mechanism's impact on the Customs clearance procedure established in Cameroon

By Cameroon Customs

In 2016, the Cameroon government opted to impose a systematic scanning policy for containers on both their import and export. This article assesses the impact of this mechanism in the Customs clearance procedure, focusing, in turn, on its efficiency, how it is generally perceived by private-sector importers and stakeholders, and the difficulties created by its implementation.

On 26 June 2006, a mobile scanner was installed for the first time at the Port of Douala, in accordance with resolutions resulting from the reform process undertaken by Cameroon Customs under which a scanning process was to be integrated into the clearance procedure for imports of sea containers. The resolutions were the result of consultations between representatives from an inspection company, the Autonomous Port of Douala (PAD), private sector undertakings and port supply chain stakeholders assembled within Cameroon's National Trade Facilitation Committee.

The key objective of deploying a scanner is to reduce significantly the time needed for inspecting containerized goods by substituting non-intrusive inspection (NII) for the physical inspection of goods, which generated extensive costs and caused multiple burdens and annoyances for importers.

Although the majority of stakeholders in the port supply chain concurred as to its necessity, the initiative generated various pockets of "internal resistance"[1] within a not-insignificant fringe of Customs officials who questioned the tool's efficiency as well as the methodology for its use in the clearance process.

This initial scanning equipment was a first-generation mobile scanner procured under an agreement between the State of Cameroon and the inspection company concerned, and was installed on a 60 m x 35 m site adjoining the container park at Douala International Terminal (DIT), the approved operator of the container terminal at the Port of Douala. The equipment had a maximum operating capacity of 20 containers per hour and was operated from 06.00 to 18.00.

The increase in the volume of containers unloaded at the Port of Douala, the recurring breakdowns of the equipment over the years, the cumbersome procedures inherent in the protocol for scanning, the need to enhance enforcement and combat large-scale trafficking, and the security issues created by the crises in the Central African sub-region and the English-speaking regions of Cameroon prompted the government to take the gamble of introducing scanning technologies that were more sophisticated and better adapted to contemporary circumstances.

Accordingly, in September 2016, three fixed scanners with a total effective scanning capacity of 150 containers per hour were brought into operation, still in the context of a partnership between the State of Cameroon and the inspection company. In a major development, the government opted to impose a systematic scanning policy for containers on both their import and export.

1 *Thomas Cantens, in his article entitled "Un scanner de conteneurs en 'Terre Promise' camerounaise: adopter et s'approprier une technologie de contrôle," published on the website www.openedition.org in 2015, illustrates the contingencies observed in the adoption and effective use of this tool by Cameroon Customs.*

In order to assess this policy's impact on the implementation of the clearance process for containers at the Port of Douala, Customs felt that it was necessary to look at the current positioning of the scanning process in the mechanism for examining containerized goods, the tool's efficiency, how it is generally perceived by private sector importers and stakeholders, and the problems created by its implementation.

Repositioning the scanner upstream of the clearance procedure

In 2006, mobile scanners had been positioned at the end of the Customs clearance procedure, and containers were subject to the scanning process only where:

- declarations were made in the red channel;
- declarations were made in the yellow channel and were subject to scrutiny by the relevant visiting inspector;
- the nature of the shipment made a physical inspection necessary, for instance, owing to a security alert being triggered;
- an accelerated procedure was under way, such as the unloading of cargo by means of hoists (from vessel to lorry, thereby avoiding any storing or depositing on the quays) and the direct unloading of cargo (from vessel to Customs-bonded warehouse under cover of a summary declaration);
- the goods were being transferred to an external Customs storage facility.

This original mechanism was heavily criticized: access to images was restricted to those officials working in the Scanning Management Unit only – with all the risks of collusion this might entail, mobile scanners operated at a reduced capacity, and the quality of the images produced was relatively poor. Lastly, and most importantly, users complained about the cumbersome process, from the initial scheduling of an appointment to the scanning operation itself, and the physical inspection ensuing in the event of cargo being suspect, an inspection which, naturally, gave rise to new costs.

The situation changed in late 2016 when the new scanners were brought into operation. Two-dimensional X-ray scanning was rolled out on a systematic basis. For imports, scanning became a prerequisite to the container's storage in the container terminal at the Port of Douala following its unloading.

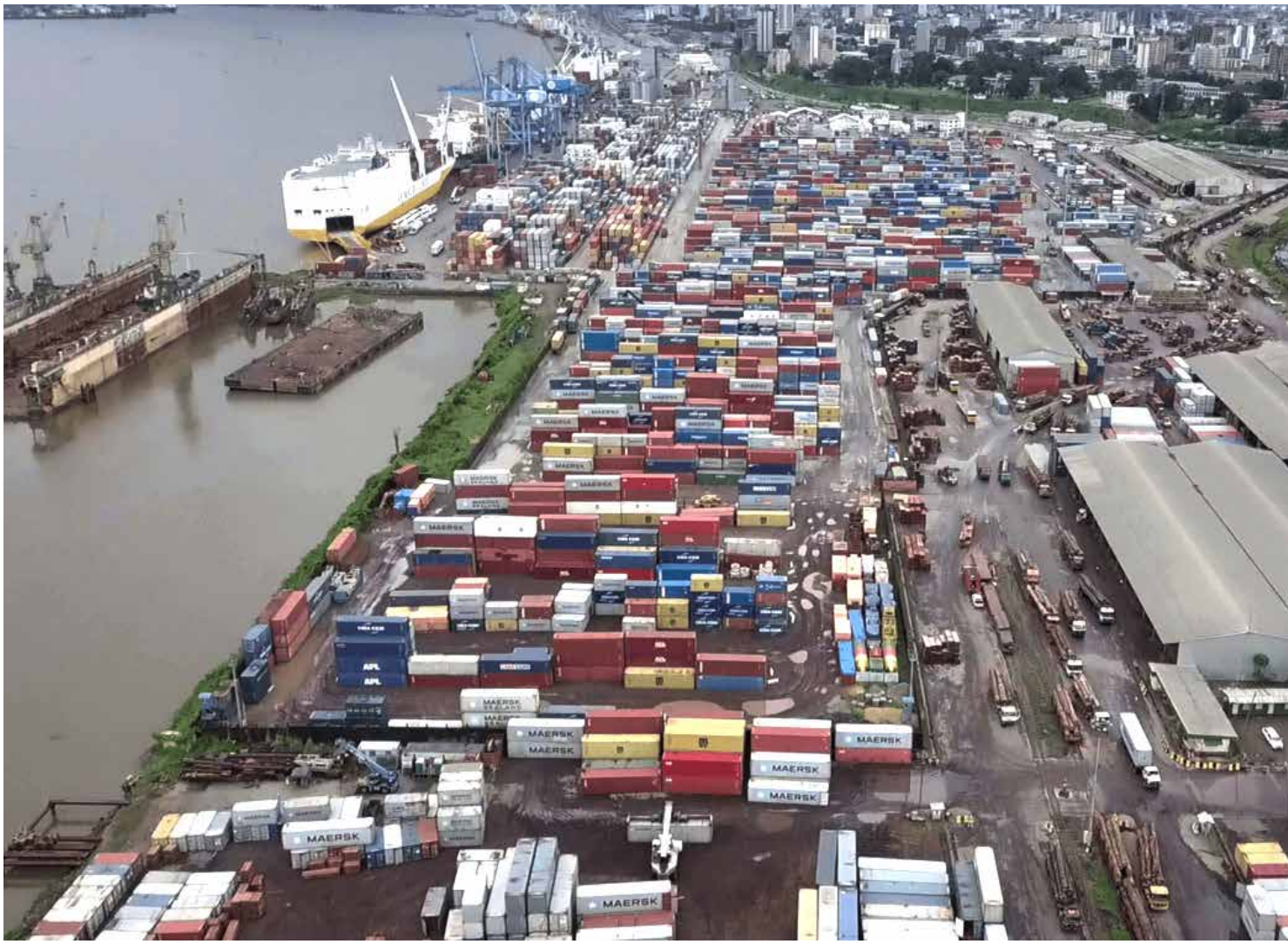
The visiting inspectors from frontline offices are systematically required to consult the scanned images before issuing a release note for the goods concerned. Having access to images uploaded onto their IT network allows Customs inspectors to take decisions more quickly. All Customs personnel have access to the image, which means that whenever a frontline inspector has taken a decision, the second-line inspector and the port authorities can refer to the instructions issued more readily.

As regards deferred inspection services, they now have access to a database allowing them to assess and carry out some cross-checks and analyses on cargo that has already been unloaded, or even to confirm suspicions raised during an audit or in the light of specific intelligence received.

According to the spokesperson for the inspection company responsible for operating the new scanners at the Port of Douala, the undertaking actually scans 35 containers per hour on average, but it could, in theory, scan 50 containers per hour. Table 1 shows the volume of non-intrusive inspections of containerized goods at the Port of Douala on import and export alike over the 2016-2018 period.

Efficiency of the new scanning approach

Although it is undoubtedly very difficult to assess and quantify accurately the efficiency of the scanning tool on the clearance process, its impact on the time taken by Customs services in processing the files for containerized goods cannot be overlooked. The results of a recent



study on the time required for goods to be imported at the Port of Douala clearly indicate a reduction in the time taken in comparison to the last study published in 2012.

As regards enforcement, systematic scanning has facilitated the detection of a number of cases involving the smuggling of heavily taxed goods (for example, wines and champagne concealed in "diplomatic" shipments) and prohibited goods (for example, the seizure of 75 kg of cocaine and undeclared weapons and ammunition in various containers registered to private individuals).

Perception by the operators

Importers and licensed Customs brokers have welcomed the pronounced drop in the number of visits made to the quayside, especially in the light of the additional costs incurred in those operations. The costs involved in import lifting, that is to say, the operation whereby containers are lowered onto the terminal site and subsequently loaded onto a means of transport, rose to 105,000 CFA francs (approx. 150 euro) for 20-foot containers and to 180,000 CFA francs (approx. 270 euro) for 40-foot containers, but these costs did not include those involved in retaining access to transport, which amounts, on average, to 100,000 CFA francs per day.

According to Nguene Nteppe, the Permanent Secretary of Cameroon's National Trade Facilitation Committee (CONAFE), which brings together public and private sector operators to address cross-border trade issues, the repositioning of the scanning procedure has had a positive effect in simplifying formalities, thereby resulting in greater procedural coherence.

Difficulties

Although the above developments appear to paint quite a rosy picture, some aspects of the mechanism for using the new scanners are still the focus of criticism.

Table 1 - Volume of non-intrusive inspections on containerized goods at the Port of Douala between 2016 and 2018

Full import		
Year	**Containers unloaded**	**Containers scanned**
2016	10,091	8,657
2017	111,393	108,919
2018	117,551	116,359
Full Export		
Year	**Containers unloaded**	**Containers scanned**
2016	7,626	not available
2017	80,395	7,896
2018	85,726	86,417

Table 2 - Scanning charges

Imports	
Container size	**Charge (CFA francs)**
20′	60,000
40′	85,000
Exports	
Container size	**Charge (CFA francs)**
20′	30,000
40′	45,000

Costs involved

The main criticism focuses on the costs involved in using the tool. Nteppe claims that systematic scanning has increased the costs of transactions, in terms of imports and exports alike, and that this rise in costs is a major concern for operators. The charges applied were not established under the normal procedure for approving port tariffs, namely where all objective factors are analysed with a view to setting a tariff that is both balanced and fair. Notwithstanding CONAFE's questioning of the Minister for Finance on this matter, this charging procedure was still not applied.

The systematic use of scanners in the clearance procedure provides many advantages, but implementing such a mechanism requires optimal collaboration between all economic operators and stakeholders in the supply chain.

The current charge imposed for scanning, set out in Table 2, is, therefore, considered to be very high and ought to be revised. That said, in the light of strong criticism from exporters and freight forwarders, it has since been amended,[2] and the scanning of empty containers is no longer subject to a scanning charge.

