Legal and technical readiness for paperless cross-border trade

The case of Mexico

Luis Alejandro García Seimandi
Víctor Manuel Almiray Jaramillo
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Luis Alejandro García Seimandi
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This document was prepared by Luis Alejandro García Seimandi and Victor Manuel Almiray Jaramillo, consultants at the International Trade Unit of the International Trade and Integration Division of the Economic Commission for Latin America and the Caribbean (ECLAC), as part of the activities of the CORPYME project within the framework of the cooperation programme between ECLAC and the Republic of Korea and activities conducted in collaboration with the Division of Trade, Investment and Innovation of the Economic and Social Commission for Asia and the Pacific (ESCAP).

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Contents

Summary .................................................................................................................................................. 11
Introduction .............................................................................................................................................. 13
I. Paperless trade facilitation in Mexico ................................................................................................. 15
II. Assessing legal readiness for cross-border paperless trade in Mexico .............................................. 19
   A. Electronic transactions and signatures law ....................................................................................... 20
      1. Electronic transactions law: general principles ........................................................................... 20
      2. Electronic signatures and trust services ....................................................................................... 21
      3. Privacy and data protection ........................................................................................................ 22
      4. Data sharing .................................................................................................................................. 24
      5. Data retention and electronic evidence ......................................................................................... 24
   B. Laws relating to paperless trade systems ......................................................................................... 26
      1. Establishment of a paperless trade system .................................................................................... 26
      2. Quality of the information exchanged through the paperless trade system ............................... 26
      3. Service Level Agreements and Memorandum of Understanding ............................................... 26
   C. Cross-border aspects ....................................................................................................................... 27
      1. Relevant international agreements for the facilitation of cross-border paperless trade ................. 27
      2. International standards, guidelines and recommendations .......................................................... 27
   D. Other considerations ....................................................................................................................... 27
      1. Ownership of information in the paperless trading system ............................................................ 27
      2. Liability issues related to the cross-border paperless trade system ............................................. 28
      3. Dispute settlement and conflict of laws ....................................................................................... 29
      4. Electronic payments and electronic transferable records ............................................................ 29
      5. Competition law .......................................................................................................................... 30
III. Evaluation of technical readiness for cross-border paperless trade in Mexico .......................... 31
A. Paperless trade system at the national level ................................................................. 33
   1. Institutional and governance bodies for electronic data exchange
      in paperless environment ......................................................................................... 33
   2. Level of automation ................................................................................................. 34
   3. Information and communication technology (ICT) infrastructure
      (connectivity, sustainability and recovery) .............................................................. 36
   4. Security ................................................................................................................... 37
   5. Business process re-engineering ............................................................................ 37
   6. Data harmonization and standardization ................................................................. 37
   7. Capacity-building .................................................................................................... 38
   8. Other matters ......................................................................................................... 38
B. Current national status towards cross-border data exchange ........................................ 38
   1. Electronic systems ................................................................................................... 38
   2. Single window system ............................................................................................. 39
   3. Business process re-engineering ............................................................................ 39
   4. Data harmonization and standardization ................................................................. 40
   5. International transit .................................................................................................. 40
   6. Awareness programme ............................................................................................ 40
   7. Other matters ......................................................................................................... 41
IV. General conclusions ........................................................................................................ 43
V. Recommendations ........................................................................................................... 45
A. Recommendations derived from the legal readiness assessment ................................. 45
   1. Electronic transactions and signatures law ............................................................... 45
   2. Laws regarding paperless trade systems .................................................................. 46
   3. Cross-border aspects ............................................................................................... 46
   4. Other considerations ............................................................................................... 46
B. Recommendations derived from the technical readiness assessment ............................ 46
   1. National level paperless trade system ..................................................................... 46
   2. Current national status towards cross-border data exchange .................................. 50

Annexes
Annex 1 .............................................................................................................................. 54
Annex 2 .............................................................................................................................. 56
Annex 3 .............................................................................................................................. 73
Annex 4 .............................................................................................................................. 96
Annex 5 .............................................................................................................................. 98

Tables
Table 1 Measures included in the paperless trade module of the Global Survey
on Digital and Sustainable Trade Facilitation, 2021 ...................................................... 17
Table 2 Mexico and Latin America & the Caribbean (14 countries): rates of
measures’ implementation on cross-border paperless trade from
the Global Survey on Digital and Sustainable Trade Facilitation, 2021 .......... 17
Figures

Figure 1  Selected Latin American countries: scores on the OECD Trade Facilitation Indicators, 2019........................... 16

Figure 2  Mexico and Latin America & the Caribbean (14 countries):
average rates of implementation of the measures included
in the Global Survey on Digital and Sustainable Trade Facilitation, 2021 .............. 17

Box

Box 1  Brief background and evolution of electronic customs systems in Mexico ............... 32
### Acronyms

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAAPUMAC</td>
<td>Spanish acronym for: Asociación de Agentes Aduanales del Puerto de Manzanillo Colima, A.C. (In English: Customs Brokers Association of Manzanillo Port, Colima)</td>
</tr>
<tr>
<td>AEO</td>
<td>Authorized Economic Operator</td>
</tr>
<tr>
<td>AICP</td>
<td>Spanish acronym for: Acuerdo de Integración Comercial entre los Estados Unidos Mexicanos y la República del Perú. (In English: Trade Integration Agreement between the United Mexican States and the Republic of Peru)</td>
</tr>
<tr>
<td>AI.MX</td>
<td>Spanish acronym for: Asociación Mexicana de Internet, A.C. (In English: Mexican Internet Association, A.C.)</td>
</tr>
<tr>
<td>AMANAC</td>
<td>Spanish acronym for: Asociación Mexicana de Agentes Navieros, A.C. (In English: Mexican Shipping Brokers Association)</td>
</tr>
<tr>
<td>AMECAFE</td>
<td>Spanish acronym for: Asociación Mexicana de la Cadena Productiva del Café, A.C. (In English: Mexican Association of the Coffee Production Chain)</td>
</tr>
<tr>
<td>AMIS</td>
<td>Spanish acronym for: Asociación Mexicana de Instituciones de Seguros, A.C. (In English: Mexican Association of Insurance Institutions)</td>
</tr>
<tr>
<td>ANAFAC</td>
<td>Spanish acronym for: Asociación Nacional de Almacenes Fiscalizados, A.C. (In English: National Association of Bonded Warehouses)</td>
</tr>
<tr>
<td>ANAM</td>
<td>Spanish acronym for: Agencia Nacional de Aduanas de México. (In English: National Customs Agency of Mexico)</td>
</tr>
<tr>
<td>ANMEC</td>
<td>Spanish acronym for: Asociación Nacional Mexicana de Empresas Courier, A.C. (In English: Mexico’s National Association of Courier Companies)</td>
</tr>
<tr>
<td>APEC</td>
<td>Asia-Pacific Economic Cooperation</td>
</tr>
<tr>
<td>ARCO</td>
<td>Access, Rectification, Cancellation and Opposition</td>
</tr>
<tr>
<td>Banxico</td>
<td>Bank of Mexico</td>
</tr>
<tr>
<td>CAAAREM</td>
<td>Spanish acronym for: Confederación de Asociaciones de Agentes Aduanales de la República Mexicana, A.C. (In English: Confederation of Associations of Customs Brokers of the Mexican Republic)</td>
</tr>
<tr>
<td>CADEPA</td>
<td>Spanish acronym for: Captura Desconcentrada del Pedimento Aduanal. (In English: Decentralized Capture of the Customs Declaration)</td>
</tr>
<tr>
<td>CANAERO</td>
<td>Spanish acronym for: Cámara Nacional de Aerotransportes. (In English: National Chamber of Air Transport)</td>
</tr>
<tr>
<td>CC</td>
<td>Spanish acronym for Código de Comercio. (In English: Commerce Code)</td>
</tr>
<tr>
<td>CCE</td>
<td>Spanish acronym for: Consejo Coordinador Empresarial. (In English: Business Coordinating Council)</td>
</tr>
<tr>
<td>CCF</td>
<td>Spanish acronym for: Código Civil Federal. (In English: Federal Civil Code)</td>
</tr>
<tr>
<td>CFDI</td>
<td>Spanish acronym for: Comprobante Fiscal Digital por Internet. (In English: Online Digital Tax Receipt)</td>
</tr>
<tr>
<td>CFF</td>
<td>Spanish acronym for: Código Fiscal de la Federación. (In English: Federal Tax Code)</td>
</tr>
</tbody>
</table>
Legal and technical readiness for paperless cross-border trade: the case of Mexico

