

PERMANENT TECHNICAL
COMMITTEE

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PRESENTATION OF THE WCO DATA STRATEGY

(Item XXX on the Agenda)

SUMMARY**Purpose of document**

This document presents the WCO Data Strategy which is aimed at enhancing the consistency of WCO data initiatives, encompassing the full range of data matters and data use in the Customs domain, responding to Members' requests in terms of capacity building and dissemination of knowledge, and stimulating innovation in partnership with academia and the private sector.

The WCO Secretary General gave an overview of the WCO Data Strategy at the December 2021 Policy Commission and it was subsequently presented by the WCO Deputy Secretary General at the February 2022 Capacity Building Committee.

Action required of the PTC

The PTC is invited to discuss and provide guidance on the WCO Data Strategy set out in this document, before it is presented to the June 2022 Policy Commission.

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Data Strategy - building an international Customs data ecosystem

Introduction: motivation for a World Customs Organization (WCO) Data Strategy

1. Data is essential for Customs administrations to ensure they perform their missions more efficiently, formulate strategies, improve the quality of enforcement and revenue collection, optimize allocation of resources and measure their performance. Customs also leverage data to strengthen their role in policy-making and thereby support the national economy, by sharing evidence-based analysis with other governmental agencies as well as statistics and data with importers and exporters. Finally, disseminating Customs data and statistics throughout society is part of states' response to the general call for open governance.
2. The transition to a data-driven organization requires new skills, processes and infrastructure. It also raises specific policy, legal and ethical issues. Although all WCO Members have a wealth of data, there is a risk of a "data divide" between a small number of Members who are already conducting data reforms and the vast majority of Members who currently lack the internal knowledge and external support to benefit from innovations in the data domain. This divide could have dramatic consequences in the interconnected global trade environment.
3. Since 2016, the WCO Secretariat has been developing a range of data initiatives: research workshops leading to publications, inclusion of a special track at Partnerships in Customs Academic Research and Development (PICARD) Conferences, regional awareness-raising seminars, a mini-conference on geodata with the private sector, e-learning modules on the CLiKC! platform, a manifesto for data mobilization in Customs, and the adoption of the Capacity Building Framework for Data Analytics. Given the increasing availability of data and the focus on its potential, data initiatives are evolving rapidly. In 2021, the WCO Secretariat listed more than 30 data-related initiatives launched by the WCO Directorates, though with little sharing of experience between them.
4. Since September 2021, the WCO Secretariat has been working on a strategy to improve its response to data matters and make it more consistent within the Organization, more practical and better tailored to all WCO Members' needs. Data is part of the Technology and Innovation focus area of the WCO Strategic Plan 2022/2023. An overview of the Data Strategy was presented at the December 2021 Policy Commission and received positive feedback from Members. This Strategy aims to respond to four challenges.
5. The first challenge is ensuring consistency between WCO data initiatives. Like the WCO, many international organizations faced a lack of consistency between their data initiatives in the past and this prompted them to develop a data strategy. The World Bank (WB), which implemented open data at a very early stage back in 2010, established a Data Council in 2014 to ensure a corporate vision towards data. In its 2018 Smart Data Strategy, the Organisation for Economic Co-operation and Development (OECD) builds on existing tools and communities, making them part of a single vision driven by its Statistics and Data Directorate. Similarly, in 2018 the International Monetary Fund (IMF) launched a data and statistics strategy "bringing into alignment initiatives that are currently fragmented and unifying the data management function".
6. The second challenge facing the WCO is ensuring it becomes the hub for Customs statistics. In its capacity as the only international organization with competence in

Customs matters, the WCO should be the reference for Customs statistics within the global trade and tax statistics community. Mobilizing statistics internally is also a requirement for the Secretariat in order to deliver evidence-based recommendations to Members, support policy reflection and measure the impact of WCO initiatives.