A further point raised by Nteppe is that the inspection charge is still at 0.95% of the FOB value of the goods concerned, subject to a minimum collection of 110,000 CFA francs,[3] whereas, at the same time as the introduction of the systematic scanning of containers, the contract binding the State of Cameroon and the inspection company under the Import Verification Programme has been revised to remove the preshipment inspection procedure.

Relations with licensed scanning service providers

The structure of the systematic scanning mechanism at the Port of Douala calls for collaboration between two separate stakeholders, namely DIT – the operator of the container terminal – and an inspection company, which holds the licence for providing the public scanning service.

Statistics for the 2016-2018 period (see Table 1) have shown how the systematic scanning of containers has not, strictly speaking, become genuinely operational:

- In terms of importing goods, one of the explanations given for the discrepancy between the number of containers unloaded and the number of containers scanned is the fact that DIT negotiated individual agreements with various stevedoring operators, so that those operators could provide port handling operations for shipments in their charge according to their tailored schedule. In the event of a failure to make handling equipment (tractors and semi-trailers, highlifters, etc.) available, scanning sometimes does not take place.

- In terms of exporting goods, there is a lack of statistics on empty containers. As already explained, the government, following negotiations with supply chain stakeholders, decided that the scanning of empty containers for export would be free of charge. However, because of the operating costs borne by the licensed provider, it no longer carries out these operations. The situation could pose risks, and, furthermore, there have been reports of one container, supposedly empty when shipped from Cameroon, being recovered in Italy with a vehicle inside.

Export procedure

The current positioning of scanning equipment is still unsuitable, given the requirements inherent in the export procedure in force at the Port of Douala. Again, Nteppe takes the view that the scanning procedure should take place outside the container terminal, for the sake of consistency with the sequencing of export procedures.

This is all the more relevant, bearing in mind that containers intended for export are conveyed to the terminal by carriers authorized by the exporters themselves or their approved Customs brokers, and that the protocols governing referral and movement inside the terminal provide no guarantee that all such containers will undergo scanning systematically prior to the exiting of the rolling stock that transported them there. Consequently, some containers are stored without being scanned and must then be subjected to further lifting, thereby incurring additional costs.

2 *See Circular No. 013 of 27 January 2017 establishing the arrangements for assessing and paying the scanning charge and Directive No. 016605/MINFI/CAB of 10 November 2017, issued by the Minister of Finance, laying down the procedures for assessing, collecting and repaying the scanning charge.*

3 *Ministerial Directive on the PVI (Import Verification Programme) of 30 November 2016.*

Conclusion

It cannot be disputed that the systematic use of scanners in the clearance procedure provides many advantages as regards both the simplification and the broader facilitation of procedures. However, implementing such a mechanism, especially in developing countries that rely on the expertise of inspection and operating companies at port terminals, requires optimal collaboration between all economic operators and stakeholders in the supply chain.

More information

www.douanes.cm

Customs and industry collaborate to develop a unified file format for non-intrusive inspection devices

By Vyara Filipova,
TECHNICAL ATTACHÉ, PROCEDURES AND FACILITATION SUB-DIRECTORATE, WCO

In April 2019, the WCO SAFE Working Group endorsed a document providing a summary of the technical specification for the proposed unified X-ray file format for non-intrusive inspection (NII) devices, codenamed the Unified File Format (UFF). Endorsement of the summary document by the WCO's Policy Commission and Council in June 2019 would close Phase 2 of the UFF Development Programme.

Background

The WCO has been leading the initiative to develop a standard NII data format since 2016. Once universally deployed, the UFF will significantly facilitate the interoperability of NII equipment supplied by different manufacturers, as well as the exchange of images within and between Customs administrations. The UFF will also be instrumental in developing the large databases or libraries of images that are, inter alia, necessary to train analysts or machines equipped with an automated detection application.

The UFF initiative is steered by the WCO Technical Experts Group on NII (TEG-NII), which is open to all WCO Members and relevant NII industry players and co-chaired by a representative of Dutch Customs and a representative of Smiths Detection. The development work is carried out primarily by a UFF development team comprising experts from four NII vendors (L3, Nuctech, Rapiscan Systems AS&E and Smiths Detection), supported by the TEG-NII Customs Co-Chair and the WCO Secretariat.

The UFF Development Programme is being implemented in three phases. During phase 1, a proof of concept project was conducted. Phase 2 then started in October 2016, its main objectives being to develop the UFF architecture, and to test and evaluate it.

UFF Phase 2 deliverables

The architecture of the UFF is outlined in a document entitled "Technical Specification of the Proposed Unified X-ray File Format for Non-Intrusive Inspection Devices – UFF 2.0." This document lists the technical details required for the implementation of a UFF in the various types of high-energy cargo inspection systems used by most Customs administrations. It also contains information on dataset flow, file structure, UFF versioning, file artifacts and data artifacts (XML data), as well as explanations covering data exchange and storage, digital signatures, archiving and UFF 2.0 dataset merging.

In addition to agreeing on the UFF 2.0 technical specification, each of the four vendors participating in the UFF initiative developed a UFF 2.0 converter and a UFF 2.0 viewer – software enabling the conversion of native NII images to UFF, and respectively the viewing of UFF images with all the tools and functions available in the original image viewing/processing software.

Testing

The development of the UFF 2.0 architecture, as well as the respective UFF converters and viewers, was completed in September 2018. An initial test of the UFF Phase 2 development was done through a pre-pilot with Dutch Customs, an ideal candidate as it operates NII systems produced by the four vendors engaged in the UFF 2.0 development.

During the pre-pilot, Dutch Customs provided native image files from its fleet of high-energy cargo scanning systems. A set of 15 images was provided to each of the participating NII suppliers. These images originated from a variety of devices, including single energy, dual energy, single view and dual view, both new and older systems.

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Each participating NII vendor was then able to process the images through their respective converters with minimal or no errors, and to open the converted images via their respective UFF 2.0 image viewing software devices. Converted images could be viewed regardless of which NII device produced the original data files. Each file converted into a UFF output provided a unified version with equal image quality when compared to its native file version. The successful conversion and viewing of the images were demonstrated to Dutch Customs.

Following the successful completion of the Dutch Customs pre-pilot, the UFF development team selected six WCO Member Customs administrations to test the UFF 2.0 architecture and the respective UFF converters and viewers developed by the participating vendors. The six administrations representing four of the WCO regions were selected from a pool of volunteering Members that had earlier expressed their willingness to be part of the UFF 2.0 pilot.

Starting on 1 March 2019, Smiths Detection and Nuctech conducted tests with the Customs administrations of Belgium and Bulgaria. As for Rapiscan Systems AS&E and L3, they worked with US Customs and Border Protection and the Customs administrations of Colombia and Saudi Arabia. Last but not least, Rapiscan Systems AS&E and Nuctech collaborated with Hong Kong Customs to have testing done with native images generated by high-energy X-ray systems deployed in Hong Kong, China. These pilots were intended to:

- confirm the results obtained during the pre-pilot with Dutch Customs;
- test the capacity of the UFF to work within the environment of different Customs administrations;
- demonstrate the value of the use of the standard.

Customs administrations submitted NII images to the respective vendor, which then converted the images to UFF and sent them back to the Customs administration that had to confirm it could view the UFF-converted images to the vendor and the WCO. Feedback showed that the quality of the converted images is identical to the quality of the native images, and that the UFF viewer tools provided the same features as the original image viewing/processing software available on the NII systems.

Going forward

Once the technical specification document is endorsed, it will be published on the WCO website, thereby closing Phase 2 of the UFF Development Programme. WCO Members wishing to deploy the UFF in their operations should include the respective requirement in their tender documents for the procurement of NII systems.

Under Phase 3, an upgraded version of the format for use by all technology providers is to be developed. The tasks for Phase 3 will be to finalize the approach adopted for this Phase, launch the standardization process, finalize and implement the UFF architecture, and address issues related to data transmission, including data security and encryption mechanisms.

Participation encouraged

Given the multiple benefits to be derived from having a UFF, the WCO would like to encourage more of its Members to consider participating in future meetings of the TEG-NII, to provide input on the further development of this global standard, and to fully support the initiative.

More information

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Potential uses of geodata for border management

By Thomas Cantens,
WCO RESEARCH UNIT

The management of land or maritime borders is different from that of points of entry such as ports or airports, where the main constraint is not the scale of the territory, but rather the scale of the flows. If time is the principle constraint in ports or airports, then space is the main challenge with respect to the governance of borderlands.

In such a context, the use of geospatial data and information, i.e. data associated with a specific location – longitude and latitude coordinates – could provide Customs officers on the ground with relevant information, which they can act upon, and which will support better deployment of resources at land borders (patrols, posts, roadblocks, etc.) and reinforce the intelligence function.

The surge in the use of geodata in recent years is linked to the development of mobile technology, the integration of GPS chips in mobile phones, and the advent of the Internet of Things, amongst others. Moreover, many spatial and military agencies have begun releasing satellite imagery into the public domain, giving rise to a significant parallel market for this type of imagery.

From a technical perspective, there are two principle tools that enable geodata to be leveraged:

- Geographical Information Systems (GIS) software collects, organizes and manages geographical data, mostly for cartography and statistical mapping, many of which are now open source[1].
- Spatial data infrastructure (SDI) is information technology (IT) infrastructure, such as servers and protocols, which underpins the collection, storage and circulation of geographical information.

Geodata in use today

State agencies use geographic tools for many purposes: to analyse land use; to plan traffic infrastructure; to monitor the environment and agriculture; to respond to disaster management; and to manage humanitarian aid or to assess development policies. Additionally, some regional initiatives have begun to feature geodata; for example, the European Commission's Infrastructure for Spatial Information in the European Community (INSPIRE) project, infrastructure built for the purposes of spatial information sharing between public authorities.

The INSPIRE project includes common standards applicable to 34 spatial data themes including transport networks, water networks, and population distribution. The information is available on an online portal, and the data is standardized and can be combined and integrated. However, no economic data related to trade, taxation or security is being collected at this stage.

Law enforcement agencies have also been using geodata for some time; two trends can be observed in this regard. On the one hand, spatial data is being mobilized for "patrimonial" purposes, often culminating in a database or an "image inventory" of that which exists in a country (archaeological sites, animal habitats or forests, for instance), and can subsequently contribute to the detection of crimes and the destruction of patrimonial property. On the other hand, spatial data can be used to better enforce laws within a territory – crime mapping, for example – to enhance understanding of the environmental factors underlying crimes and inform decision-making processes.

New applications of geodata have been identified recently by law enforcement and intelligence agencies with the rise in terrorism around the world: GIS are being used to manage responses to terrorist attacks in urban areas involving hazardous materials (the "geoevent" concept), to evaluate the likelihood of villages being involved in counterinsurgency, and to identify national trends related to incidents of terrorism, as well as critical infrastructure.

1 *See, for instance, QGIS at www.qgis.org*

Photo by NASA on Unsplash

Border management

The use of geographical tools by border agencies is relatively low, but it is increasing. In Belgium and the Netherlands, national police services have made some attempts at using geodata for transborder exercises. Some international organizations specializing in border management work are using geodata too, such as:

- the World Bank, which has established a team with GIS expertise within an entire unit focused on conflicts and violence;
- the International Organization for Migration with its Displacement Tracking Matrix, a GIS instrument to track and monitor population displacement during crises.

Within the European Union (EU), the EU Satellite Centre and Frontex, the EU agency tasked with border control covering the European Schengen Area, are using geodata to counter illicit trafficking and smuggling, and will continue to do so as this is the only way to develop a holistic representation of the border through real-time mapping.

Indeed, the use of geodata tools to control the movement of people is a trend that has been observed across the EU, which has been investing in the implementation of GIS for border guard units in countries situated along its external borders. Another trend is the merging of objectives: systems are used to fight illegal migration, as well as terrorism, drug trafficking and smuggling.

But how does Customs position itself in such a context? Customs administrations traditionally use geodata for transit purposes: GPS or RFID devices are installed on means of transport or on containers, enabling officers to monitor, in real-time, the location of goods in transit and to be informed of any incident, stop or deviation from the assigned itinerary. However, in this case, little analytical use is made of the geodata collected.