CITES
Convention on International Trade in Endangered Species of Wild Fauna and Flora

CLAA
Spanish acronym for: Confederación Latinoamericana de Agentes Aduanales, AC. (In English: Latin American Confederation of Customs Brokers, AC)

COD

COFECE
Spanish acronym for: Comisión Federal de Competencia Económica. (In English: Federal Economic Competition Commission)

COFEPRIS

COMCE

CONAMER
Spanish acronym for Comisión Nacional de Mejora Regulatoria. (In English: National Commission for Regulatory Improvement)

CONCANACO-SERVYTUR
Spanish acronym for: Confederación de Cámaras Nacionales de Comercio, Servicios y Turismo de los Estados Unidos Mexicanos. (In English: Confederation of National Chambers of Commerce, Services and Tourism of the United Mexican States)

CONCAMIN
Spanish acronym for Confederación de Cámaras Industriales de los Estados Unidos Mexicanos. (In English: Confederation of Industrial Chambers of the United Mexican States)

COVE
Spanish acronym for Acuse de valor. (In English: Acknowledgement of value)

COVID-19
Coronavirus Disease 2019

CPEUM
Spanish acronym for Constitución Política de los Estados Unidos Mexicanos. (In English: Political Constitution of the United Mexican States)

CPF

CPTPP
Comprehensive and Progressive Agreement for Trans-Pacific Partnership

CRT
Spanish acronym for Consejo Regulador del Tequila. (In English: Tequila Regulatory Council, AC)

DOF
Spanish acronym for Diario Oficial de la Federación. (In English: Official Journal of the Federation)

ECLAC
United Nations Economic Commission for Latin America and the Caribbean

ESCAP
United Nations Economic and Social Commission for Asia and the Pacific

e.signature
Advanced electronic signature covered by a current certificate referred to in article 17-D of the Federal Tax Code to carry out procedures regarding tax authorities

HTTP
Hypertext Transfer Protocol

HTTPS
Hypertext Transfer Protocol Secure

ICT
Information and Communication Technologies

IDB
Inter-American Development Bank

IFT
Spanish acronym for Instituto Federal de Telecomunicaciones. (In English: Federal Telecommunications Institute)

IMSS
Spanish acronym for Instituto Mexicano del Seguro Social. (In English: Mexican Institute of Social Security)
INAH  Spanish acronym for Instituto Nacional de Antropología e Historia. (In English: National Institute of Anthropology and History)

INAI  Spanish acronym for Instituto Nacional de Transparencia, Acceso a la Información y Protección de Datos Personales. (In English: National Institute of Transparency, Access to Information and Protection of Personal Data)

INBAL  Spanish acronym for Instituto Nacional de Bellas Artes y Literatura. (In English: National Institute of Fine Arts and Literature)

IP  Internet Protocol

JSON  JavaScript Object Notation

LA  Spanish acronym for Ley Aduanera. (In English: Customs Law)

LAASSP  Spanish acronym for Ley de Adquisiciones, Arrendamientos y Servicios del Sector Público. (In English: Acquisitions, Leases and Services of the Public Sector Law)


LFEA  Spanish acronym for Ley de Firma Electrónica Avanzada. (In English: Advanced Electronic Signatures Law)


LFPC  Spanish acronym for Ley Federal para la Protección del Consumidor. (In English: Federal Law for Protection of the Consumer)


LFPDPPP  Spanish acronym for Ley Federal de Protección de Datos Personales en Posesión de los Particulares. (In English: Federal Law on Protection of Personal Data Held by Private Entities)

LFPPI  Spanish acronym for Ley Federal de Protección a la Propiedad Industrial. (In English: Federal Law for the Protection of Industrial Property)


LGPDPPSO  Spanish acronym for Ley General de Protección de Datos Personales en Posesión de Sujetos Obligados. (In English: General Law on Protection of Personal Data in Possession of Obliged Subjects)

LGRA  Spanish acronym for Ley General de Responsabilidades Administrativas. (In English: General Law of Administrative Responsibilities)

LGTOC  Spanish acronym for Ley General de Títulos y Operaciones de Crédito. (In English: General Law of Securities and Credit Operations)

LNMC  Spanish acronym for Ley de Navegación y Comercio Marítimos. (In English: Maritime Navigation and Commerce Law)

