



Brussels, 20 January 2019.

WCO THEME OF 2019

SMART borders for seamless Trade, Travel and Transport – Panel discussion

(Item XIV on the Agenda)

I. Introduction

1. The WCO has devoted the year 2019 to the swift and smooth cross-border movement of goods, people and means of transport, with the slogan “**SMART borders for seamless Trade, Travel and Transport**”.
2. Customs, working with other border agencies, plays a pivotal role in facilitating trade and travel, in simplifying, standardizing and harmonizing border procedures, and in securing borders. It is, therefore, quintessential for Customs to take the lead in consolidating and further amplifying the ongoing efforts to ease the flow of goods and people across borders, thus turning globalization into a positive force. To that end, the WCO is committed to promoting the transformation of frontiers into “SMART borders,” with Customs acting as the central connecting and coordinating hub.
3. The concept of SMART borders, which also highlights Customs’ role in supporting the UN 2030 Agenda for Sustainable Development, means ensuring timely delivery of raw materials to industry, reducing unfair competition in local communities, opening up opportunities for marginalized communities to access new markets, creating transparent and predictable conditions for trade, and facilitating legitimate business that will in turn contribute to economic growth and job opportunities. This innovative approach is twofold: reengineering business processes while applying new technologies, and working “smartly” to achieve an interconnected and secure global value chain that fosters economic growth in an inclusive manner.
4. Against this background, the SMART borders concept is aimed at strengthening the whole-of-government endeavour to facilitate trade and travel, and mitigate threats inherent in the cross-border flows of goods, people and means of transport. Here, SMART means

that Customs should ensure that the following guiding principles are at the centre of Customs compliance, enforcement and facilitation efforts: *Secure, Measurable, Automated, Risk Management-based and Technology-driven*.

5. A message from the WCO Secretary General on the theme of the year, delivered at the celebration of the International Customs Day on 25 January 2019, and a background document expounding the guiding principles for SMART borders, namely: Secure, Measurable, Automated, Risk Management-based and Technology-driven can be found at : <http://www.wcoomd.org/en/about-us/international-customs-day/icd-2019.aspx>

II. Strategic imperative of SMART borders

6. The increasing globalization and the ever-growing cross-border movement of goods and people necessitate Customs and other relevant agencies to innovate their business processes through reengineering and greater use of information and communication technologies (ICT). Estimates show that passenger numbers are expected to double, reaching 7.3 billion by 2034¹ and freight will quadruple by 2030², placing a considerable strain on Customs and relevant government agencies and posing new threats to security, as well as new challenges to facilitation.
7. Globalization 4.0³ is offering a new narrative for global economy, driven by cutting-edge technologies and the movement of ideas, people, and goods. Alongside the growing digitalization of global value chains, E-Commerce, Industry 4.0 and 3D printing are further redefining the international trading landscape.
8. Given this situation characterized by dynamic disruptions, Customs and other border agencies are presented with new opportunities to adapt their policies and business processes to visualise and realise SMART borders for a secure, efficient and scalable border management.
9. In the pursuit of SMART borders, Customs administrations are taking several measures to improve their border processes. Some Customs administrations are also leveraging the new wave of social, mobile, analytics and cloud (SMAC) to transform into a digital organization in their pursuit of paper-free Single Window environment. By tapping into the digital ecosystem including various supply chain and passenger flow actors, Customs and other relevant government agencies can tackle challenges that were previously well beyond their remit. Technology-enabled automated and measurable processes and intelligent systems can strengthen safety and security, whilst facilitating the cross-border movement of goods, people and conveyances.
10. It is of critical importance that technologies and processes deployed by the Customs and other border regulatory agencies should be in sync with those used by contemporary trade, travel and transport industry. By doing so, there would be a greater possibility of efficient exchange of data and other information, realizing the vision of 'data pipeline'.
11. Additionally, technologies and processes should also enhance Customs and other government agencies' targeting capabilities by strengthening their risk management system. Due to the phenomenal increase in cross-border flows of goods and passengers, it is becoming increasingly difficult, and perhaps not desirable, to screen every shipment and

¹ <https://www.iata.org/pressroom/pr/pages/2014-10-16-01.aspx>

² <http://www.oecd.org/futures/infrastructureto2030/49094448.pdf>

³ <https://www.weforum.org/agenda/2018/11/globalization-4-what-does-it-mean-how-it-will-benefit-everyone/>

passenger, regardless of how good and efficient technologies are deployed. An integrated risk management approach should be led by intelligence and incorporate risk rules based on the globally emerging trends. Risk rules are ever evolving; multiple data sources using powerful data analysis tools, artificial intelligence, machine learning tools could support Advance Knowledge Discovery (AKD) to identify and mitigate emerging threats.