Apart from cargo tracking, the potential uses of geodata seem to be generally overlooked. A possible reason could be related to the fact that Customs envision their tasks to be primarily concerned with managing flows between major points of entry such as ports or airports. This way of thinking translates into an economic vision of the role of Customs that focuses on the major flows generated by globalization.

Encouraging the use of geodata in Customs will garner meaningful, tangible results both in OECD countries, to understand the future

of Customs in a border protection context, and in emerging and developing countries, to develop geodata-based analysis at land and sea borders, where smuggling through land borders is significant and the usual Customs approach developed in a port or airport context is no longer valid.

Potential uses of geodata by Customs

What are the various ways Customs administrations could use to leverage geodata, and what would be the potential benefits?

Different uses of geodata by Customs have already been identified:

- delineating coastal areas where clandestine crossings can be processed easily;
- optimizing the deployment of sensors at border areas;
- correlating the destinations of express freight parcels with the level of crime in a city.

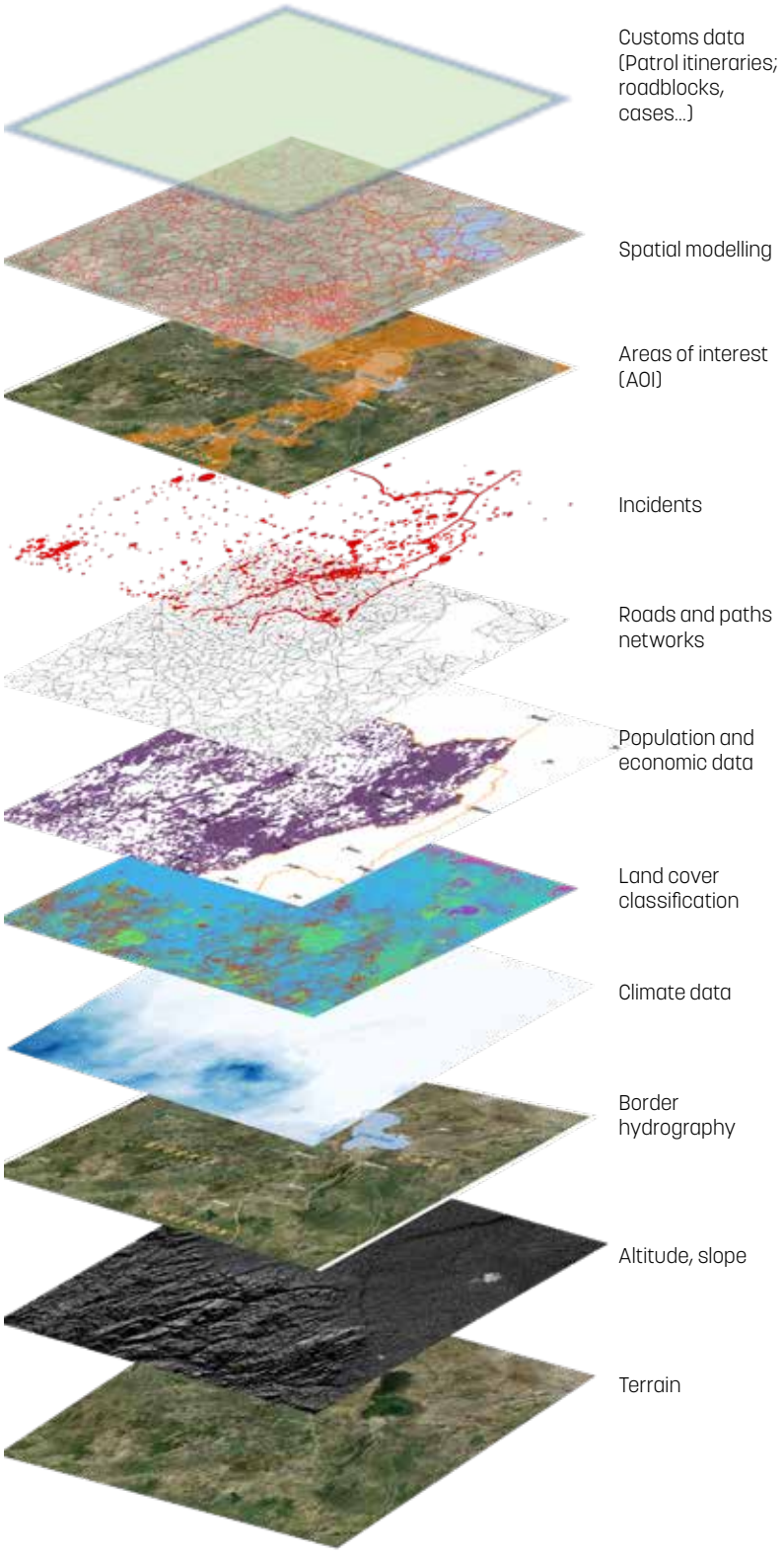
Other uses are more exploratory, but have been discussed with WCO Members, such as:

- detecting clandestine airstrips;
- optimizing patrols in insecure areas or borderlands with a high level of smuggling;
- detecting bad practices and corruption at border posts by comparing traffic information provided by satellite imagery against official statistics.

Three technologies can be mobilized:

- GIS software that collects and represents data in the form of maps;
- Internet/IT network infrastructure that enables the sharing of information and tools between a large number of users who do not need to be located in the same place, within the perspective of regional cooperation;
- Mobile technology to facilitate the real-time transfer of data and the automation of their geolocation.

These technologies can be used together or independently, depending on an administration's needs and levels of expectation. Stand-alone GIS software can be used by intelligence units to visualize data and share analyses for operational purposes (GIS software integrates major statistics software). A spatial data infrastructure, combining the three technologies, can be imagined for an operation centre collecting information and producing intelligence.



Geodata layers: Geographic information is organized in thematic data layers. As geographic coordinates are embedded in all data, this approach allows data to be input as separate themes and overlaid according to analysis requirements.

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From a border management perspective, these technologies present several advantages in terms of implementation:

- most borderlands are covered by mobile phone networks;
- mobile phone networks are largely unaffected by borders, i.e. they still emit signals a few kilometres beyond national borders, which offers an opportunity in the case of regional cooperation between Customs administrations when officers are allowed to cross their national borders in certain circumstances (joint patrols, right of pursuit, intelligence collection, etc.);
- most of the technologies, like GIS, are open source.

What type of data can be sent to spatial data infrastructure, and with what results?

- Data related to fraud cases, to enable an analysis of the environmental characteristics surrounding fraud (geographical, social, economic, etc.);
- Revenue collection data;
- The position of Customs officers, to enable better synchronization of the deployment of means of control (at national and regional levels);
- Inspection and control results;
- Incidents or suspicious movements of cargo or trucks.

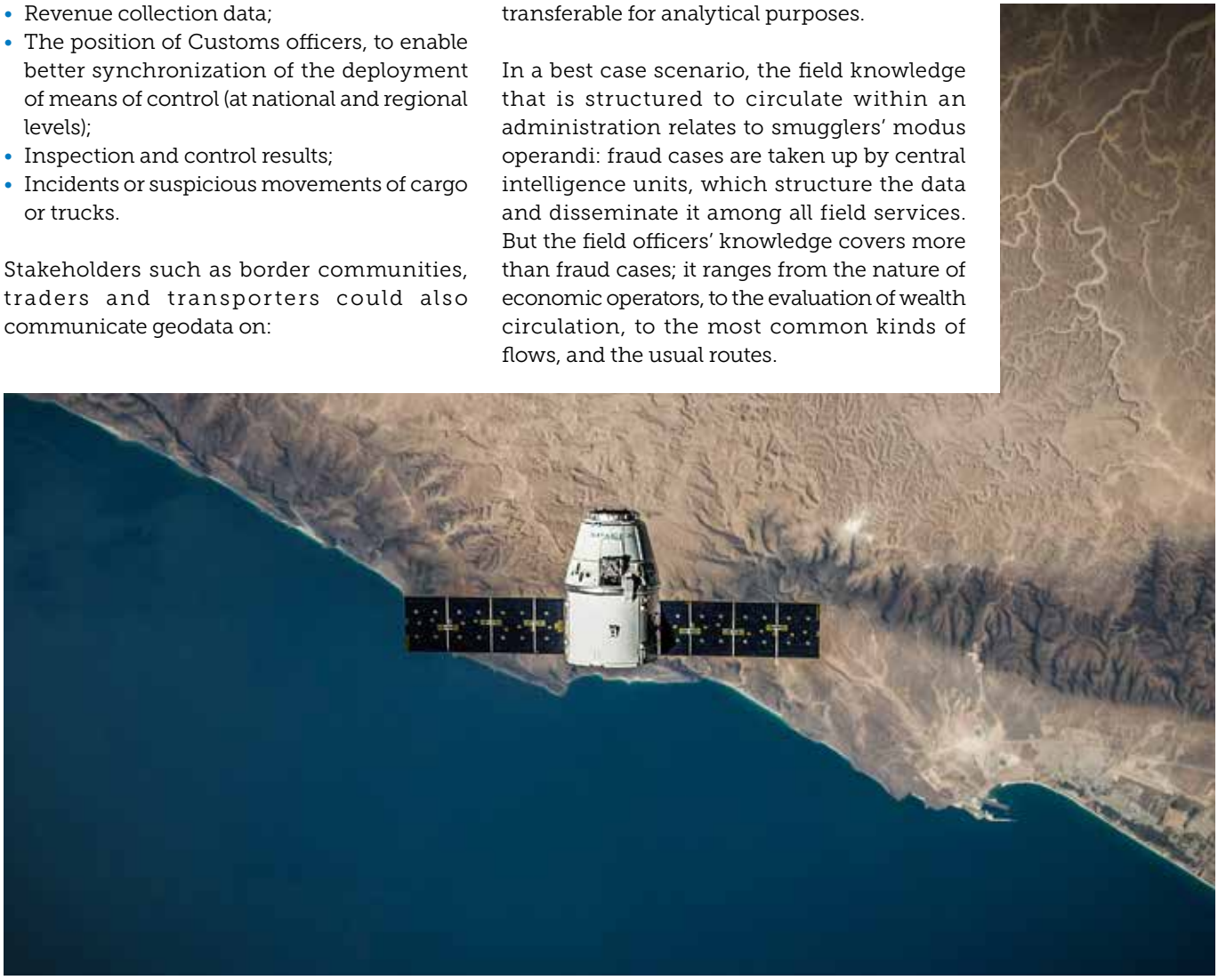
Stakeholders such as border communities, traders and transporters could also communicate geodata on:

- the presence of controls and roadblocks;
- informal and formal costs;
- abuses by Customs or, more generally, State bodies;
- suspicions regarding security threats or illegal trafficking.

The first value-add of the adoption of geodata solutions is that they fit with the professional culture of frontline Customs officers and would encourage them to share their knowledge with their headquarters. Officers have a professional culture based on territory control, particularly in remote areas where field knowledge is highly valuable for daily Customs operations.

Moreover, Customs officers already have a strong culture of measurement and statistics, but the two kinds of thinking – geographical and statistical – are utilized by different actors within administrations: whilst statistics are usually handled by central units or units positioned at headquarters, the field knowledge possessed by frontline officers is rarely "organized" to such an extent that it becomes transferable for analytical purposes.

In a best case scenario, the field knowledge that is structured to circulate within an administration relates to smugglers' modus operandi: fraud cases are taken up by central intelligence units, which structure the data and disseminate it among all field services. But the field officers' knowledge covers more than fraud cases; it ranges from the nature of economic operators, to the evaluation of wealth circulation, to the most common kinds of flows, and the usual routes.



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This kind of knowledge intuitively establishes linkages between different kinds of factors, whether environmental, economic, geographic or cultural. All this data that is intuitively collected by Customs officers in the field is not directly related to fraud cases, but it helps the officers to detect abnormal behaviours and fraud.

Geodata applications make data available in the form of maps, sometimes in real time. The visual dimension is important as it enables internal dialogue between Customs specialists with different backgrounds and cultures (analysts, statisticians, field officers and managers), and helps leaders to take decisions in real time including optimizing the presence of units in the field.