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
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<tbody>
<tr>
<td>MATCE</td>
<td>Spanish acronym for Modelo de Administración Tributaria de Comercio Exterior. (In English: Foreign Trade Tax Administration Model)</td>
</tr>
<tr>
<td>MERCOSUR</td>
<td>Southern Common Market</td>
</tr>
<tr>
<td>Mexico-Panama FTA</td>
<td>Free Trade Agreement between Mexico and Panama</td>
</tr>
<tr>
<td>Mexico-Uruguay FTA</td>
<td>Free Trade Agreement between Mexico and Uruguay</td>
</tr>
<tr>
<td>MRA</td>
<td>Mutual Recognition Agreement</td>
</tr>
<tr>
<td>NTFC</td>
<td>National Trade Facilitation Committee</td>
</tr>
<tr>
<td>NOM-151-SCFI-2016</td>
<td>Mexican Official Standard NOM-151-SCFI-2016, Requirements that must be observed for the preservation of data messages and digitization of documents (Cancels NOM-151-SCFI-2002)</td>
</tr>
<tr>
<td>OAS</td>
<td>Organization of American States</td>
</tr>
<tr>
<td>OECD</td>
<td>Organization for Economic Co-operation and Development</td>
</tr>
<tr>
<td>PA</td>
<td>Pacific Alliance</td>
</tr>
<tr>
<td>PDF</td>
<td>Portable Document Format</td>
</tr>
<tr>
<td>PECE</td>
<td>Spanish acronym for Pago Electrónico de Comercio Exterior. (In English: Electronic Payment of Foreign Trade)</td>
</tr>
<tr>
<td>PIS</td>
<td>Spanish acronym for Puerto Inteligente Seguro. (In English: Secure Smart Port)</td>
</tr>
<tr>
<td>PITA</td>
<td>Spanish acronym for Proyecto de Integración Tecnológica Aduanera. (In English: Customs Technological Integration Project)</td>
</tr>
<tr>
<td>PROFEPA</td>
<td>Spanish acronym for Procuraduría Federal de Protección al Ambiente. (In English: Federal Attorney for Environmental Protection)</td>
</tr>
<tr>
<td>REDVUCE</td>
<td>Inter-American Network of Foreign Trade Single Windows</td>
</tr>
<tr>
<td>RENAPO</td>
<td>Spanish acronym for Registro Nacional de Población. (In English: National Population Registry)</td>
</tr>
<tr>
<td>RFC</td>
<td>Spanish acronym for Registro Federal de Contribuyentes. (In English: Federal Taxpayer Registration)</td>
</tr>
<tr>
<td>RGCE</td>
<td>Spanish acronym for Reglas Generales de Comercio Exterior. (In English: General Rules of Foreign Trade)</td>
</tr>
<tr>
<td>SAAI</td>
<td>Spanish acronym for Sistema Automatizado Aduanero Integral. (In English: Comprehensive Automated Customs System)</td>
</tr>
<tr>
<td>SADER</td>
<td>Spanish acronym for Secretaría de Agricultura y Desarrollo Rural. (In English: Secretary of Agriculture and Rural Development)</td>
</tr>
<tr>
<td>SAFE</td>
<td>Framework of Standards to Secure and Facilitate Global Trade</td>
</tr>
<tr>
<td>SAT</td>
<td>Spanish acronym for Servicio de Administración Tributaria. (In English: Tax Administration Service)</td>
</tr>
<tr>
<td>SE</td>
<td>Spanish acronym for Secretaría de Economía. (In English: Secretary of Economy)</td>
</tr>
<tr>
<td>SEA</td>
<td>Spanish acronym for Sistema Electrónico Aduanero. (In English: Electronic Customs System)</td>
</tr>
<tr>
<td>SEDENA</td>
<td>Spanish acronym for Secretaría de la Defensa Nacional. (In English: Secretary of National Defense)</td>
</tr>
</tbody>
</table>
**SEMAR**  |  Spanish acronym for Secretaría de Marina. (In English: Secretary of Marine)
---|---
**SEMARNAT**  |  Spanish acronym for Secretaría de Medio Ambiente y Recursos Naturales. (In English: Secretary of Environment and Natural Resources)
**SENER**  |  Spanish acronym for Secretaría de Energía. (In English: Secretary of Energy)
**SEP**  |  Spanish acronym for Secretaría de Educación Pública. (In English: Secretary of Public Education)
**SFP**  |  Spanish acronym for Secretaría de la Función Pública. (In English: Secretary of the Civil Service)
**SHCP**  |  Spanish acronym for Secretaría de Hacienda y Crédito Público. (In English: Secretary of Finance and Public Credit)
**SICT**  |  Spanish acronym for Secretaría de Infraestructura, Comunicaciones y Transportes. (In English: Secretary of Infrastructure, Communications and Transportation)
**SMTP**  |  Simple Mail Transfer Protocol
**SNICE**  |  Spanish acronym for Servicio Nacional de Información de Comercio Exterior. (In English: National Foreign Trade Information Service)
**SOIA**  |  Spanish acronym for Sistema de Operación Integral Aduanera. (In English: Integral Customs Operation System)
**SOAP**  |  Simple Object Access Protocol
**SRE**  |  Spanish acronym for Secretaría de Relaciones Exteriores. (In English: Secretary of Foreign Relations)
**SSA**  |  Spanish acronym for Secretaría de Salud (In English: Secretary of Health)
**SSL**  |  Secure Sockets Layer
**TCP**  |  Transmission Control Protocol
**TFA**  |  Trade Facilitation Agreement
**USMCA**  |  United States, Mexico and Canada Agreement
**UN/CEFACT**  |  The United Nations Center for Trade Facilitation and Electronic Business
**UNCITRAL**  |  United Nations Commission on International Trade Law
**A/EDIFACT**  |  The United Nations rules for Electronic Data Interchange for Administration, Commerce and Transport
**VOCE**  |  Spanish acronym for Validador de Operaciones de Comercio Exterior. (In English: Validator of Foreign Trade Operations)
**VUCE**  |  Spanish acronym for Ventanilla Única de Comercio Exterior. (In English: Foreign Trade Single Window)
**VUCEM**  |  Spanish acronym for Ventanilla Única de Comercio Exterior Mexicana. (In English: Single Window for Mexican Foreign Trade)
**WCO**  |  World Customs Organization
**WTO**  |  World Trade Organization
**XML**  |  Extensible Markup Language
Summary

The report provides a technical and legal assessment of Mexico’s current status regarding cross-border paperless trade. This assessment was conducted following the methodology and the legal and technical readiness checklists drafted by UN-ESCAP. According to several indicators on trade facilitation, Mexico is a leader in Latin American and the Caribbean in terms of trade facilitation, and particularly, in paperless trade. Regarding Mexico’s legal readiness, the country has a solid legal framework that fully recognizes electronic transactions, as well as the principles of technological neutrality, autonomy of will, international compatibility and functional equivalence of data messages and electronic signatures. In terms of privacy and protection of personal data, Mexico meets the most relevant international standards. The national legal framework finds additional support in international treaties on electronic commerce and various trade agreements, such as the CP-TPP, the USMCA and the PA.