7. The third challenge, given that the WCO Secretariat advocates the mobilization of data, is ensuring that the organization responds to demands from Members embracing a data culture. The Strategy should therefore reflect the diversity of Customs data use by Members and adopt a holistic perspective towards data by expanding the scope of data use beyond the traditional field of targeting to encompass post-clearance audit, resource optimization, anti-corruption, fusion of intelligence, impact evaluation, and policymaking support. Training and exchange of knowledge are vital for Members, as there are still no “best practices” on data use and the institutionalization of a data culture in Customs. This development makes capacity building the key component of the Data Strategy, whether in terms of content or the way capacity building is delivered in non-data domains.
8. The fourth challenge is to prepare the WCO and its Members for open governance. Data generated by public services are considered as being “commons”, i.e. a resource that needs to be regulated but is widely available. Some countries have developed open licences for data generated by their public services or else implement the “open by default” standard that requires administrations to justify why they do not make their data publicly available. Data, and particularly Customs data, can constitute a source of economic development for the private sector and help build a relationship of trust between states and citizens. Confidentiality is another strict constraint facing Customs. The Strategy therefore seeks a balance between data confidentiality, the secrecy of some methods and the need to foster the sharing of data and statistics among Members and with the general public, private sector and researchers.
9. To respond to these challenges, the Data Strategy aims to build an international Customs data ecosystem, connecting technologies, infrastructure, experts working with Customs data and academic and technology actors who are outside the Customs community. With this objective in mind, this document develops three building blocks grouping together different initiatives, namely (i) data sharing, (ii) communities of practice and (iii) assistance to Members. The document also addresses the implementation of the Strategy and provides an overview of the Strategy, its timeframe as well as a summary of data structures in other international organizations, a glossary of technical terms and a short bibliography of reference documents.

Building block 1 – data sharing

10. Data sharing at the WCO essentially encompasses three kinds of aggregated data: (i) data with restricted access (e.g. Customs Enforcement Network (CEN), joint operations, Time Release Study (TRS)), (ii) open data (e.g. Annual Survey) and (iii) qualitative data provided through information available on the WCO Members’ website. However, data sharing is currently based on collection methods that are not robust and on dissemination tools that do not ensure the visibility and reusability of data. To remedy these gaps, the Strategy focuses on four areas of effort: (i) statistics, (ii) privacy-preserving technologies, (iii) CEN data and (iv) dissemination of information and statistics through a data portal.

B1-1. Establishing the WCO as the centre of statistics on Customs activities

11. Statistics are a foundational layer of the transition to a data-driven organization and the cornerstone of evidence-based policymaking. Customs administrations already release statistics as a public service mission, to advise their respective governments and to support the development of the private sector.
12. Disseminating statistics at global level is also a time-honoured mission of international organizations. The role of trade and taxation statistics, in particular, was bolstered following the 2008 financial crisis. International organizations build partnerships based on statistics within the framework of the United Nations (UN) Sustainable Development Goals, with the objective of defining methods and standards, including for enhanced alerts on potential crises. The PARIS21 initiative supports the global production of statistics for development, as a platform of the UN, IMF, WB, OECD and the European Commission. At a technical level, EUROSTAT, IMF, the UN and the WB work to improve data exchange through the Statistical Data and Metadata eXchange (SDMX) community. In addition, for these organizations, statistics are the first layer on which their new data missions have been built. The objective of developing global statistics for Customs activities consequently needs to be adopted by the WCO if it is to consolidate its role as an international organization active in the public revenue, law enforcement and global trade domains.
13. The WCO aims to support and stimulate the production of statistics by Members, as well as their standardization and global dissemination. This standardization will make the WCO Annual Survey a key instrument for the Secretariat and Members, and the WCO a major provider of statistics on Customs activities within the network of international actors responsible for trade and taxation statistics. To support this process, the Strategy will develop capacity-building activities to engage all Members in the use of modern data science tools for statistics (see section on building block 3) and proposes the establishment of a WCO working body focused on data and statistics by bringing Members on board (see final section on Implementation).

B1-2. Developing sandbox datasets and research into privacy-preserving technology

14. The main advancement in terms of data is the technical possibility offered by new tools to increase the granularity of analysis by using transaction-level data, such as cargo manifests, Customs declarations and detailed fraud cases. Customs declarations represent a unique source of information for analysing risks, detecting fraud and devising evidence-based policies. In the enforcement domain, Members can leverage the Customs community to improve its use of artificial intelligence by training its algorithms on “global sandbox datasets” that combine Customs declarations and fraud cases from different national sources. Another potential use of global anonymized datasets is benchmarking algorithms. Finally, for Customs training purposes, the availability of anonymized disaggregated data is also critical.
15. Considering that confidentiality is a major issue for Members, the WCO aims to devote technical and policy research into determining how Customs could share samples of transaction-level data - such as X-ray/computed tomography (CT) scanner images, fraud cases or Customs declarations - in a way that satisfies their national legal and ethical requirements.
16. The first anticipated outcome is research and policy papers on reliable methods of privacy-/confidentiality-preserving technologies for data sharing. The second anticipated outcome is the creation of “global anonymized datasets” or sandbox datasets of Customs

declarations or X-ray/CT images. Such datasets would allow Members that use artificial intelligence to benefit from less biased data to train their algorithms, particularly on fraud detection. The third anticipated outcome is that Members will be able to share transaction-level datasets on a voluntary basis with the WCO Secretariat in order to obtain support with data analysis in a technically and legally secure infrastructure.