In addition, geodata solutions that mobilize regular or real-time mapping of, for instance, commodity flows, fraud, incidents, patrols and trucks, would create linkages between different kinds of knowledge in a Customs administration. Moreover, mapping data offers a great opportunity in terms of cooperation, as it facilitates dialogue with other border agencies or public actors like the police and the army, experts from different backgrounds and even different countries.

Regional integration

Another area where geodata-based solutions can have a crucial impact is regional integration. In many developing countries, regional integration is promoted via transit corridors whose strength lies in the possibilities they offer for confronting the concerns and interests of all stakeholders and in developing different schemes of cooperation between Customs (from the settlement of foreign Customs offices in a port to joint border posts or roadblocks). However, these transit corridors are, above all, a means to secure transit from a revenue perspective.

Regional exchanges are not limited to these corridors; they also exist between border communities and alongside long, historical trade routes, which are not well equipped, but enable traders to convey high volumes of commodities. Such routes play a crucial role by linking remote areas with these very corridors as well as with trade-hub cities.

The lack of knowledge and governance capacity regarding these routes may generate losses of revenue and the rise of informal governance by non-State actors, which could create conditions for economic inequalities, dissatisfaction with the State, insurgencies, and even violence. Therefore, it is crucial for Customs to monitor these routes and borderlands to facilitate legal trade, ensure trade compliance, and mitigate security risks from a regional perspective.

Conclusion

By generating geodata with applications to their fields of interest (borders, trade, transport, logistics, taxation, corruption, etc.), Customs administrations will be able to strengthen their role in border management, as an intelligence, security, policy and development actor.

Further leveraging of geodata would not represent a revolution within Customs. Indeed, this geodata relies on what already exists, augmented by a geographical dimension: instead of sharing data that is manually registered by a focal point in a national, regional or international database (like the WCO's nCEN or CEN), a spatial data infrastructure could make use of both GIS and mobile phone capacities to automate the collection, dissemination and representation of data as it relates to Customs and trade activities.

As the use of geodata is increasing, it is time for Customs administrations to renew their attention to the tools available out there, which could be of great use to them in the collection and exploration of data, with a view to both securing and facilitating cross-border economic activities.

More information

research@wcoomd.org

Overview of a potential scheme for geointelligence applied to Customs.

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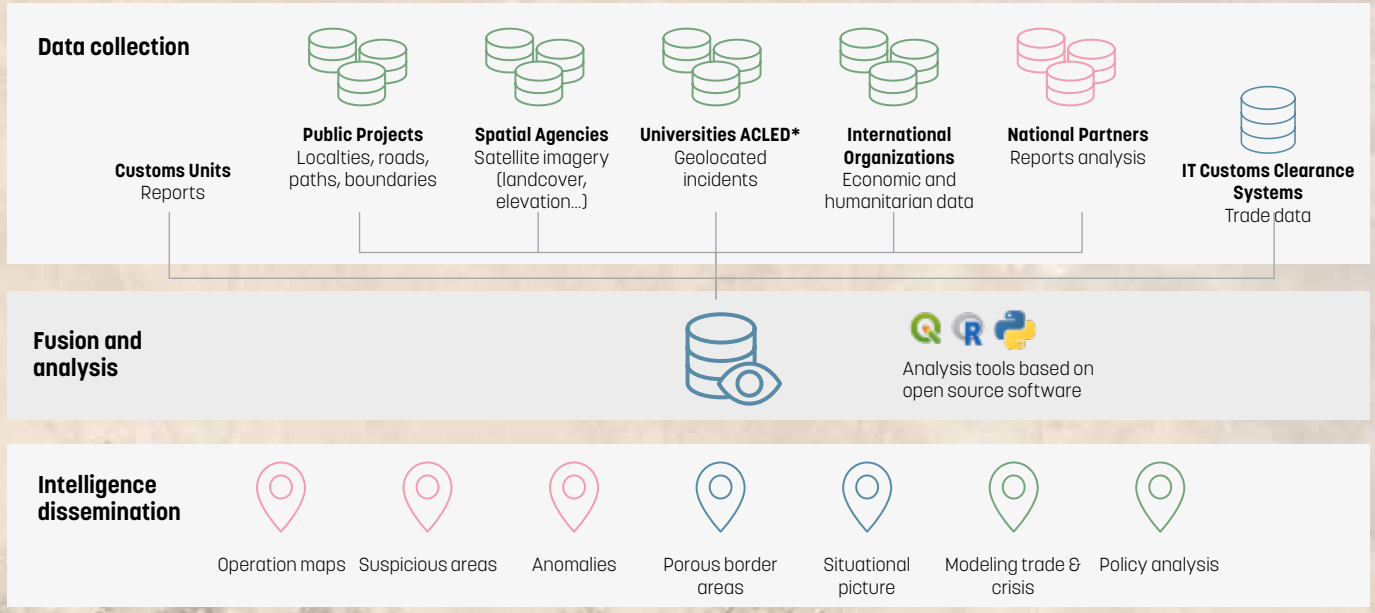

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Finland develops user-friendly duty calculator

By Päivi Maunuksela-Malinen,
SENIOR CUSTOMS OFFICER, CUSTOMER SERVICE SPECIALIST, FINNISH CUSTOMS

Finnish Customs has developed an online Customs duty calculator, enabling consumers buying goods online to easily determine the amount of Customs duty and value added tax (VAT) that they more than likely have to pay to clear their goods.

Users must first select the types of goods they are ordering, select the region where the goods originate (EU Customs territory / non-EU tax territory / non-EU), select the currency in which they bought the products, indicate the price of the goods, and indicate the transport and processing costs.

The system then calculates the amounts of Customs duty and VAT that are potentially payable, and then gives an explanation of the clearance process according to who will transport the consignment (postal operator or a carrier).

The amount indicated by the Customs duty calculator is only referential and not all categories of goods are listed by the tool. However, it goes a long way to informing users of what buying goods online involves.

This project is an example of innovative and agile development work. The development started in cooperation with university students, then a beta version of the calculator was published to get users' feedback to allow for changes before the final version was released.

In the six months after the calculator was made available online, its use has already increased more than tenfold, reaching over 65,000 page loads a month. Users have welcomed its practicality and the way search results can be easily visualized via graphics, with some comments saying "this is the best use of tax payers' money ever!", or "finally something that a normal citizen can understand."

More information

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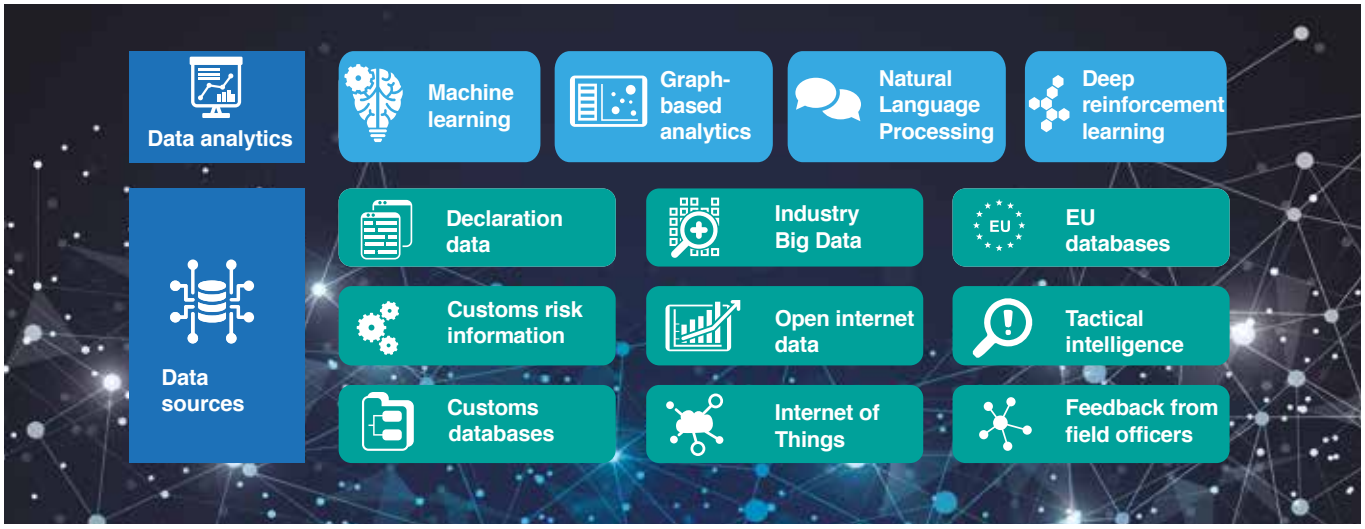

PROFILE: Enhancing Customs Risk Management

By Dr. Toni Männistö and Dr. Juha Hintsa,
CROSS-BORDER RESEARCH ASSOCIATION

PROFILE, a project funded under the European Union's (EU) Horizon 2020 research and innovation programme, aims to develop and test modern data analytics tools with a view to improving Customs risk management techniques. Ultimately, the project will facilitate and accelerate the uptake by Customs administrations of state-of-the-art data analytics, including the incorporation of new and open data sources, thereby greatly enhancing risk profiling.

Towards better risk assessment

Solutions being developed as part of the project build on machine learning, graph-based analytics, and natural language processing technologies, which will enable Customs administrations to collect and organize unstructured data, mine large datasets, make better use of control feedback and inspection outcomes, and visualize complex data sets.

The project seeks to connect Customs risk management systems that contain data usually collected by Customs to data owned by industry's "big data" providers, as well as to data available online such as product values accessible on e-commerce sites. Access to a wider range of data and customized state-of-the-art data analytics will provide Customs administrations with a better view on the risk posed by cross-border cargo flows.

The idea is also to enable systematic Customs-to-Customs sharing of Entry Summary Declarations as well as risk-relevant information, such as threat priorities, high-risk indicators and control results, through the "PROFILE risk data-sharing architecture."

Project consortium

The project brings together 14 partners from eight countries across Europe: five Customs administrations, leading technology providers, and universities as well as research institutes. The project is coordinated by the Cross-border Research Association (CBRA), a Swiss institute focusing on supply chain security and trade facilitation research and education, and a longtime partner of the WCO.

Project activities

The technical value and economic viability of solutions developed under the project are tested in real-world conditions, in what is called "living labs," in Belgium, the Netherlands, Norway and Sweden. Three living labs are under the direct management of PROFILE Customs partners:

In the Dutch living lab, a solution has been designed to collect product price information from peer-to-peer online marketplaces and web stores, and compare average prices to the

product values declared during an importation of e-commerce shipments.

In the Belgian living lab, a tool has been developed to establish risk indicators for profiling economic operators and improving current targeting models, which is largely facilitated by access to wider and better data sources as well as the use of machine learning techniques.

The Sweden-Norway living lab seeks to upgrade Customs import/export risk assessment at the Swedish-Norwegian border. This includes studying opportunities for, and barriers to, exchanging import and export declaration data as well as risk-relevant information between an EU and a non-EU country.

The fourth living lab, led by the EU's Joint Research Centre, is exploring ways in which risk-relevant data can be shared between EU Customs administrations in an agile manner. The focus is not to replace the current mechanisms of collaboration on risk analysis, but to complement them with a platform that can be used to quickly cover new needs for data sharing among any ad-hoc group of countries. Currently, a blueprint for a risk data-sharing architecture is under construction.

Each living lab follows agreed methodologies and guidelines, including guidelines related to data governance. This modus operandi will facilitate the later deployment of PROFILE solutions among the EU's Customs administrations and beyond.

More information

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Fighting illicit financial flows: Brazilian Customs' approach

By Fabiano Coelho, Lucas Rodrigues Amaral and Luciana Barcarolo,
BRAZILIAN CUSTOMS

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The role of Customs has become increasingly complex over the years. On the one hand, international corporations and supply chains actors in general have put pressure on governments to shape a new operating model at the border, based on simplifying procedures and expediting the release of traded goods. On the other hand, governments are demanding that Customs and other border enforcement entities implement more and more regulations aimed at building a fair marketplace and protecting their citizens' health as well as the environment.