Regarding the assessment to which Mexico's technical environment supports cross-border paperless trade, it is noted that the country has several electronic systems favoring a paperless environment at the national level, such as the SEA and the VUCEM. These systems have evolved over the last 30 years. The aforementioned systems cover practically all aspects related to the activity that customs users must perform in front the different border control agencies to carry out the cross-border trade of goods (import, export and customs transit). Mexico's tendency towards continuous improvement of electronic systems and process automation related to international trade, has placed the country as a benchmark in the region. A series of recommendations are presented as part of this assessment, with the purpose of emphasizing opportunity areas and keep the aim for continuous improvement.
Introduction

Cross-border paperless trade is becoming increasingly important in the world, understanding cross-border paperless trade as the trade of goods, including their import, export, transit and related services, that is carried out on the basis of electronic communications, including the exchange of data and documents, related to commerce in electronic format. Cross-border paperless trade has a great potential not only to boost competitiveness, but also to address the challenges related to the increasing cross-border e-commerce and the boom of digital economy.

The Economic and Social Council of the United Nations has committed to drive the implementation of paperless trade. Furthermore, in 2016 the members of ESCAP signed the Framework Agreement on Facilitation of Cross-Border Paperless Trade in the Asia and the Pacific region. In order to support its implementation, ESCAP, through the Interim Intergovernmental Steering Group on Facilitation of Cross-Border Paperless Trade, prepared checklists to assess the legal and technical readiness of its member countries. ESCAP has already published studies of this kind for 14 countries, and 4 more studies are in process.

The legal checklist is designed to assess the extent to which the country's laws allow cross-border paperless trade. It also identifies potential legal gaps, highlighting what may be necessary to ensure that laws support cross-border paperless trade. The technical checklist allows to assess the degree to which the country's environment is ready to support cross-border paperless trade meaning, the implementation of electronic systems and a paperless environment at a national level, as well as the capacity of national systems to carry out cross-border data exchange with other trade partners. The technical checklist also allows identifying possible technical gaps and actions to improve the technical environment.

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1 For more information on this agreement, see [online] https://www.unescap.org/kp/cpta.
2 To review these studies, see [online] https://www.unescap.org/our-work/trade-investment-innovation/trade-facilitation-digital-trade/paperless-trade.
Based on the example of ESCAP, ECLAC seeks to develop similar national reviews in Latin America and the Caribbean. Mexico was chosen to carry out the first study under the aforementioned methodology, aiming to assess developing similar studies in other countries of the region. This report may serve as a reference to support the actions that the Mexican Government has been taking to drive cross-border paperless trade.

In January of 2022, ECLAC began the legal and technical assessments of cross-border paperless trade in Mexico. The assessment was conducted with the support of consultants located in Mexico, following the checklists prepared by ESCAP (originally in English). The consultants began their activities in January of 2022 translating the checklists and their respective guides, from English to Spanish, using terms that are common in the Hispanic American region. They also began the research on Mexico’s technical readiness and legal framework. This research was complemented with interviews made to various public organizations, public agencies and private sector’s stakeholders. In February of 2022, the ECLAC received support from the SE for the consultants to contact the relevant public organizations and agencies.

The SE and the ECLAC co-organized a consultation that included several public agencies, in which the preliminary results of the interviews and the draft of the report were reviewed, consolidated and validated in detail.

In this report, we present the final findings and recommendations to promote modifications to the legal framework and drive the implementation of actions encouraging paperless cross-border trade in Mexico. This report includes the contributions and suggestions received during and after the consultation.

This report includes a brief summary of the status of trade facilitation and implementation of paperless trade in Mexico, based on Mexico's notifications under the WTO TFA, the Trade Facilitation Indicators developed by the OECD and the Global Survey on Facilitation of Digital and Sustainable Trade 2021. Afterwards, the results of the assessment on legal and technical readiness for cross-border paperless trade and the results of fieldwork are presented successively. Next, the general conclusions of the result of the assessment of legal and technical readiness in which Mexico stands for the full implementation of cross-border paperless trade. Finally, legal and technical recommendations, based on the study’s findings are presented, with some suggested measures that are deemed convenient for achieving the full implementation of cross-border paperless trade. A list of annexes that may be consulted to obtain more details of the information collected of stakeholders, and a list of relevant national and international law in relation to cross-border paperless trade in the country, may be found at the end of the document.

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3 The list of stakeholders interviewed is in annex 1.
4 The consolidated answers to the legal and technical checklists questions are in annex 2 and 3.
I. Paperless trade facilitation in Mexico

In Latin America and the Caribbean, Mexico has a leading position in terms of trade facilitation, and particularly, in paperless trade. Instruments such as the Trade Facilitation Indicators developed by the OECD and the Global Survey on Digital and Sustainable Trade Facilitation developed by the five United Nations Regional Commissions, indicate so. Both instruments seek to capture the degree of implementation of the commitments contained in the WTO TFA, as well as other “TFA-plus” measures in each country, in particular those related to the automation and digitalization of foreign trade procedures. It should be noted that Mexico is one of the few countries in Latin America and the Caribbean committed to implement all the TFA obligations since the date it entered into force (February of 2017).

In 2019, Mexico ranked third in the regional aggregated level of the Trade Facilitation Indicators, preceded only by Costa Rica and Chile, but led the ranking in the Automation indicator (see figure 1). This includes information on 13 aspects, such as the proportion of export and import declarations that are transmitted electronically, the electronic processing of documents prior to the arrival of goods, the usage of the VUCE and automatic payment of duties, taxes and other burdens, among others. The information used to determine the scores of each country comes from three sources: i) publicly available information on the websites of Customs and other relevant cross-border agencies, official publications, annual reports or public databases; ii) information sent by the countries themselves to the OECD; and iii) factual information from the private sector, in particular, from express shipping industry associations and world-wide operating companies. The OECD verifies inconsistencies and the full countries’ data sheets are sent to their respective capitals for validation.5

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The Global Survey on Digital and Sustainable Trade Facilitation, conducted every two years since 2015, includes modules on Paperless Trade and Cross-Border Paperless Trade. The first, shows the extent to which foreign trade operators in each country may interact with the authorities of that same country digitally, to process permits, make payments and other procedures. On the other hand, the second module shows the extent to which these same operators may conduct processes and submit documents digitally before the authorities of other countries involved in their export or import operations. The information used to determine the national scores comes from the government of each country answering the questionnaire prepared by the five Regional Commissions of the United Nations. In Mexico, answering the questionnaire was coordinated by the SE, in collaboration with other relevant public agencies. The responses provided were later validated by ECLAC.

Mexico has obtained the best score of the region in all editions of the Global Survey (2015, 2017, 2019 and 2021). As in previous years, in 2021 Mexico surpassed the regional average score in both the set of measures included in the Global Survey and the two modules related to paperless trade (see figure 2). In fact, Mexico achieved an implementation rate of 100% in the module concerning the “within borders” dimension of paperless trade. In other words, the Mexican government considers that the 8 measures included in this module are fully implemented (see chart 1).