B1-3. Enriching the CEN data

17. The WCO already operates as a communications hub for Customs enforcement operations, through its CENcomm secure communication tool, and collects data in its CEN database. The WCO CEN is a reference tool for Members to exchange information, develop risk analysis and receive alerts on new fraud trends. Upgrading them to a fusion and analysis platform offering advanced intelligence and criminal analysis software, based on the model used by some regional police organizations, would require financial investment in terms of software, infrastructure and human resources that are not commensurate with the role of most individual Customs administrations, and with the role of Customs, in general, in combating serious and organized crime.
18. The WCO will, however, work on enhancing enforcement data to assist Members make optimum use of their fraud data for risk analysis. The Data Strategy proposes looking at policy on the exchange of information among Members, with a view to enhancing the quantity and quality of data in the CEN and upgrading the features of the CEN platform to ensure that Members derive even greater benefits from using it. The anticipated outcomes in this respect are new metadata for CEN and CENcomm, visualization tools for the CEN, a new feature in the platform and guidance for Members on how to draft seizure reports.

B1-4. Developing a WCO Data Portal

19. The most frequent method of data sharing is through data portals, open to the public and with a section for Members only. Data are made available in machine-readable format. All the WCO's partner international organizations have set up their own data portal, centralizing sharable data through one single point of entry. Most of these data portals provide simple online visualization tools and application programming interfaces (APIs) for data science tools. All the partner international organizations, apart from one (ICAO), offer free-of-charge access to data.
20. The WCO has launched several initiatives offering information portals, such as IRIS, COLIBRI, Reform and Modernization-Monitoring Activities and Projects (RAMMAP) and Single Window Interactive Map (SWIM), which combine Customs data, information from the WCO and information from external sources.
21. In addition, the WCO aims to offer a global reference repository of technical and legal work conducted by the Organization. A practical example is the provision of Harmonized System (HS) classification advice, one of the regular tasks of the Customs community, which should be accessible to Members in a user-friendly and reusable format. Another example is the import-export restrictions database developed in response to the COVID-19 pandemic.
22. Finally, the WCO aims to promote the use of data through data visualization tools, particularly for publicly accessible Customs statistics and, as described in the previous section, for restricted-access data such as the CEN. The promotion of data visualization tools is crucial for Customs officers who are non-data specialists, as these tools will

increase their ability to exploit data in an easy and practical way. By way of example, the COLIBRI Project currently offers such data visualization.

23. The WCO will more effectively bring together tools that can be used by Members in their daily work through the creation of a data portal. The anticipated outcome is a data portal as the single point of entry for Members to access quantitative and qualitative datasets. This data portal could, for instance, offer (i) HS classification advice available in a searchable and reusable format, (ii) FinCRIME Online Library on money laundering, (iii) observatory of commercial fraud, (iv) price dataset collected from the online marketplace using the web scraping technique, to serve as reference data for undervaluation (v) depository of open sources of information of use to Customs, and (vi) a special section on the WCO website with links to submissions and notifications concerning the Customs procedures of other international organizations, such as the World Trade Organization (WTO).

Building block 2 - communities of practitioners

24. As an international organization, the WCO is a hub for knowledge sharing, leveraging its supranational capacity to bring together national specialists and attract experts and academics from other organizations. This role is pivotal in the fledgling domain of data analytics. The sharing of methods may raise some confidentiality challenges, such as in the area of fraud detection; however, the availability of anonymized datasets may overcome this issue. The Strategy also aims to be holistic and develop the use of data in all Customs domains. This would mean that methods for post-clearance audit, statistics production, performance measurement, impact assessment and enforcement could be more easily shared. In addition, Members need to share strategies, legal policies and approaches to ethical matters. The Data Strategy therefore develops three initiatives to that end.