Recently, the spotlight has been put on fighting trade-based money laundering and associated illicit financial flows (IFFs). As the traditional financial system has become increasingly regulated, the comparatively unregulated network of global trade has become an alternative mechanism for moving funds across borders.

There is no agreed definition of IFFs. The Mbeki Report (2015)[1] gives a broad interpretation of the term that includes practices such as abusive transfer pricing, trade mis-invoicing, and aggressive tax avoidance in its scope. According to Cobham and Janský, who wrote the background paper for the First Intergovernmental Group of Experts on Financing for Development organized by the UN Conference on Trade and Development (UNCTAD)[2], IFFs is an umbrella term for a broad group of cross-border economic and financial transactions of which the common element is not illegality, but the use of financial secrecy to remain hidden from public and regulatory view.

In addition, Cobham and Janský explain that the IFFs phenomenon is one of hidden flows, where either the illicit origin of capital or the illicit nature of transactions undertaken is deliberately obscured. Thus, as the nature of IFFs is concealment, its driver element is the financial opacity provided by jurisdictions known as tax havens or secrecy jurisdictions.

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1 *Illicit Financial Flows. Report of the High Level Panel on Illicit Financial Flows from Africa (2015). https://www.uneca.org/sites/default/files/PublicationFiles/iff_main_report_26feb_en.pdf*

2 *Cobham, Alex & Janský, Petr. Illicit Financial Flows: an overview. (2017). http://unctad.org/meetings/en/SessionalDocuments/tdb_efd1_bp_CJ_en.pdf*

Different researchers have identified trade mis-invoicing as the main channel for IFFs. Trade mis-invoicing can be defined as fraudulent cases where either the importer or the exporter – or both – manipulate the value (e.g., price, quantity, or quality) of goods in their Customs declarations. A specific form of mispricing is known as reinvoicing. Global Financial Integrity (GFI), a think tank, describes the process as follow: "Reinvoicing happens when goods are exported from one country under one invoice, then the invoice is redirected to another jurisdiction – typically a low-tax or no-tax jurisdiction (or tax haven) where the invoice price is altered, then the revised invoice is sent to the importing country for clearing and payment purposes. By artificially overpricing imports or underpricing exports, this process shifts profits out of developing countries, usually for purposes of tax evasion."[3]

Brazil's approach

In 2014, Global Financial Integrity (GFI)[4], undertook a study in Brazil, producing a report entitled "Brazil: Capital Flight, Illicit Flows, and Macroeconomic Crises, 1960-2012." One of its findings is that mis-invoicing comprises the largest proportion of capital flight from Brazil and that the deliberate under-invoicing of exports is the preferred method to transfer illicitly funds "out" of the country, or to put it more accurately, preventing funds from entering the country and being taxed there.

According to Brazilian scholar Valtair Soares Ferreira[5], who analysed the mechanisms of tax evasion and fraud on Brazil's commodity export transactions, the manipulation of transfer pricing rules and the use of "reinvoicing centres" in secrecy jurisdictions have been used by companies to reduce their tax liabilities in the country. International tax law scholar Alberto Xavier[6] also highlighted the role of offshore intermediary companies, located in tax havens, in fraud schemes based on "reinvoicing."

As evidence emerged on the magnitude of the issue, the Federal Government of Brazil established, in 2018, an Ad Hoc Working and Research Group on Illicit Financial Flows via Trade Mis-invoicing, which includes specialists in Customs, tax and intelligence, charged with identifying how best to tackle IFFS associated with international trade transactions. The Group is the first of its kind at the Federal Revenue and Customs Services of Brazil (RFB).

Measuring IFF risk exposure

The Group's experts based their work on the assumption by Cobham & Janský[7] that, as IFFs are by definition hidden, the likelihood of fraud increases with the degree of financial opacity offered by the jurisdictions involved in a given transaction: the higher the degree of opacity, the greater the risk of IFFs.

Using data from SISCOMEX[8], the experts measured the degree of exposure of transactions to the under-valuation of exports and the over-valuation of imports, according to two main indicators: the triangular or multi-layered nature of the transaction – i.e. the country of acquisition is different to the country of destination; and the degree of opacity offered by the country of acquisition/sale – transactions involving countries regarded as tax havens or with "privileged tax regimes" were considered high risk.

Transactions were categorized according to their risk exposure to IFFs as follows:

- Low-risk exposure – direct exports or imports (country of acquisition/sale = country of destination/origin) where the country of acquisition/sale is not a tax haven;
- Medium-risk exposure – triangular exports or imports (country of acquisition/sale <> country of destination/origin) where the country of acquisition/sale is not a tax haven;
- High-risk exposure – triangular exports or imports (country of acquisition/sale <> country of destination/origin) where the country of acquisition/sale is a tax haven, and direct exports or imports (country of acquisition/sale = country of destination/origin) where the country of acquisition/sale is a tax haven.

Reinvoicing happens when goods are exported from one country under one invoice, then the invoice is redirected to another jurisdiction – typically a low-tax or no-tax jurisdiction where the invoice price is altered, then the revised invoice is sent to the importing country for clearing and payment purposes.

3 *Ann Hollingshead, Global Financial Integrity, "Summary: The Implied Tax Revenue Loss from Trade Mispricing" (2010) https://www.taxjustice.net/cms/upload/pdf/GFIP_1002_Reinvoicing_-_Hollingshead.pdf*

4 *Kar, Dev. Brazil: Capital Flight, Illicit Flows, and Macroeconomic Crises, 1960-2012. (2014). http://www.gfintegrity.org/report/country-case-study-brazil/*

5 *Ferreira, Valtair Soares (2018). Fraudes Fiscales en las Exportaciones de Commodities en Brasil: uma Propuesta de Control Extensivo. Universidad Nacional de Educación a Distancia. Instituto de Estudios Fiscales.*

6 *Xavier, Alberto. Direito Tributário Internacional do Brasil.*

7 *Cobham, Alex & Janský, Petr. Illicit Financial Flows: an overview. (2017).http://unctad.org/meetings/en/SessionalDocuments/tdb_efd1_bp_CJ_en.pdf*

8 *SISCOMEX is the Brazilian Integrated Foreign Trade System and is short for "Sistema Integrado de Comércio Exterior". It is used to register foreign merchandise transactions (imports and exports), allowing the Brazilian Government to monitor foreign trade.*

Historical trend charts

Based on the pre-defined risk exposure categories, historical trend charts were compiled to analyse the evolution of risk exposure to an IFF on export transactions.

The graphic shows that, after 2006, there was a significant increase in transactions that represent high risk exposure to an IFF. This increase is mainly due to an increase in triangular or multi-layered transactions involving parties based in a tax haven.

Similarly, historical trend charts were compiled for import transactions. The graphic shows a small increase in high risk import transactions after the 2008 financial crisis, with a slight decline from 2014 to 2015. Overall, Brazilian exports are more exposed to an IFF than imports.

Types of commodities

Commodities represent 60% of Brazilian exports. As such, it was decided to analyse the pattern of financial flows according to the type of commodities being exported. They were assembled in groups such as soya beans and derivatives, orange juice, minerals and metals, etc. One of the findings is that most of the transactions of these commodities rely on triangular operations with tax havens or privileged tax regimes.

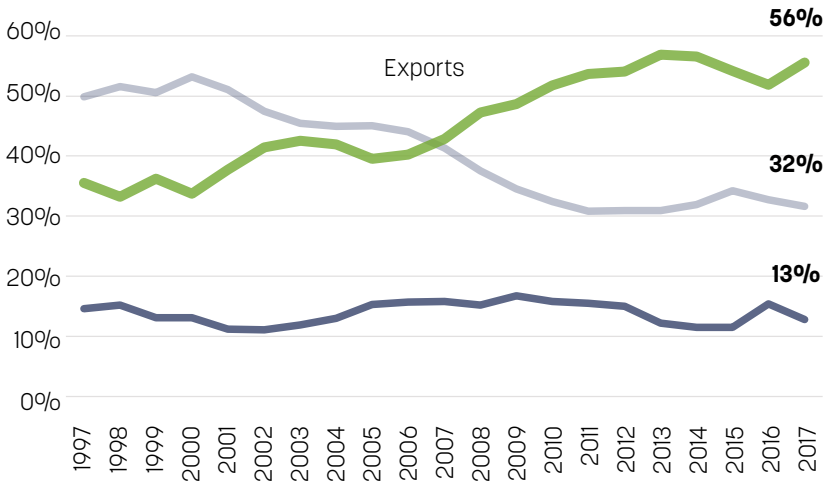
Graphic 3 shows the percentage of triangular structured transactions (Y axis) of commodities falling under the soya bean group (Harmonized System Codes 12.01, 15.07 and 23.04) according to the value of the transactions in US dollar (X axis). One can observe a concentration of transactions at the top of the Y axis. Almost 100% of transactions involving soya bean exports, especially those of high value, are triangular transactions involving tax havens or privileged tax regimes. A similar pattern was observed on export transactions of mineral and agricultural commodities.

Goods flows vs. financial flows

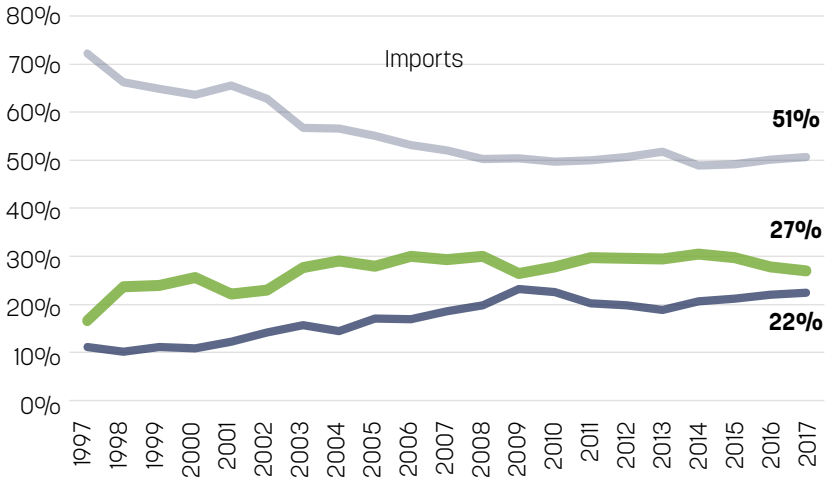
Graphic 5 lists Brazil's main "trading" partners, comparing, for each of them, between 2012 and 2017, the value flow of goods physically arriving in the country of destination as declared in the export declaration with the corresponding financial flow originating in Brazil associated with the exports.

One can see, for example, that the financial flow directed to the Cayman Islands was around 64 billion US dollars while the value

Graphic 1 - Historical trend chart of IFF risk exposure on exports



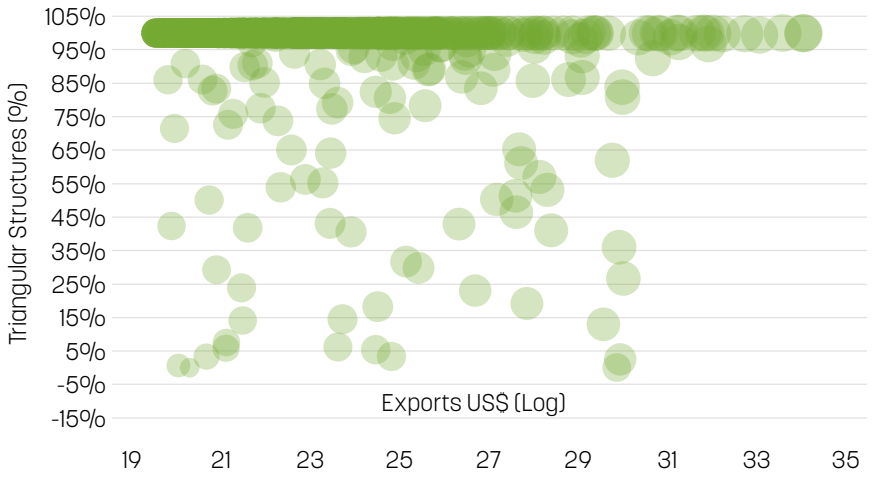
Graphic 2. Historical trend chart of IFF risk exposure on imports



of the goods that actually physically enter the Islands was less than one billion. In a pattern that can be observed in many other countries that offer financial secrecy and attractive tax conditions, Cayman-based companies sell the goods at a considerably higher price to another country during international transit or even before, often without any economic substance that justify the difference in prices. In these cases, Brazilian goods were directly shipped to different countries of destination.