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6 The results of the Global Survey, as well as the Regional Reports on Latin America and the Caribbean prepared by ECLAC, can be found at https://www.untfsurvey.org/.
7 A measure can be fully implemented, partially implemented, in pilot phase, or not implemented. The respective implementation rates are 100%, 66.7%, 33.3% and 0%.
Legal and technical readiness for paperless cross-border trade: the case of Mexico

Figure 2
Mexico and Latin America & the Caribbean (14 countries): average rates of implementation of the measures included in the Global Survey on Digital and Sustainable Trade Facilitation, 2021
(Percentages)

Table 1
Measures included in the paperless trade module of the Global Survey on Digital and Sustainable Trade Facilitation, 2021

<table>
<thead>
<tr>
<th>Number</th>
<th>Question</th>
<th>Mexico</th>
<th>Latin America and the Caribbean average score (14 countries)</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td>Is the customs system automated in your country?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>Is an Internet connection available at border crossings for all customs and other trade control agencies?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>Is there an Electronic Single Window System in your country?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>Can traders submit customs declarations electronically?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>If certain transactions are subject to import or export permits, may these be requested and issued electronically?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>Can Sea Cargo Manifests be submitted electronically?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>Can Air Cargo Manifests be submitted electronically?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>Can Certificates of Preferential Origin be requested and issued electronically?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>23</td>
<td>Can customs duties and fees be paid by electronic means?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>24</td>
<td>Can customs refunds be requested electronically?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


Table 2
Mexico and Latin America & the Caribbean (14 countries): rates of measures’ implementation on cross-border paperless trade from the Global Survey on Digital and Sustainable Trade Facilitation, 2021
(Percentages)

<table>
<thead>
<tr>
<th>Number</th>
<th>Question</th>
<th>Mexico Implementation rate</th>
<th>Latin America and the Caribbean Implementation rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>25</td>
<td>Is there a legal framework in your country facilitating cross-border electronic transactions?</td>
<td>100</td>
<td>90.5</td>
</tr>
<tr>
<td>26</td>
<td>Can official certification authorities issue digital certificates to traders for them to conduct electronic transactions?</td>
<td>100</td>
<td>83.3</td>
</tr>
<tr>
<td>27</td>
<td>Can customs declarations be electronically exchanged between your country and other countries?</td>
<td>33.3</td>
<td>42.9</td>
</tr>
</tbody>
</table>


aThe 14 countries are: Argentina, Chile, Colombia, Costa Rica, Cuba, Dominican Republic, Ecuador, Guatemala, Mexico, Panama, Paraguay, Peru, Saint Kitts and Nevis, and Uruguay.
<table>
<thead>
<tr>
<th>Number</th>
<th>Question</th>
<th>Mexico Implementation rate</th>
<th>Latin America and the Caribbean Implementation rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>28</td>
<td>Can Certificates of Origin be electronically exchanged between your country and other countries?</td>
<td>66.7</td>
<td>57.1</td>
</tr>
<tr>
<td>29</td>
<td>Can Sanitary or Phyto-Sanitary (SPS) Certificates be electronically exchanged between your country and other countries?</td>
<td>66.7</td>
<td>45.2</td>
</tr>
<tr>
<td>30</td>
<td>Can exporters in your country collect payment from a documentary letter of credit on the basis of electronic documents (this is, without lodging paper-based documents)?</td>
<td>100</td>
<td>23.8</td>
</tr>
</tbody>
</table>


It should be noted that questions 27, 28 and 29 refer to cross-border electronic exchange of diverse documents required in foreign trade operations. By definition, such measures cannot be considered fully implemented unless the country under review electronically exchanges such documents with all of its partners. In the case of Mexico, it was reported mid-2021 that:

- The electronic exchange of information of the Customs Declaration between the member countries of the PA, through their respective VUCE, was in testing stage.

- The electronic exchange of Certificates of Origin with Peru (AICP) was in testing stage, and the exchange with Uruguay (Mexico-Uruguay FTA) was in mapping and analysis phase.

The electronic exchange of Sanitary and Phyto-Sanitary Certificates with other member countries of the PA, through their respective VUCE, was operational. Likewise, in 2020 pilot tests began with the United States, Costa Rica, Argentina and the United Kingdom.
II. Assessing legal readiness for cross-border paperless trade in Mexico

This chapter presents the results of the analysis of the national legal framework governing cross-border electronic trade of goods, such results are based both on research and information provided and field interviews carried out with certain stakeholders, whose contributions are considered in annex 2.

The chapter is divided in four sections: section A. Electronic Transactions and Signatures Law, in which the general principles of electronic transactions are analyzed i) the validity of electronic signatures and trust services ii) the recognition of the right to privacy and the protection of personal data iii) including the location of data, the confidentiality of commercial information in electronic format and the existence of computer crimes in paperless commerce; data exchange iv) and the preservation of data and electronic evidence v) Section B. Laws related to paperless trading systems, which addresses aspects of the legal framework, such as the establishment of a paperless trading system i) the quality of the information exchanged through said system ii) as well as on-service level agreements and memorandums of understanding iii) Section C. Cross-border aspects, which includes aspects related to relevant international agreements for the facilitation of paperless cross-border trade i) and international standards, guidelines and recommendations ii) and finally, Section D. Other considerations, where Mexican legislation is analyzed regarding: the property of information in the paperless trading system i) liability issues related to the cross-border paperless trading system ii); dispute resolution and conflict of laws iii) electronic payments and electronic transferable records iv) and competition law.

The analysis of the aforementioned legal aspects allows us to conclude that the Mexican legislation on electronic commerce and on privacy and protection of personal data is robust and complete, that adopts internationally recognized general principles and that its supported in the commitments assumed by Mexico under various international trade treaties such as CPTPP, USMCA, and PA. In addition, this analysis allows us to conclude that Mexico has a system that allows the customs clearance of goods through import declarations (pedimentos) that are completely transmitted electronically and also has a single window that allows processing most of the permits and certificates necessary for import and export electronically.
However, despite the improvements in the area of paperless trade, there are still some gaps in the Mexican legal framework, and filling those gaps would allow deepening the implementation of cross-border electronic commerce. To mention a few, we found out that it would be convenient to reform the legislation to: explicitly recognize electronic endorsements of credit titles; establish standards and guidelines on the recognition of data messages, electronic signatures and certificates of trust services generated abroad; establish the consequences of failing to comply with the duty to use secure services for data preservation, messages and digitization of documents. It is also noted that, although Mexico has a sufficient and complete legal framework, there are no regulations specifically referring to cross-border paperless trade. Thus, in order to elucidate some aspects of such trade, general rules must be applied, generating lack of clarity on certain issues, such as property protection and confidentiality of the information exchanged in the paperless trading system, as well as civil and administrative liabilities of authorities and individuals that operate and provide services in the paperless trading system. Likewise, areas of opportunity are observed for the strengthening of paperless trade, such as completing procedures incorporation to VUCEM and extending the agreements for the use of electronic certificates of origin between commercial partners.