B2-1. Organizing data technique workshops

25. The WCO aims to mobilize the community of Customs officers in charge of data analysis. The WCO Secretariat will organize at least one workshop a year - subject to funding - to exchange views on methodological issues. Academics may be invited to give lectures on specific methods to broaden the knowledge of Customs specialists. These lectures could be delivered in a hybrid format to allow for the largest possible audience. Joint experiments could be agreed upon during the seminars, based on sandbox datasets or real anonymized datasets shared by Members. Workshops will be held on specific issues, including key data extracted from Customs declarations in order to detect fraud, impact evaluation of reforms, anonymization methods, data analytics for post-clearance audit and combating corruption, and should lead to the publication of research papers and guides.

B2-2. Organizing data policy workshops

26. The WCO also aims to mobilize the community of Customs officers in charge of data policy. The WCO Secretariat will organize one workshop a year - subject to funding - to exchange views on data policies (quality, regulation and ethics). In terms of technical workshops, academics may be invited to give lectures on specific topics and these lectures could be delivered in a hybrid format to allow for the largest possible audience. The outcome of the workshops will be the publication of research papers and guidelines on data quality, data ethics and data policy for Customs.

B2-3. Managing a Data Innovation Hub

27. Innovation in the data domain is extremely fast moving and requires the adoption of experimental approaches through the development of proofs of concept, in partnership with Members, academia and the private sector. Both the private sector and academia have taken the lead in technological innovations. They are both also seeking institutional support and a trusting relationship with Customs administrations in order to explore the viability of their innovations and respond to the needs of public administrations.
28. Experimental approaches - proofs of concept - are developed in international organizations and public administrations to (i) leverage reasonable levels of funding rather than launch large-scale projects that are difficult to maintain in the long term, (ii) be more agile in addressing needs and problems, and (iii) avoid being tied up to private providers.
29. To implement this approach, the WCO will manage a Data Innovation Hub, bringing together Customs, the private sector and academia to support the development of proofs of concept. The Hub could take the form of two meetings a year. It should be facilitated by the WCO Secretariat and of its meetings should remain informal. The anticipated outcome is the securing of funding for innovation, the development of proofs of concept whose results will be widely shared within the Customs community, and, above all, the building of data analytics capacities for Authorized Economic Operators (AEOs) to boost implementation of the SAFE Framework of Standards to Secure and Facilitate Global Trade (SAFE FoS).

Building block 3 – assistance with the transition to data

30. The WCO will support Members with their transition to becoming data-driven organizations and with achieving autonomy in collecting, treating and disseminating their data and analysis. This assistance will take six different forms, ranging from the most general to the most specialized.

B3-1. Updating the Capacity Building Framework on Data Analytics

31. Customs leaders need a clear view of the organizational changes required and the related financial impact when planning their transition to a data-driven organization. In this connection, the WCO already issued a Capacity Building Framework on Data Analytics, providing general guidance on the implementation of data analytics in Customs.
32. Based on the lessons shared by the most technically advanced WCO Members, the WCO will update the Framework to showcase different implementation models and enlighten Customs leaders about trends, constraints and costs. The Framework will also be updated with lessons learnt from capacity building delivered in the data domain.

B3-2. Training Customs leaders in evidence-based policy-making

33. The WCO will support the development of a data culture in Customs. Customs leaders need to envisage their action within the general framework of evidence-based policymaking, whether that be managing their administration or advising their government. They need to leverage statistics to conduct reforms and evaluate their

impact, defend their budget, quantify their needs and the potential outcomes of the policy and technical reforms.

34. The WCO will organize short regional seminars, on an annual basis, for Customs leaders. The seminars will be built around real use cases taking account of the national environment. Depending on the available funding, the WCO will invite speakers from international partners, such as the IMF, WB and regional development banks, to demonstrate how these partners have adopted evidence-based policy-making and what this means, in real terms, in the field of trade and tax policies.

B3-3. Developing multi-year assistance projects

35. Capacity building in data matters is a relatively new topic for the WCO. It is therefore crucial to draw lessons from assistance initiatives, by developing pilot projects with Members seeking support and those wishing to share lessons learnt through candid assessments and research papers. These projects should be undertaken on a multi-year basis to assist Members in a progressive manner.
36. Through pilot projects, the WCO will provide assistance on data strategy design and implementation, and targeted assistance on technological matters. The WCO will respond to Members expressing a need for support and those wishing to share lessons learnt from the implementation of their data strategy.