This evidence suggests that triangular or multi-layered operations may have been used as a channel to transfer profits to lower-tax jurisdictions in order to reduce tax liabilities in Brazil. Secrecy jurisdictions and the lack of transparency likely played key roles as drivers of this trade mis-invoicing.

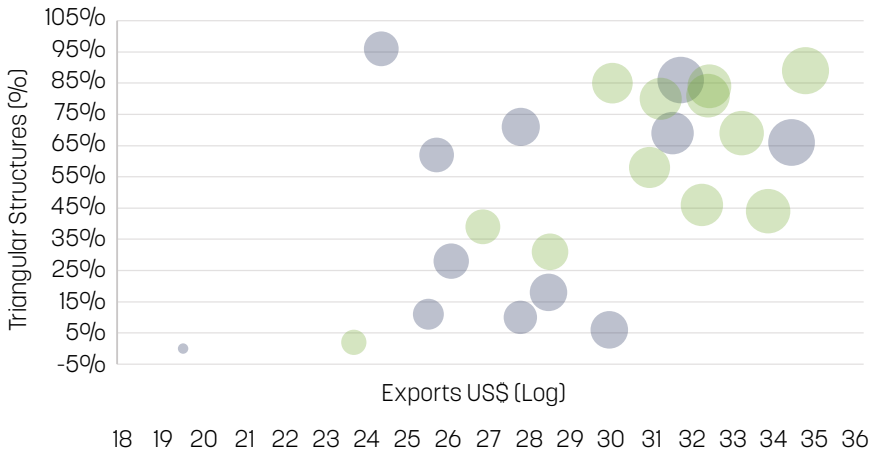
Graphic 3 - Soya beans and derivatives (HS Codes: 12.01, 15.07 and 23.04)



Bubble chart displaying the pattern of triangular transactions with tax havens or privileged tax regimes for exports of soya beans and derivatives. Year: 2017. Source: RFB

Almost 100% of transactions involving soya bean exports, especially those of high value, are triangular transactions involving tax havens or privileged tax regimes. A similar pattern was observed on export transactions of mineral and agricultural commodities.

Graphic 4 - Mineral and agricultural commodities



Bubble chart displaying the pattern of triangular transactions with tax havens or privileged tax regimes for exports of mineral and agricultural commodities. Year: 2017. Source: RFB

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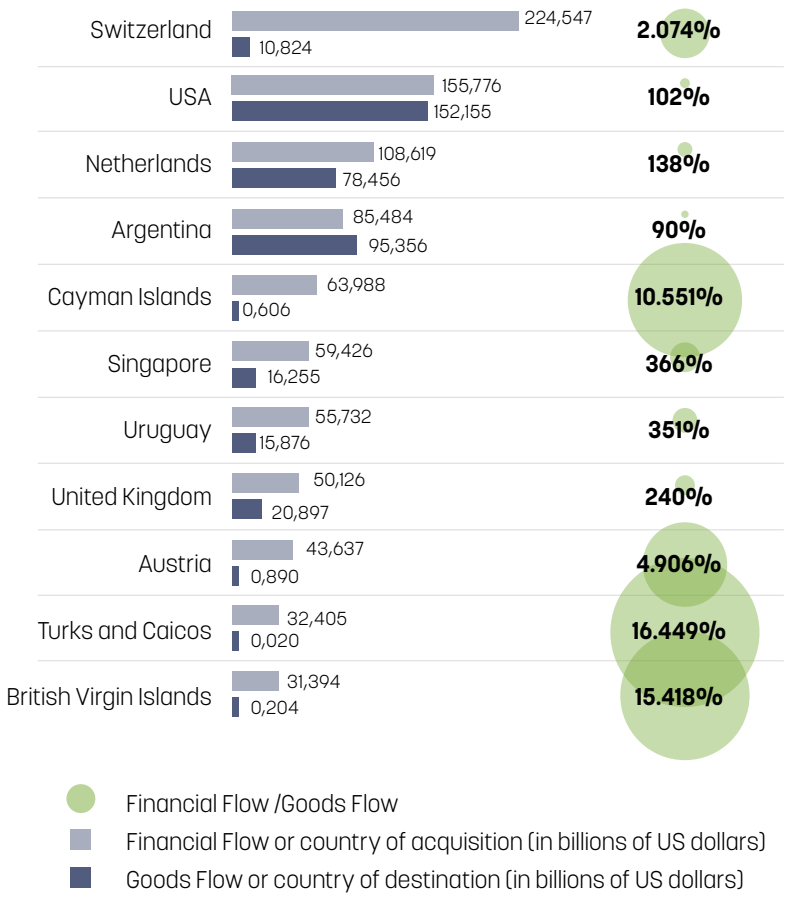
Graphic 5 - Goods flows vs. financial flows



Action plan

Although there is no indisputable methodology for calculating the amount of tax losses caused by atypical financial outflows, the relevance and economic impact of the issue to Brazil is absolutely clear. With this in mind, Brazil is undertaking various actions and intends to take a variety of other actions in its efforts to equip itself to effectively fight IFFs. Below are some of the measures that have been taken as well as others that are envisaged.

Integrated action

To identify IFF fraud patterns, Brazil has identified the need for integrated action between the internal revenue and Customs services. Customs can certainly collect information during the export clearance process and undertake post clearance audits to obtain a complete picture of the commercial operator and ascertain the quality and values of a declared transaction, including reporting to the internal revenue service in cases of doubt. Customs and internal revenue service work together to ensure that export values are correctly declared (Customs role) and that taxes on profit are properly collected and corporate tax laws are fully complied with (internal revenue role).This approach is facilitated in the case of Brazil, since both services belong to the same entity.

Risk management tool

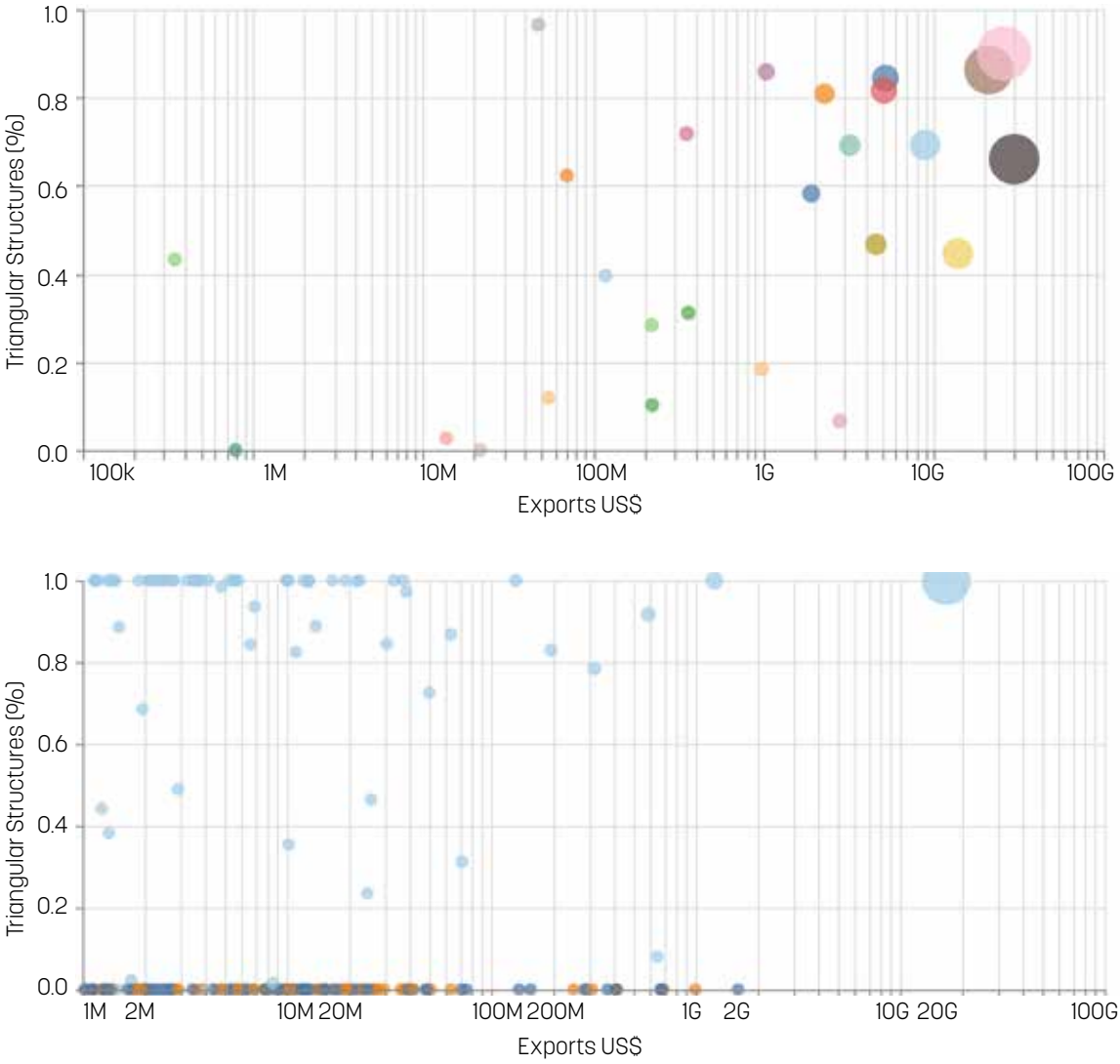
A risk management tool using graphical analysis was developed and subsequently launched. The objective of this tool, which is known as IFF-Explorer, is to enable the identification of anomalies and triangulation patterns related to IFFs in international trade transactions. The tool can be set up for application of the partner-country trade analysis method (PCM) or the price filter method, both methodologies widely applied to detect and estimate trade mispricing, and also to detect triangulation.

Data analysis and exchange of information

Further analyses to dimension the magnitude of IFFs in trade transactions still have to be carried out. One of the analysis methods we are considering is mirror trade data analysis to identify anomalies or gaps in the declared values of exports and imports on both sides of the trade flow, on the basis that these reveal illicit shifts of value. Multilateral automatic exchange of transaction-level trade data would be a key enabler here. In this regard, the Ad Hoc Working and Research Group on IFFs via Trade Mis-invoicing recommended the launch of a pilot project aimed at testing automatic exchange of transaction-level trade data with a trade partner country, based on blockchain technology.