A. Electronic transactions and signatures law

1. Electronic transactions law: general principles

Mexican legislation accepts electronic transactions and has adopted the principles set by the UNCITRAL Model Law on Electronic Commerce. Although there is no regulatory body concentrating all the provisions applicable to electronic transactions, these transactions are mainly regulated by the CC and the CCF.

Both the CC and the CCF recognize the validity of communications by electronic means made to express the will, make and accept offers, enter into contracts and acts of commerce. Furthermore, they prohibit denying legal effects, validity or mandatory force to any type of information for the sole reason of being contained in a Data Message.8

The CC adopts the principles of technological neutrality, autonomy of will, international compatibility and functional equivalence of data messages and electronic signatures in relation to information documented in non-electronic media.9 Consequently, Mexican law allows the use of electronic, optical or any other technology in commercial acts, without requiring the use of any specific technology, method or product to carry out electronic transactions.

It should be noted that Mexican law subordinates the validity of Data Messages10 to certain requirements: they must be complete, that is, without undergoing modifications since its creation and being accessible for subsequent consultation.11 So, when the law requires an act to be recorded in writing, this requirement will be considered fulfilled through data messages, as long as the information contained therein remains complete and accessible for further consultation.12

For such purposes, the Mexican official standard NOM-151-SCFI-2016 “Requirements to be observed for the conservation of data messages and digitization of documents”, establishes the duty of merchants to obtain certificates issued by Certification Service Providers accredited by the SE, regarding the digitization of documents and the preservation of data messages.13 Even so, these

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8 Articles 1803, 1805, 1811 of the CCF, 80 and 89 of the CC.
9 Article 89 and 93 of the CC.
10 According to this term it is defined in article 89 of the CC. Note: This document is included in annex 6 Regulations, which includes publication data and a hyperlink.
11 Article 49 of the CC.
12 Articles 93 of the CC and 1834 bis of the CCF.
13 Numeral 5.1 of NOM-151-SCFI-2016. Requirements to be observed for the preservation of data messages and digitization of documents. Note: This document is included in annex 6 Regulations, which includes publication data and a hyperlink.
provisions do not establish any sanction in the event merchants fail to comply with this duty. The natural consequence of such failure would be not having said records which constitute reliable evidence of the electronic records, which could result in a greater burden of proof in the event of a dispute. Trust services provide more legal certainty about the integrity of digital documents and data messages, although they are not necessary for such integrity to be recognized nor a requirement for the validity of electronic transactions.

Although Mexican legislation on electronic transactions is solid, it still faces challenges, such as the endorsement of electronic credit instruments. Although the provisions of the CC allow the issuance of checks and promissory notes in electronic format, their electronic transferability is not clear under the LGTOC, which still requires endorsement in the documents or, if necessary, attaching the endorsement to them. In this regard, a reform initiative is currently pending a vote in the Senate of the Republic; such reform aims to provide more clarity on the full validity of transactions and electronic evidence and which includes an amendment to the LGTOC to expressly referring to the electronic endorsement of titles of credit. Although this initiative represents a huge progress in recognizing the possibility of issuing and transferring credit instruments electronically, it is not based on the UNCITRAL Model Law on Electronic Transferable Documents.

It should be noted that Mexico could analyze the convenience of adhering to the United Nations Convention on the Use of Electronic Communications in International Contracts, in order to increase legal certainty in electronic transactions.

2. Electronic signatures and trust services

Mexican legislation recognizes the validity of electronic signatures in commercial tasks and requires the use of advanced electronic signatures in certain tax, customs and administrative procedures.

The CC adopts the principles of the UNCITRAL Model Law on Electronic Signatures by expressly establishing the functional equivalence of the electronic signature in relation to the autograph signature. The CC itself grants validity to any electronic signature in relation to a Data Message.

This way, the CC establishes that a requirement set by the law or an agreement between parties in relation to a signature contained in a Data Message should be satisfied, as long as it is appropriate in accordance with the purposes for which the latter was generated.

The CC also establishes that electronic signatures created outside of Mexico will produce the same legal effects as those created within the country, as long as they present an equivalent degree of reliability, in accordance to international standards recognized by Mexico and any other pertinent mean of conviction. However, up to this date no guidelines or technical elements have been established to implement the recognition of foreign electronic signatures.

The CC defines the electronic signature as the data in electronic form consigned, attached or logically associated to a data message, by means of any technology, that identifies the signatory of the data message and indicates that it approves the information contained therein.

In addition, the CC also recognizes advanced or reliable electronic signatures, which are those whose creation data correspond exclusively to the signatory and are under the exclusive control of the signatory, and which allow any alteration of the signature itself or of the information contained in the data message to be detected. In this regard, the code establishes that Certification Service Providers

\[14\] Articles 26 and 29 of the LGTOC.
\[15\] See https://www.senado.gob.mx/64/gaceta_del_senado/documento/114036.
\[16\] Article 89 of the CC.
\[17\] Article 97 of the CC.
\[18\] Article 114 of the CC.
accredited by the SE may verify the identity of the users and their connection with the means of electronic identification, verify the integrity and sufficiency of the data messages and their electronic signature, as well as keeping a record of the identification elements of the signants and of the information used to verify the reliability of the advanced electronic signatures and issuing the corresponding certificates. The use of these trust services provides legal certainty about the reliability of advanced electronic signatures, although it is not a necessary validity requirement for their use.

On the other hand, the LFEA regulates the use of the advanced electronic signature in electronic documents and in data messages related to communications, services, legal acts, actions and administrative procedures. In accordance with the LFEA, electronic documents and data messages that have an advanced electronic signature will produce the same effects as printed documents presenting an autograph signature. The LFEA establishes as principles of the advanced electronic signature the functional equivalence in relation to an autograph signature, authenticity, integrity, technological neutrality, non-repudiation and confidentiality. However, for the use of the advanced electronic signature, LFEA requires that the signant must have a private key under its exclusive control and a digital certificate issued by SFP, SE, SAT, or other bodies that have a favorable opinion from SFP.

In tax law, according to the CFF, the documents that must be submitted to tax authorities, such as tax returns, must be digital and have an e.signature, which is an advanced electronic signature of the author covered by a valid certificate that confirms the link between the signant and the signature creation data. The CFF expressly establishes that the e.signature will guarantee the integrity of the digital document in which it is used and will produce the same effects that the law grants to documents with an autograph signature. Similarly, the LA expressly recognizes that the use of an e.signature will produce the same effects as a autograph signature.