12. Moreover, the automation of different constructs of cross-border flows of trade, travel and transport could be achieved with the help of the Internet of Things (IoT). With the growing convergence of technologies, real-time analytics, machine learning, commodity sensors and embedded systems, the IoT could help secure and facilitate the international supply chain and passenger movements. For example, passengers' journey could be made seamless with the biometric-based passport and visa system, fingerprints, facial recognition, and iris scanning. Another emerging trend is that the concepts of 'pre-clearance' and 'trusted programmes', which were already prevalent in the cargo environment, are now being extended to passengers.
13. Furthermore, data captured by one economic operator or government agency should be normalized, harmonized and standardized before it is exchanged with another economic operator or government agency for more efficient communication within the international supply chain ecosystem. The collection and exchange of standardized data across various supply chain actors including Customs and other border regulatory agencies would create uniformity and consistency, thus improving data quality and reducing associated costs. To that end, the WCO Data Model had been providing a fundamental basis to Customs, other border regulatory agencies and the private sectors.
14. Efforts are also underway to capture data in a more reliable way potentially from the primary source. With the exponential rise in cross-border E-Commerce and the associated challenges for Customs administrations and other border regulatory agencies, the exchange of advance electronic data on E-Commerce shipments from newly emerged actors as well as traditional actors (e.g., e-platforms/vendors, postal operators and express service providers) is gaining traction. New and emerging technologies such as blockchain could help seamless interactions and exchange of information between and among various entities in the E-Commerce supply chain.

- **Key drivers**

15. Given the strategic imperative of SMART borders, some of the key drivers for continued modernization and associated opportunities for Customs and other government agencies are outlined below :
 - i. Enhanced customized e-services: Customs administration can provide more engaging user experience through customised e-services.
 - ii. Interfaced digital platforms: Using well-defined architectures, governance and services, interfaced digital platforms could be accessible by the entire supply chain ecosystem including regulatory authorities and economic operators to help enhance traceability, visibility, streamlined processes, reuse of data, and data quality, as well as to implement integrated supply chain management (ISCM) in conjunction with the data pipeline concept.
 - iii. Well-informed decisions: With an influx of Big Data and advances in processing power, data science and cognitive technologies, Customs and other border

regulatory agencies could leverage the potential of these technologies to make better-informed decisions.

- iv. Empowering workforce: Advances in natural interfaces, wearable devices, tablets interfaced with cargo and passenger data, non-intrusion inspection (NII) equipment and smart machines are presenting new opportunities for Customs and other border regulatory agencies to empower their staff through technology, thus facilitating legitimate cargo and passengers, while addressing associated risks.
- v. Interoperability: The greater uptake of ICT by Customs and other government agencies also raises the issues of interoperability of IT systems within and across borders. New technological solutions, being platform agnostic, can provide the much-needed connectivity and interoperability, through application programming interface (API), for seamless data exchange in a secure and harmonized manner.
- vi. Mobile applications and smart devices: Mobile apps have an advantage in the way that they are available to users anytime and everywhere. Such apps are suitable for direct interactions with users and delivery of various services including real-time information, e-tracking and e-notification. For example, a mobile app could provide all the information (including baggage rules and other regulatory requirements) needed by passengers, which could help improve compliance and facilitate clearance. In addition, smart devices, such as e-seals or smart containers, have the capability to capture data, process and share the data to relevant parties, thus further enhancing their respective functions and services.
- vii. Non-intrusive inspection: There are new opportunities for non-intrusive inspection with minimal physical interface, such as by utilizing scanners, automated border gate, imagery recognition and sensors, and making NII images and data interoperable across equipment and border agencies.
- viii. E-capacity building: E-learning and capacity building leveraging technological tools will also enable the WCO and Customs administrations to train large numbers of officers at one time and equip them with the latest knowledge and emerging developments. This continual learning approach would stimulate critical thinking and assist with the realization of the SMART borders vision of the WCO.

III. Panel discussion:

16. To take forward the discussion on the topic of SMART borders, the PTC, through a panel discussion, may like to consider the following points (but not limited):
 - What are the key opportunities and associated requirements for the enhancements of systems, processes and institutional capabilities for creating and enhancing SMART borders with all its underlying principles and goals?
 - What are the main challenges in terms of legal basis, policy, people and process that might be creating frictions at borders?
 - How can new and emerging technologies further make Customs and other border regulatory processes 'paper-free' and 'hassle-free' for seamless Trade, Travel and Transport, whilst improving predictability, transparency and

institutional integrity, as well as maintaining a level playing field in the era of globalization 4.0?

- How are Industry 4.0 and IOT dynamically impacting global value chains and how should Customs respond to augment its agility to change, thus exploiting opportunities for moving towards ISCM 2.0 (going beyond the present ISCM concept⁴)?

IV. Action Required

17. Following the panel discussion, the PTC is requested to :

- discuss and elucidate the key features of SMART borders;
- examine critical policy and operational factors for SMART borders, as well as share ongoing work and innovative practices/initiatives in this regard; and
- provide guidance and suggest next steps concerning future work on how the international Customs community, in collaboration with partner international organizations, relevant border regulatory agencies and private sector stakeholders, can advance the WCO agenda of SMART borders.

⁴ <http://www.wcoomd.org/-/media/wco/public/global/pdf/topics/facilitation/instruments-and-tools/tools/safe-package/guidelines-on-iscm.pdf?la=en>