Moreover, Brazil is a signatory to the Organisation for Economic Co-operation and

Graphic 6 - IFF-Explorer prototype



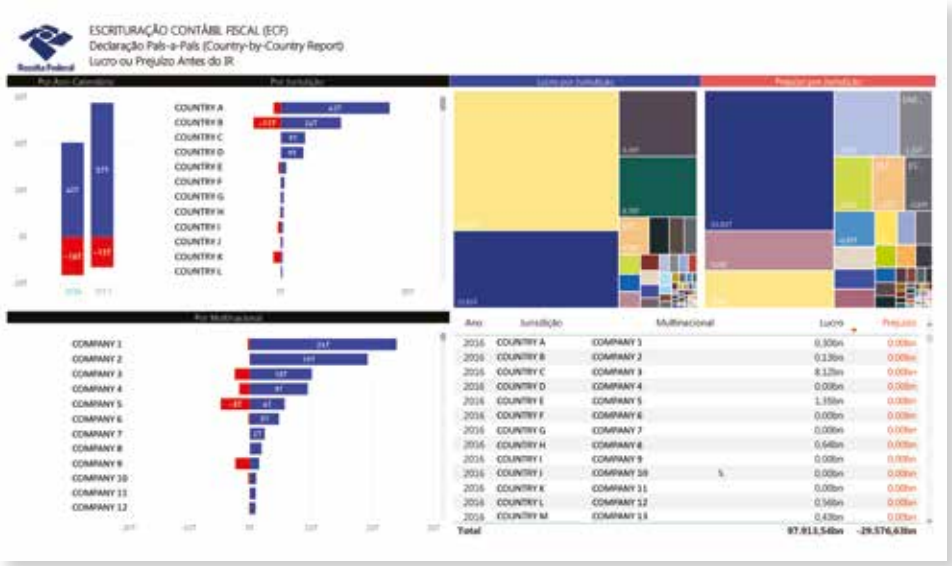
Development's (OECD) Convention on Mutual Administrative Assistance in Tax Matters and to the Multilateral Competent Authority Agreement on the Exchange of Country by Country Reports, which was based on the Convention. The Agreement enables the automatic exchange of country by country reports prepared by the "reporting entity" of a multinational enterprise and filed on an annual basis with the tax authorities of the jurisdiction of tax residence of the entity as well as with the tax authorities of all jurisdictions in which the enterprise operates. In order to better analyse the data that it will receive, Brazil Customs is developing analytical tools as the images of the prototypes demonstrate.

A risk management tool using graphical analysis was developed to enable the identification of anomalies and triangulation patterns related to IFFs in international trade transactions.

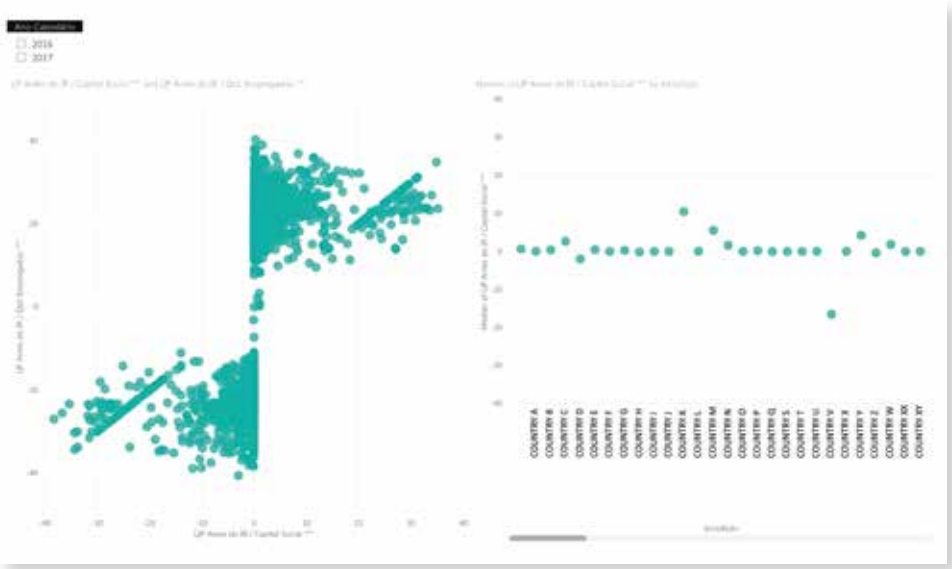
Joint tax-Customs measures

Following OECD and WCO policy recommendations and based on the work of the Ad Hoc Working and Research Group on IFFs via Trade Mis-invoicing, the RFB also

Graphic 7 - Illustrative images of prototypes under development for analysing data, using country by country reports



Graphic 8 - Illustrative images of prototypes under development for analysing data, using country by country reports



intends to set up a joint tax-Customs task force in 2019 to tackle IFFs via trade mis-invoicing, and to develop joint tax-Customs targeting, audit and compliance programmes. One of the mission of the task force will be to review penalties to make them more adequate as the penalities currently established are too strict and do not encourage companies to regularize themselves. The ultimate objective of RFB is not to sanction per se, but to seek the regularization of companies and the elimination of the use of international trade as a means of tax evasion and conduit for illicit financial outflows from Brazil.

System improvements

Regarding Customs procedures, there is a need to improve the registration and control of international trade transactions. A complete overhaul of SISCOMEX is underway, including a simplified procedures approach and the design of a fully revised flow. The new system will provide statistical analysis, and is expected to greatly improve the Customs risk analysis process.

Gearing up to meet the challenge

The RFB is in the process of building an arsenal to fight IFF schemes, including triangular schemes. While the challenge is great, Brazilian Customs believes that it is possible to combat IFFs without hindering the flow of international trade.

More information

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- TIR System

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Free zones: Georgia's experience

By Customs Department of the Revenue Service, Georgia

In terms of the WCO International Convention on the Simplification and Harmonization of Customs Procedures (Revised Kyoto Convention), "free zone" means a part of the territory of a Contracting Party [to the Convention] where any goods introduced are generally regarded, insofar as import duties and taxes are concerned, as being outside the Customs territory.

The rationale behind the establishment of "free industrial zones" in Georgia was that by offering fiscal incentives and operational or support services, the country would be able to better integrate itself into the global supply chain, while stimulating economic development, promoting international trade, attracting foreign direct investment, and increasing employment. Georgia currently has four free zones located in the cities of Tbilisi, Kutaisi and Poti.

National legislative framework

Although Georgia has ratified the Revised Kyoto Convention, it has not accepted any of its specific annexes, including Specific Annex D, Chapter 2 of which lists 21 standards covering a wide range of Customs procedures related to free zone operations. However, in establishing its free industrial zones, Georgia did largely align its legislation with the provisions of Chapter 2, with one main exception as stated below.

Article 9 of Chapter 2 states that "no goods declaration should be required by Customs in respect of goods introduced into a free zone directly from abroad if the information is already available on the documents accompanying the goods." In the case of Georgia, all transactions must be registered in the Customs automated system, including imports into its free industrial zones.

At present, the national legislative framework governing Georgia's free industrial zones includes:

- a law covering free industrial zones;
- regulations on the "assignment of instructions concerning the guarantee amount and terms for the establishment of free industrial zones and the rules of storage of goods," and the "establishment, arrangement and operation of free industrial zones";
- various articles from the Tax Code on the "establishment of instructions concerning the movement and clearance of goods on the Customs territory of Georgia";
- a decree by the Head of the Revenue Service on the "enforcement of procedures regarding the entry/exit and clearance of goods to and from the Customs territory of Georgia".

Read together, this legislation defines how a free industrial zone can be created, as well as the profile, obligations, roles and responsibilities of all parties involved, which includes the Customs Service, free zone administrators, and companies registered to operate in such zones.

For example, in terms of the legislation, an administrator is responsible for the general management and operation of a zone, and has to set up Customs crossing point infrastructure as well as provide all technical means, equipment and hardware necessary for the operation of Customs procedures and the running of Customs electronic systems. Moreover, a barrier fence (in some cases different types of barriers) must be erected around the perimeter of a zone, and Customs crossing points have to be set up at the entry/exit area of a zone.

Operational practices

Shipments entering the free industrial zone are regarded as exports, while shipments leaving the zone are regarded as exports if the destination is a foreign country or as imports if the destination is the Customs territory of Georgia. To operate in the zone, companies must acquire a licence from the zone administrator. The scope of activities allowed in such zones includes logistics, production, processing, warehousing, hardware and information technology (IT) solutions, and intangible assets (provision of services).

The Customs Service is present at the zones 24/7, and has the right to perform scheduled or random checks of the premises and inventory of companies located therein. Goods entering the zones must belong to a registered company. Imports and exports as well as transit operations between the zones are managed through the Customs automated system as well as through the Tax Administration Information System. Specific risk indicators designed to target risks most common to the free industrial zones have been fed into the Customs risk engine.

Incoming and outgoing transport operations and Customs clearances are processed according to the "one-stop shop" principle, and services such as the electronic submission of Customs documents, the remote acceptance of electronic signatures, and the payment of duties, taxes and service fees via online banking services are provided to importers or exporters. As a result, they do not need to be physically present during the Customs clearance process or other Customs procedure.

The Customs Service hardly encounters any obstacles during its various interventions, and, along with its law enforcement activities, strives to provide quality service to its free zone clients in order to reduce their costs and ensure the fluidity of their operations, thereby providing effective solutions with minimum time requirements.

Managing risks

Indeed, while most types of fraud and crime encountered elsewhere by Customs can also be encountered in these free industrial zones, some are very specific to the zone environment, thus requiring specific vigilance. In general, three types of fraud have been identified in the field:

- Smuggling risks (evasion of duties and taxes);
- Clearance fraud (misevaluation, misclassification, origin fraud, etc.);
- Entry of prohibited goods (narcotics, psychotropic substances, weapons, goods infringing intellectual property rights, etc.).

Smuggling risks for imports are especially high, due to the fact that goods placed in free industrial zones are exempt from Customs duties. For example, goods may enter the Customs territory illicitly to avoid payment of duties and taxes and vice versa, or when

The Customs Service is present at the zones 24/7, and has the right to perform scheduled or random checks of the premises and inventory of companies located therein.

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some inventory or production process is in place, certain types of goods might be smuggled into the zones without being declared to Customs.

Risks at export are also high. Given Georgia's geographic location between west and east, the free industrial zones in the country are at risk of being used by international drug trafficking networks, providing them with the opportunity to disguise the initial departure country of their illicit goods, thus decreasing the risk of inspection at subsequent locations en route to the actual destination countries.

Consequently, inspectors focus on misevaluation, violation of rules of origin and misclassification, especially during the import process, feeding the Customs automated system with specific risk criteria related to the type of goods, vehicles and individuals. Should suspicions arise, physical checks of inventories in the premises will be undertaken, in order to identify the nature, quantity and quality of the goods.

In addition, operations can be monitored 24/7 via video surveillance, and a variety of tools such as weight control scales, metal detectors, and narcotics identification and test kits are at the disposal of Customs officers. While these tools are a great enabler in efforts to fight fraud and crime, the analytical skills and profiling capabilities of officers are critical to achieving success.

Examples of seizures made at Georgia's free industrial zones include declared medicines found to contain illicit psychotropic and narcotic substances that were denied entry and later returned to the country of departure, and commercial goods (e.g., electronic hardware) as a result of attempts to smuggle them into the Customs territory to avoid payment of duties and taxes, the perpetrators of which were handed over for prosecution. Other seizures that have been made were the result of Customs declaration violations and administrative violations (e.g., weight control or seal integrity).

Working together

As one of the key players in the free industrial zones, Customs is fully aware that not much can be done without building a strong partnership with zone stakeholders. Therefore, industry outreach is one of the key components of its work, the objective being to enable Customs and business entities to share information and work together towards solving any problems and challenges.

Whenever companies registered in the zone wish to make a transaction, but are unsure of the regulation applying to the operation or need further information, they know that they can approach Customs for guidance. Within the scope of competence, Customs is able to provide solutions and guide companies on how they should proceed. This is considered Customs' "preventive analysis" approach, where problems are solved before they occur. Such an approach has become an integral part of the Customs and business working environment.

By developing a professional relationship with companies operating in the zones as well as with the administrators, Customs has been able to prevent violations of the law and increase compliance. In practice, this endeavor has enabled smooth and effective workflows within the zones to be created, and reduced the number of irregularities and violations.

Instead of a polarized free industrial zone environment, with each actor only perceiving its own goals and disregarding the interests of others, Georgia has found the ideal solution: all actors working closely together to ensure the success of the zones, which contribute to the country's economic objectives and ensure Georgia's full integration into the global supply chain.

More information

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Illicit trade in waste: it is time to raise the alarm and mobilize

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According to the United Nations Environment Programme, the continent of Asia is the world's largest dumping ground for illegally traded waste. The region also grapples with the enormous amount of plastic waste it generates on its own, which has already wreaked havoc on local ecosystems. In fact, a 2017 Ocean Conservancy Report[1] noted that China, Indonesia, the Philippines, Thailand and Vietnam have been dumping more plastic into the oceans than the rest of the world combined.

The situation in the region has worsened somewhat, following China's decision last year to ban imports of any plastic scrap that was not 99.5% pure, with many exporters now diverting their waste to Southeast Asian countries where they have found new buyers.