The e.signature is especially relevant for the cross-border trade of goods, since it is necessary to access the VUCEM to obtain certain prior import permits and certificates of origin, and also to access the SEA to process import and export declarations.

3. Privacy and data protection

(a) Personal data

The CPEUM recognizes the protection of personal data as a human right that may only be limited for national security, public order, security, public health and the protection of third-party rights. The CPEUM also recognizes ARCO rights for the use of personal data by third parties without prior authorization.

Privacy and data protection are regulated by the LFPDPPP and its Regulations, as well as the LGPDPPSO. The first two are intended to protect personal data held by private entities, while the second is to protect those held by public entities. These laws are intended to guarantee the privacy and the right to informative self-determination of individuals. For this purpose, said legal instruments oblige those responsible for data to observe the principles of legality, purpose, loyalty, consent, quality, proportionality, information and responsibility.

The general regime established by these laws governs the privacy and protection of data concerning identified or identifiable individuals. The laws in question subject the transfer of personal data...

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19. Articles 100 and 101 of the CC.
20. Articles 4, 7, 8, 9, 23 and 24 of the LFEA.
21. Articles 17-D of the CFF and 36 of the LA.
22. Articles 17 of the Decree establishing the Mexican Digital Window for Foreign Trade and 36 of the LA.
24. Articles 6 of the LFPDPPP and 16 of the LGPDPPSO.
data to certain requirements. The LFPDPPP establishes that the transferring private entity bound by the law must notify the third party of the privacy notice and the purposes to which the data processing is subject, and the third party must assume the same obligations as the transferring entity regarding the transferred data. On its part, the LGPDPPSO requires that the transfer of data by public organizations must be carried out in accordance to the applicable regulations, in such a way that the scope of the data processing can be demonstrated.\footnote{Articles 36 of the LFPDPPP and 66 of the LGPDPPSO.}

The LFPDPPP and the LGPDPPSO are both based on international standards, such as the APEC Privacy Framework and the Guidelines for the Harmonization of Data Protection in the Ibero-American Community of the Ibero-American Data Protection Network. In addition, Mexico is part of the Convention 108 of the Council of Europe for the for the Protection of Individuals with Regard to Automatic Processing of Personal Data, which dates back to 1981. Mexico is also part of the Additional Protocol to the Convention for the Protection of Individuals with regard to Automatic Processing of Personal Data, regarding supervisory authorities and transborder data flows, concluded in 2001. However, Mexico has not yet ratified the modernized version of said Convention 108, which was finalized in 2018 and is known as Convention 108+. This version deepens some aspects related to genetic and biometric personal data, including the obligation to notify authorities any data infringement that could severely interfere with the fundamental rights of the data owners, any minimization on the required data for paperwork processing and the increase on transparency regarding processed data.

Various free trade agreements signed by Mexico establish obligations on privacy and data protection in electronic trade and in cross-border information transfers. Thus, the CPTPP obliges contracting parties to adopt or maintain a legal framework that protects the personal information of users of electronic trade.\footnote{Article 14.8 of the CPTPP.} Similarly, the Additional Protocol to the Framework Agreement of the Pacific Alliance establishes that the legal framework of the contracting parties aims to protect the personal information of users who participate in electronic trade, taking into account existing international standards in this matter.\footnote{Article 13.8 of the Additional Protocol to the Framework Agreement of the Pacific Alliance.} In addition, the USMCA stipulates that the legal framework of the contracting parties will take into account the APEC Privacy Framework and the OECD Council Recommendation on the OECD Guidelines on privacy protection and cross-border flows of information. In addition, USMCA recognizes that the APEC Cross-Border Privacy Rules system is a valid mechanism to facilitate cross-border information transfers while protecting personal information.\footnote{Article 19.8 of the T-MEC.} It should be noted that the scope of the provisions established by the USMCA on the matter is consistent with the ratification of the aforementioned Convention 108+.

(b) Data localization

Mexican legislation does not require that the collection, treatment or storage of data should be carried out in a specific jurisdiction, with the exception of some financial provisions, which require certain institutions to maintain the location of servers in Mexican territory. Likewise, various treaties signed by Mexico, such as the CPTPP and USMCA stipulate that the Parties may not require the location of computer facilities in their territory as a condition for doing business.\footnote{Articles 19.12 of the T-MEC and 14.13 of the CPTPP.}

(c) Confidentiality of information in electronic format

Although there is no special law that protects the confidentiality of commercial information in electronic format, this protection derives from the general legal framework which recognizes the right to private property. Moreover, the LFPPI grants this protection by establishing that all information of
commercial use that is kept as confidential and that means a competitive or economic advantage, should be considered as an industrial secret. It also establishes that any improper appropriation or disclosure of an industrial secret can be considered an infringement or a crime, respectively.\(^{30}\)

However, confirming that commercial information in electronic format transmitted in the paperless trading system falls under the definition of industrial secret of the LFPPI, may rise legal uncertainty about the scope of the protection provided, in many cases.

(d) Cybercrime in paperless trade

The CPF considers the misappropriation, modification, destruction, causing loss and copying of information contained in computer systems or equipment protected by some security mechanism, as a crime.\(^{31}\) However, the CPF does not specifically criminalize other malicious computing behaviors related to the information transmitted in paperless trade system. Such malicious computing behaviors could only be prosecuted when they configure other generic crimes, such as theft or fraud. This complicates the prosecution of such behaviors, reducing the effectiveness of the legal framework.

At this point it should be remembered that Mexico has not yet ratified Convention No. 185 of the Council of Europe on Cybercrime (Budapest Convention). According to this Agreement, the contracting parties must adopt measures to criminalize various computing behaviors, among which some are related to paperless trade, such as illegal access to information, illegal interception of communications and infringement of intellectual property rights.

4. Data sharing

VUCEM plays a very important role in the Mexican paperless trade system. It allows importers and exporters to process prior import permits, phytosanitary certificates, certificates of origin, and other procedures before various Secretaries of State. The transmission of information within the VUCEM is regulated by the Decree which creates the VUCEM and the VUCEM Conditions of Use Guide. In accordance with these regulations, authorities that participate in the VUCEM must adopt an open, compatible and interoperable computer network architecture, in accordance with the best international practices in the matter.\(^{32}\)

5. Data retention and electronic evidence

(a) Data retention

The CC obliges merchants to keep data messages and any other document that creates commercial rights and obligations, for a minimum period of ten years. All data messages must be kept intact, this is, without modifications since their creation and being accessible for later consult.\(^{33}\)

For tax purposes, the CFF requires taxpayers to keep their accounting records, in electronic or digital media, for a period of five years.\(^{34}\)

(b) Trust services for data retention

The CC and the Official Mexican Standard NOM-151-SCFI-2016 "Requirements that must be observed for the conservation of data messages and digitization of documents", establish that merchants have the duty to have a certificate of conservation of data messages issued by a Certification Services

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\(^{30}\) Articles 163, section I, 386, section XIV and 402, section III of the LFPPI.