B3-4. Enhancing Customs statistics services

37. As statistics have been identified as pivotal (building block 1), the WCO will assist Members to enhance their statistics services. This is with a view to empowering Customs leaders to adopt evidence-based policies and enabling Members to respond to the WCO Annual Survey in a more robust manner. Providing such assistance is actually considered as part of the data collection process by international organizations. The WB, UNODC and IMF, among others, develop such strategies to encourage countries to commit more fully to statistics and data and to share them globally.
38. The WCO will develop specific technical assistance missions for Customs statistics services to promote the use of modern data science tools and participation in the Annual Survey. The anticipated outcomes are heightened engagement in the Annual Survey, greater robustness of the statistics provided by Members, and the consolidation of evidence-based policymaking in Customs.

B3-5. Training Customs data specialists

39. The WCO will contribute to the empowerment of Customs data specialists in Member administrations that require support. To that end, the WCO will develop specific training for Customs data specialists, based on real use cases. The training method used will blend e-learning and on-site training sessions. The anticipated outcomes are training programmes in cooperation with universities, including the BAnd of CUstoms Data Analysts (BACUDA) scholarship programme in collaboration with a Korean university and the DATAFID programme in collaboration with a French university, as well as the CLiKC! platform e-learning modules.

B3-6. Training WCO experts on data analytics

40. The WCO aims to engage WCO experts (accredited experts and Secretariat staff) in data analytics to improve the quality of their recommendations, joint operations and reporting. Capacity building initiatives will become more evidence-based and Members will be encouraged down this route through a cooperative approach based on quantitative analysis. This in turn will raise the profile of WCO recommendations among international partners.
41. The WCO will train experts who are non-data specialists on Customs transaction-level data, and on methods of exploring and visualizing data. These specific practical training sessions will be based on real Customs datasets, situations and needs.

Implementation of the Data Strategy

42. The Data Strategy will be multiannual and progressive (see Annex 2). It will require a long term effort to assimilate data and statistics into the organizational culture, given the range of areas impacted, such as capacity building, information technology (IT) and legal procedures. The efficiency of this Strategy will be the result of a virtuous cycle. Based on the expertise built up and shared among communities of practitioners, the WCO will be able to provide up-to-date technical assistance to support Members. This assistance to Members will raise new issues that will feed into the work of and discussions within communities of practitioners.
43. The implementation takes account of the implications for the Secretariat in terms of workload and funding on the one hand, and increasing Member engagement in the transition to data on the other. Considering the novelty of the data approach, three main challenges have to be addressed when implementing the Strategy: how to position data in the organization; how to empower the Secretariat, as a whole, to be more engaged in data culture; and how to make this Strategy financially sustainable?

Position of data in the organization

44. In September 2021, the Secretariat set up a Data Board responsible for rolling out Secretariat initiatives related to data which are consistent with the current Strategy. The Board is chaired by the WCO Secretary General and comprises the Deputy Secretary General, Directors, Deputy Directors, the Head of Administration, the Head of the Research and Policy Unit and data specialists nominated by the Directorates. These specialists form a data group tasked with responding to requests by the Data Board.
45. In most international organizations, a high-level body, equivalent to a WCO Directorate or Sub-Directorate, is responsible for managing the organization's data activities (see Annex 3). In international organizations, where capacity building is a core function, the department that deals with data is also responsible for providing specific technical support and training on data and statistics. A particularity of the WCO is the absence of a structure with responsibility for statistics, unlike other organizations where such a structure forms the basis of new bodies tasked with data matters.
46. To implement the Data Strategy in a progressive and sustainable way, the WCO plans to establish a working body with responsibility for statistics (standardization, enhancement of the Annual Survey and guidance on capacity building for Customs statistics services), as statistics appear to be the first layer of evidence-based action, which is crucial for all Members, and a domain where the Organization should increase its presence. This will be the first step towards progressively merging working bodies dealing with data matters,

such as data analytics and performance measurement, into a single body to ensure a consistent approach to data.