Some countries reacted by taking drastic measures. In May 2018, Vietnam temporarily banned plastic waste imports after a surge in trash shipments, caused by China's ban, congested several of their ports. Two months later, Malaysia permanently stopped the issuance of import permits for plastic waste.

Despite and in contravention of international and national regulations, large amounts of waste continue to be unlawfully exported, as recent events in the Philippines show.

Scale of the issue

A growing number of waste shipments reach the Philippines each year. Some contain legitimate waste that can be recycled, but others are made up of garbage and general household trash fit only for incineration or landfill sites.

The Bureau of Customs is extremely concerned about this trade and how it can be stopped. To give one an idea of the scale of the issue in the country, five instances of the illegal importation of garbage and general household waste are cited below:

One of the 103 containers that arrived at the Manila International Container Terminal from Canada in 2013 with its cargo declared as recycled plastic scrap, but actually consisting of plastic bottles, plastic bags, newspapers, adult diapers, and other household garbage

- From June to August 2013, 103 containers arrived from Canada in six batches at the Manila International Container Terminal. The cargo weighed 2,500 metric tonnes and was declared as recycled plastic scrap, but actually consisted of plastic bottles, plastic bags, newspapers, adult diapers, and other household garbage. The cargo remains unclaimed up to this day, and was finally re-exported back to Canada on 31 May 2018, almost six years after its arrival.

- In January 2017, cargo originating in South Korea declared as wood chips (1,700 metric tonnes) and recycled synthetic resin (2,500 metric tonnes) with a total weight of 4,200 metric tonnes arrived at the port of Cebu. The cargo was in fact found to be different kinds of plastic such as plastic bags, low density polyethylene and solid plastics like toothbrush handles and food wrappers. Part of the cargo, which had not yet been

1 *https://oceanconservancy.org/wp-content/uploads/2017/04/full-report-stemming-the.pdf*

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unloaded from the vessel (2,500 metric tonnes), was returned to South Korea.

- In July 2018, cargo arrived from South Korea at a private port in the Municipality of Villanueva. It was declared as plastic synthetic flakes, but was actually heterogeneous household waste. A re-exportation order was issued in December, but the garbage is still languishing in the importer's premises.

- In October 2018, cargo arrived from South Korea at the Mindanao International Container Terminal. It consisted of 51 containers weighing 1,500 metric tonnes declared as plastic synthetic flakes, but actually consisted of heterogeneous household waste such as paper scraps, rubber, bottles, cellophane, aluminium tins, electrical wires and rubber shoes. The shipment was apprehended by Customs in the docking area, and was not able to leave the terminal until its re-exportation in January 2019.

- In February 2019, a container arrived from Hong Kong-China at the Mindanao International Container Terminal. It was declared as assorted electronic accessories, but actually comprised heterogeneous household waste. The shipment was apprehended at the docking area, and was not permitted to leave the terminal until it had been re-exported. A seizure and detention warrant was issued on 5 March 2019, and the container was re-exported on 3 June 2019.

None of the importing companies involved in the cases mentioned above had an import permit allowing them to import household garbage into the Philippines, and all of them misdeclared their shipments.

International framework

Canada, Hong Kong-China, the Philippines and South Korea are all Contracting Parties to the Basel Convention on the Control of Transboundary Movements of Hazardous Waste and their Disposal. The Convention defines what must be considered as "hazardous" waste and allows its 186 Parties to complete their own respective list of wastes considered hazardous under their national legislation. It also recognizes the right of Parties to set their own requirements concerning transboundary movement procedures applicable to such waste (Art. 3.1).

Additionally, the Parties are forbidden from exporting waste classified as hazardous to another country without prior consent, and have the right to refuse imports of waste classified as hazardous (Art. 4.1). The Country from which the waste originated is responsible for returning the waste to its port of origin "within 30 days from the time the State of export has been informed about the illegal traffic." The Convention also states that the obligation for such waste to be managed in an environmentally sound manner "may not under any circumstances be transferred to the States of import or transit."

Bilateral agreements

Philippine Customs has bilateral cooperation agreements in place with each of the cited exporting countries, with each party having committed to provide support and prevent the entry of illegal goods. However, authorities at export do not play their part, as can be seen from the five examples of illegal entry mentioned earlier in this article. These illegal importations were detected, thanks

to local intelligence networks and not from strengthened collaboration between Customs administrations.

The authorities of both exporting and importing States should work in unison to detect illicit operations and prosecute the companies and individuals involved in this trade. Intelligence should be collected and risk indicators identified on both sides. One could even imagine countries undertaking joint risk analysis, interdictions, investigations, operational activities, and controlled deliveries. Such cooperation would certainly improve efforts to combat this illegal trade.

Data and intelligence

As the WCO pointed out in an article published in the February 2019 edition of this magazine, "There is still not enough data available to get a clear picture of illicit international waste flows. In order to identify trafficking trends as accurately as possible and enhance risk management, countries must register their seizures in their national enforcement database, as well as in the WCO Customs Enforcement Network (CEN) database. Such data will enable the targeting of Customs and law enforcement operations to be refined, whilst providing qualitative intelligence."

Fighting transboundary crime is something new in Philippine Customs. Consequently, the administration does not have a national enforcement database for collecting, analysing and sharing information on offences and offenders, and has not built risk profiles of companies likely to get involved in illicit trade. However, seizures made at the Mindanao International Container Terminal were reported to the WCO Regional Intelligence Liaison Office for the Asia/Pacific region so that this information could, in turn, be reported to the WCO and its Members.

When it comes to national interagency cooperation, representatives of Philippine Customs and the Department of Environment and Natural Resources regularly meet to address illegal waste importations. However, to gather intelligence for targeting purposes, coordination between Customs and environmental agencies at the national, regional and international level must be vastly improved. Ideally, the people charged with coordination at the various levels should be empowered to expeditiously decide who should be appointed in each country. Such coordination should include enhanced communication and cooperation, as well as the mandatory sharing of data and intelligence.

Possible solution

The continuing illicit entry of garbage and hazardous waste is proof that more needs to be done to fight this trade. One possible solution could be the establishment of an international commission or regional commissions, even binational commissions, tasked with fighting transboundary environmental crime.

Given the scale of the illicit trade emanating from South Korea, a Philippines-Korean Anti Waste Commission could, for example, be established to ensure that enforcement services at Philippine ports are properly trained and equipped to detect illicit importations of waste, enabling such waste to be swiftly repatriated to the country of export.

Such commissions should be composed of dedicated representatives from both the public and private sectors and, besides enforcement, should also carry out public education programmes and, more importantly, work on how to improve global waste management on both sides of the equation.

Opinions expressed in this article are those of the author and do not necessarily reflect the official views of the Government of the Philippines or its Bureau of Customs.

More information

www.basel.int
www.unenvironment.org/explore-topics/chemicals-waste

Calendar of Events

SEPTEMBER

2 - 5	Revised Kyoto Convention Working Group
2 - 6	Data Model Project Team
10 - 13	SAFE Sub-Groups
16 - 17	Harmonized System Committee, Working Party
18 - 27	Harmonized System Committee
30 - 1 Oct.	WCO Counterfeiting and Piracy Group

OCTOBER

API/PNR Contact Committee (Members only)	2
API/PNR Contact Committee	3 - 4
Global Communications Conference	8 - 9
Revised Kyoto Convention Management Committee	10 - 11
Revised Kyoto Convention Working Group	14 - 18
Private Sector Consultative Group	21 - 22
PICARD Conference (Skopje, North Macedonia)	22 - 24
SAFE Working Group	23 - 25
Permanent Technical Committee	28 - 30

NOVEMBER

4 - 8	Technical Committee on Customs Valuation
11 - 12	Information Management Sub-Committee
13 - 14	Technical Experts Group on Non-Intrusive Inspection
19 - 20	Global Conference on Origin (Iquique, Chile)
21 - 22	Working Group on Revenue Compliance and Fraud
25 - 29	Harmonized System Review Sub-Committee

DECEMBER

Policy Commission	2 - 4
WCO/UPU Contact Committee (Berne, Switzerland)	9 - 11
Revised Kyoto Convention Working Group	9 - 13
Security Conference	10 - 12

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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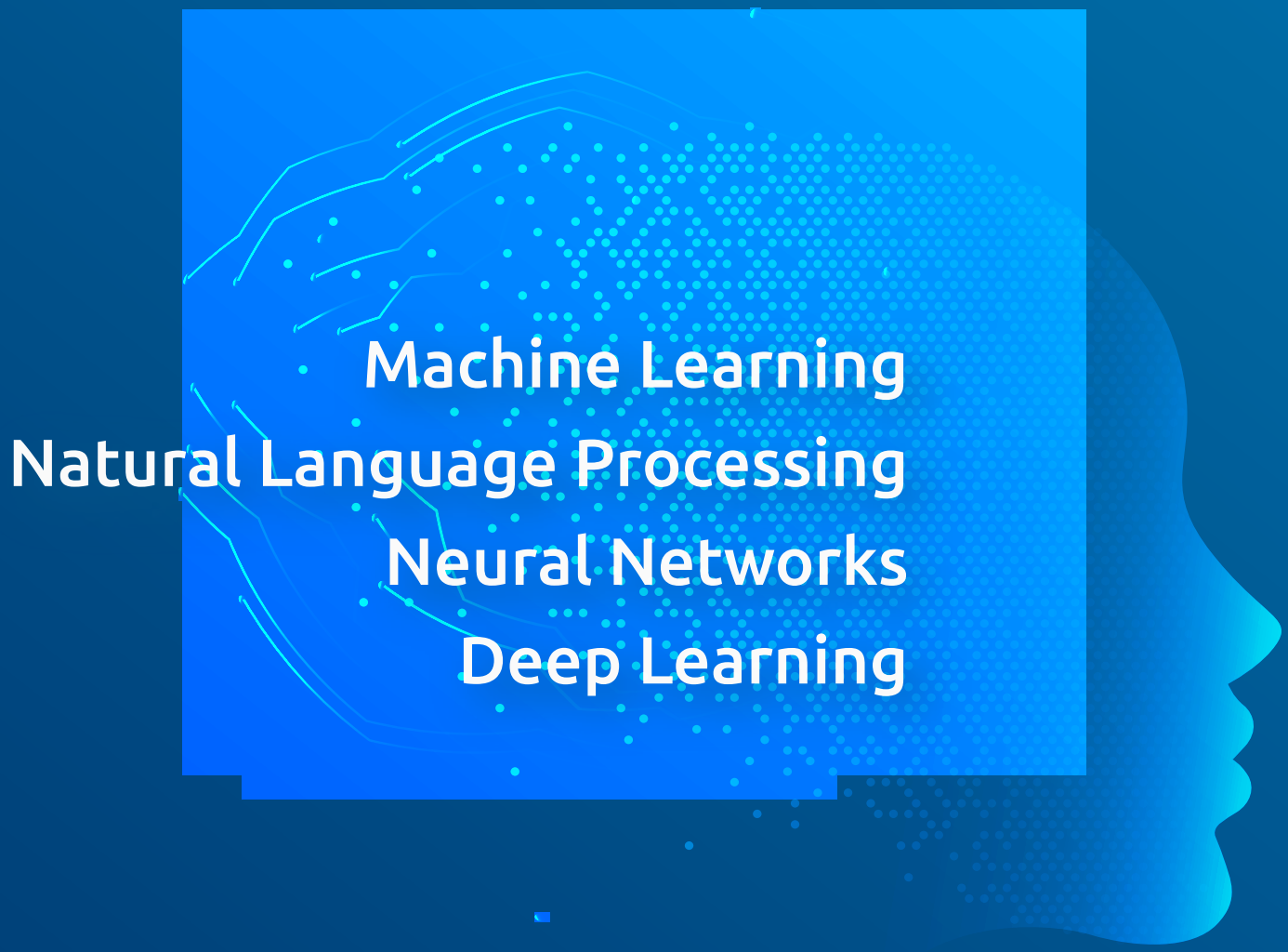

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