Retooling the WCO Secretariat staff

47. Increasing data literacy within the Secretariat and equipping its staff with new techniques and knowledge are preconditions for the success of the Data Strategy. This is a challenge faced by all international organizations. Data techniques are new and consequently require retooling of the staff as well as the recruitment of specialists, in some cases.
48. The first factor for empowering the Secretariat staff is to organize regular training sessions, as developed in the third building block. A different type of training should be also delivered to senior staff to promote a data culture and evidence-based policymaking. The Secretariat has identified staff with data skills in the Capacity Building Directorate, Compliance and Enforcement Sub-Directorate and the Research Unit. These staff members will be called upon to deliver some of the in-house training through a data task force.
49. The second factor for institutionalizing a data culture within the WCO Secretariat is the diversification of data sources and the mobilization of non-Customs data to be used for the Secretariat's policy analysis and reports. In this connection, and subject to funding, the WCO will sign a contract for access to statistics and/or data providers. Non-Customs data, such as maritime traffic data, mobile phone data, satellite imagery and geodata, have proven to be very useful in supporting Members in fragile situations in which national administrative data are lacking. These data will also supplement Customs data for enforcement and policy analysis in general. By way of example, the use of geospatial data is now widespread in international organizations dealing with serious crime, such as the UNODC, or in organizations addressing development issues such as the WB. Another example is maritime traffic data used by the IMF to assess the impact of the COVID-19 pandemic. The integration of new data sources is therefore critical for the development of evidence-based and quantitative approaches by the Secretariat.

Connecting with international actors engaged in data and statistics

50. The Data Strategy aims to connect the Customs community to existing initiatives, led by the UN and other international organizations, so as to avoid duplication of effort and to feed into the international agenda on data and statistics by sharing Customs' perspective and Customs statistics.

Financial impact

51. The timeframe set out in Annex 2 hereto provides information on the Strategy's funding status.
52. It should be noted that implementation of the Data Strategy will not be budget neutral, given that the WCO cannot rely on an existing culture and infrastructure of production, analysis and dissemination of data and statistics. The WCO has already recruited data analysts within donor-supported projects. In the medium term, and depending on Members' requirements and commitment, there will be a need to recruit designated staff to support implementation of the Data Strategy.

Annex 1: Overview of the Data Strategy

Data Sharing

Open Customs Statistics

Standardization of Customs statistics for the WCO Annual Survey and online publication

Sandbox Datasets and Privacy-Technology Research

Anonymized datasets for artificial intelligence, training and cooperation on testing (e.g. X-ray/CT images, Customs declarations)

CEN Data Enrichment

CEN data that is enriched, quantitatively and qualitatively, and accessible through a data visualization interface

Data Portal

Data Portal to access Customs regulations in a searchable and reusable format, including statistics, HS classification advice, FinCrime Online Library, RAMMAP-SWIM and open sources of information

Communities of Practitioners

Data Technique Workshops

Annual workshops for specialists with input from academia

Data Policy Workshop

Annual workshops on data quality and ethical, legal and political matters applied to Customs

Data Innovation Hub

Working on proofs of concept with Members, the private sector and academia

Assistance with the Transition to Data

Capacity Building Framework on Data Analytics

Document updates to reflect successful transitions by Members

Training Customs Leaders on Evidence-Based Policy-Making

Training Customs leaders how to leverage data for management purposes and for advising governments

Data Transition Pilot Projects

Multi-year assistance to Members and lessons learnt for capacity building purposes

Strengthening Customs Statistics

Support for Customs statistics services through data science tools

Training for Customs Data Specialists

Training for specialists in data science applied to Customs, in partnership with academia (BACUDA scholarship, CLiKC! platform, DATAFID)

Training for WCO Experts on Data Analytics

Development of a data-driven approach for the Secretariat during missions and operations in the field

Annex 2: Timeframe and Funding Status (1/3)

- indicates that at least some WCO Members have specifically committed to the initiative
- ** indicates that the initiative is subject to funding

Data Sharing

	June 2022 - June 2023	June 2023 - June 2024	June 2024 - June 2025
Open Customs Statistics	Working Group on Statistics – development of statistics standards	Working Group on Statistics – development of statistics standards (continued) and inclusion in the Annual Survey for online publication, in a machine-readable format	Working Group on Statistics – development of statistics standards (continued) and inclusion in the Annual Survey for online publication, in a machine-readable format
Sandbox and Anonymized Datasets	Research paper on anonymization/pseudonymization methods Discuss the practical aspects of sharing X-ray/CT images at the 9 th Meeting of the WCO Technical Experts Group on Non-Intrusive Inspection (TEG-NII Meeting)	Sharing of anonymized datasets from Customs declarations (*)	Sharing of anonymized datasets from Customs declarations as well as X-ray images (*)
CEN Data Enrichment	Promote the enhancement of data quality and quantity in the CEN Implementation of data visualization tools (**)	Implementation of data visualization tools (**)	
Data Portal	Inclusion of the Data Portal Terms of Reference on the new WCO website	Statistics and information available on the Data Portal	Statistics and information available on the Data Portal (continued)

Annex 2: Timeframe and Funding Status (2/3)

- indicates that at least some WCO Members have specifically committed to the initiative
- ** indicates that the initiative is subject to funding

Communities of Practitioners

	June 2022 - June 2023	June 2023 - June 2024	June 2024 - June 2025
Data Technique Workshop	Workshop on methods (anonymization - tbc) (**)	Workshop on methods (theme tbc) (**)	Workshop on methods (theme tbc) (**)
Data Policy Workshop	Workshop on policies (data quality - tbc) (**)	Workshop on policies (theme tbc) (**)	Workshop on policies (theme tbc) (**)
Data Innovation Hub	Launch of the Data Innovation Hub at the 2022 WCO Technology Conference (Tech-Con)	Second session of the Data Innovation Hub and presentation of proofs of concept	Third session of the Data Innovation Hub and presentation of proofs of concept

Annex 2: Timeframe and Funding Status (3/3)

- indicates that at least some WCO Members have specifically committed to the initiative
- ** indicates that the initiative is subject to funding

	June 2022 - June 2023	June 2023 - June 2024	June 2024 - June 2025
Capacity Building Framework on Data Analytics	Update of the Framework with case studies (* + **)	Update of the Framework with case studies (* + **)	Update of the Framework with case studies (* + **)
Training Customs Leaders in Evidence-Based Policy-Making	One training session organized each year (**)	One training session organized each year (**)	One training session organized each year (**)
Data Transition Pilot Projects	Pilot project in different countries (**)	Pilot project in different countries (**)	Pilot project in different countries (**)
Strengthening Customs Statistics	One regional seminar per year (**)	One regional seminar per year (**)	One regional seminar per year (**)
Training for Customs Data Specialists	Availability of 10 DATAFID modules (French), in cooperation with Auvergne University BACUDA Scholarship (in English), in cooperation with Sungkyunkwan University	Development of new training modules based on cross-fertilization between existing modules and experiences with universities	Updates of training modules based on field experiences in capacity building
Training for WCO Experts on Data Analytics	One training session held at the WCO Secretariat	One training session held at the WCO Secretariat	One training session held at the WCO Secretariat

Assistance with Transition to Data

Annex 3: Summary of Data Transition in Other International Organizations

Organization	Data portal	Structure responsible for data		A few milestones
		Name (WCO equivalent)	Staff	
United Nations Office on Drugs and Crime	dataunodc.un.org	Policy Analysis and Public Affairs Division (Directorate) / Research and Trend Analysis Branch	47	<p>2015: adoption of the new crime and drugs statistics framework The UNODC revised the definition of its crime and drugs statistics, through a policy process with Members to renew and consolidate national statistics on crime, drugs and justice and how they are shared at global level. This data and statistics collection process is based on an annual survey and capacity building provided to Members.</p> <p>2020: the 2021-2025 strategy focuses on disaggregated data and geospatial data in partnership with UN specialized agencies such as UNITAR.</p>
World Bank	data.worldbank.org	Development Economics Vice Presidency (Directorate) / Development Data Group	103	<p>2010: launch of the data hub 2014: creation of the Data Council 2021: World Development Report “Data for Better Lives” 2021: launch of the Global Data Facility (special fund for data initiatives)</p>

World Trade Organization	stats.wto.org (for statistics) data.wto.org (agreements, tariffs, etc.)	Economic Research and Statistics Division (Directorate)	24	
International Trade Centre	www.intracen.org/itc/m arket-info-tools/trade- statistics/	Division of Market Development (Directorate) / Trade and Market Intelligence	39	2020: launch by the ITC of a platform for African countries, proposing online dashboards based on Customs transaction- level data provided by African Customs administrations
Organisation for Economic Co- operation and Development	data.oecd.org	Statistics and Data Directorate (Directorate)	100	2011: platform for statisticians 2016: launch of the “Smart Data Strategies” to support countries 2017: launch of the Data for Development Initiative 2017: the Statistics Directorate becomes the Data and Statistics Directorate
International Monetary Fund	imf.org/en/Data	Statistics Department (Directorate)	191	2018: launch of the Data for Decisions (D4D) Fund 2018: adoption of the “Strategy on Data and Statistics at the Fund in the Digital Age” and integration of data into the Statistics Department
International Organization for Migration	migrationdataportal.org	Global Migration Data Analysis Centre (Directorate)	23	2017: launch of the migration data portal In addition to data collection and analysis, the IOM Global Migration Data Analysis Centre conducts programmes, including research, develops migration governance indicators, and provides capacity building to States to more effectively collect and analyse data

International Civil Aviation Organization	data.icao.int/iCADS	Air Transport Bureau (Directorate) / Economic Development / Aviation Data Analysis Section	N.A.	Access to the data portal is not free of charge
Universal Postal Union	https://www.upu.int/en/Universal-Postal-Union/Activities/Research-Publications/Postal-Statistics#query-the-database	Executive Office (OSG) / Research and Strategy Programme	2	
International Maritime Organization	gisis.imo.org	N.A.	N.A.	

Annex 4: Reference Documents from International Organizations

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<https://www.imf.org/en/Capacity-Development/D4D/d4d-fund>

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<https://www.imf.org/en/Publications/Policy-Papers/Issues/2018/03/20/pp020918imf-executive-board-supports-new-strategy-for-data-and-statistics-in-the-digital-age>

OECD (2001). A New Strategy for OECD Statistics

<https://www.oecd.org/industry/business-stats/2474970.pdf>

OECD (2018). Smart Data Strategy - Vision Statement

<https://www.oecd.org/sdd/OECD-Smart-Data-Strategy-Vision-Statement.pdf>

UNODC (2020). UNODC Strategy 2021–2025

https://www.unodc.org/documents/commissions/CND/CND_Sessions/CND_63Reconvened/ECN72020_CRP22_ECN152020_CRP3_V2007057.pdf

UNODC (2015). International Classification of Crime for Statistical Purposes (ICCS)

https://www.unodc.org/documents/data-and-analysis/statistics/crime/ICCS/ICCS_English_2016_web.pdf

World Bank (2018). Data for Development. An Evaluation of World Bank Support for Data and Statistical Capacity.

<https://ieg.worldbankgroup.org/sites/default/files/Data/Evaluation/files/datafordevelopment.pdf>

World Bank (2021). World Development Report – Data for Better Lives

<https://wdr2021.worldbank.org/>

Annex 5: Brief Glossary

There are many ways to describe data, such as be quantitative/qualitative, categorical, binary, structured, unstructured, semi-structured, etc. These distinctions are mainly used by coders, scientists and statisticians. In the Customs field, it is important to make the following distinctions for non-specialists.

Disaggregated data are transaction-level data, transactional data and firm-level data (depending on the field of studies). This is the highest level of granularity, where data are the most detailed. For instance, in a database of Customs declarations or Customs fraud, each declaration/case is a line in the database comprising all the information fields. In Customs, disaggregated data contain personal data (companies, individuals). In many cases, timestamps are added to identify the version of the declaration or the last action on the declaration.

Aggregated data are mainly statistics or indicators. They entail a computation or combination of transactional data. Examples are foreign trade statistics, number of drugs seizures, median clearance time, and amount of revenue collected annually.

Time Series are sequences of the values of variables, indicators or statistics through time, according to a defined period of time (year, quarter, month, etc.). The provision of time series is essential to assess the impact of reforms, for instance.

Geodata are data that include a geolocation by longitude and latitude.

Data collection and **data sourcing** refer to the process of collecting data in a more or less automated way (coders refer to data pipelines). Sources of data are a challenge for international organizations that generate little data compared to national public administrations.

Exhaustive data versus **representative data** at global level. Statistics on Customs activities are typically exhaustive data: for instance, it is possible to collect one metric per country on the number of drug seizures without facing any confidentiality issues. This metric is intended to report the total number of seizures and provides exhaustive information. However, at global level it is not possible to collect all the detailed data on all drug seizures. Disaggregated data collected at global level should therefore be representative, i.e. of interest at the international level, due to the originality of the case, its scope or international connections. The same rationale may apply to clearance times. It is possible to share, at global level, statistics on clearance times per country based on the computations made by Customs administrations across all their declarations; however, it is not possible to share all the Customs declarations at global level.