\(^{31}\) Article 211 bis 1 of the CPF.

\(^{32}\) Article Three of the Decree by which the Mexican Digital Window for Foreign Trade is created.

\(^{33}\) Article 49 of the CC.

\(^{34}\) Article 30 of the CFF.
Provider accredited by the SE, to keep data messages containing contracts, agreements or commitments binding rights and obligations, general ledgers, minute books and receipts of their operations.\textsuperscript{35}

Such certificates allow presuming the integrity of data messages. However, even though the use of certification services is mandatory in certain commercial cases, it is not a condition of validity of the data messages and digital documents, since the CC provides that their validity cannot be denied by the mere fact of being contained in a data message.\textsuperscript{36}

It should be noted that certification service providers who damage, destroy or cause the loss of electronically stored information in their possession, should respond for damages and losses in terms of the civil legislation\textsuperscript{37} and could even incur in criminal liability.\textsuperscript{38} The civil liability of certification service providers is not specifically regulated, so it could be governed contractually. At this point it should be noted that the scope of the civil liability of trust service providers could be clarified by implementing specific provisions on electronic commerce.

Additionally, the certification service providers in possession of the electronically stored information acting under the accreditation of the SE, could incur in administrative liability resulting in the temporary or permanent suspension of its activities, depending on the seriousness of the case.\textsuperscript{39}

\textbf{(c) Electronic evidence}

The CFPC expressly recognizes any information generated or communicated by electronic, optical or any other technology, as evidence.\textsuperscript{40} Also, the CC establishes that data messages can be used as evidence in court and in any proceedings before authorities, and recognizes that their evidentiary value will be the same as that of printed documents, as long as the electronic evidence is adjusted to applicable commercial law.\textsuperscript{41}

Electronic evidence obtained abroad must be considered admissible, and subject to the same reliability and integrity assessment parameters as evidence obtained in Mexico. The latter since the CFPC and the CC admit data messages and information generated or communicated in electronic media as evidence, without specifying the place where they are generated, stored or collected.

Electronic evidence should be equally admissible in procedural, administrative and tax legislation since the CFPC is the procedural law that is supplementary applied in these matters.\textsuperscript{42}

However, the assessment of electronic evidence depends largely on the participation of experts, who can provide expert opinions on technical, regulatory and international standardization aspects of the formation, conservation, integrity and reliability of electronic evidence.

\textsuperscript{35} Articles 34, 38 and 49 of the CC and Numeral 5.1 of NOM-151-SCFI-2016. Requirements to be observed for the preservation of data messages and digitization of documents.

\textsuperscript{36} Article 89 bis of the CC.

\textsuperscript{37} Article 2104 of the CCF.

\textsuperscript{38} Article 211 bis 1 of the CPF.

\textsuperscript{39} Article 110 of the CC.

\textsuperscript{40} Article 210-A of the CFPC.

\textsuperscript{41} Articles 89 bis and 1205 of the CC.

\textsuperscript{42} Articles 2 of the Amparo Law, 2 of the LFPA, 1 of the LFPCA and 5 of the CFF.
B. Laws relating to paperless trade systems

1. Establishment of a paperless trade system

There is a system focused on paperless trade in Mexico, formed by the SEA and the VUCEM.

The SEA is the system used to process import and export declarations electronically and is regulated by the LA, its regulations and the RGCE. The SEA is operated by the SAT.43

The VUCEM allows importers and exporters to process prior import permits from various agencies, phytosanitary certificates, certificates of origin, electronic value proofs and other procedures at a single point.44 The VUCEM was created through the Decree creating the Mexican Digital Window for Foreign Trade and operates under the VUCEM Conditions of Use Guide. The SAT is the authority in charge of managing the VUCEM, other agencies empowered to regulate the entry or exit of goods from the national territory, such as the SAT, ANAM, SE, SSA, SEDENA, SEMARNAT, SADER, SENER, INBAL and INAH also participate at the VUCEM.45

The joint operation of the SEA and the VUCEM practically allows importing and exporting of goods without using printed documents. However, there are still some documents that must be physically presented to customs, such as some phytosanitary certificates that involve inspection of the goods at the point of entry into the country.

2. Quality of the information exchanged through the paperless trade system

The data and documents that should be electronically transmitted to the SEA and the VUCEM are subject to the same substantive requirements established for their printed equivalents, by applicable customs, commercial, tax or administrative legislation, as well as the current international treaties in force entered by Mexico.

The electronic or digital documents received at the VUCEM and the SEA have full evidentiary value and the bound subjects must keep them in the format they have been generated, and keep them in electronic files which should be considered part of their accounting records.46

3. Service Level Agreements and Memorandum of Understanding

The SAT has not disclosed service level agreements with its SEA and VUCEM service providers, beyond the publication of the basis of the respective public tenders. On the other hand, the SAT does not enter memorandums of understanding with the government bodies that participate in the VUCEM, since each of them indicates which of their procedures may be carried out on the platform by issuing an Agreement.

Although the disclosure of said agreements is not necessary for the operation of the paperless trade system, it would provide certainty about the scope of the operating standards of the system and, therefore, about the obligations of the authorities and service providers before its users.

43 Articles 6, 16 and 36 of the LA.
44 First Article of the Decree by which the Mexican Digital Window for Foreign Trade is created.
45 Second and Twelfth Articles of the Decree creating the Mexican Digital Window for Foreign Trade.
46 Article 6 of the LA.
C. Cross-border aspects

1. Relevant international agreements for the facilitation of cross-border paperless trade

Mexico is part of the AFC of the WTO, which bounds its Parties to implement various trade facilitation measures. Among the relevant measures for cross-border paperless trade are keeping systems allowing the electronic payment of taxes and duties levied by importation and exportation of commodities, the acceptance of electronic copies of documents and the implementation of a Single Window as the only point of entry for documents related to import or export.47

Various free trade agreements entered by Mexico include relevant commitments in the electronic trade arena, such as the CPTPP, the USMCA, the Additional Protocol to the Framework Agreement of the Pacific Alliance and the Mexico-Panama FTA. The CPTPP and the USMCA are the most advanced treaties and both establish provisions related to non-discrimination of digital products, establishing a national framework for electronic transactions, authentication and electronic signature, consumer protection, protection of personal information, paperless trade, cross-border transfer of information by electronic means, location of computer facilities, unsolicited commercial information and cybersecurity.

Regarding technical or operational international agreements enacting the legal recognition of electronic communications or documents, it should be mentioned that the Annex to the Resolution that establishes the General Rules regarding the application of the provisions on customs matters of the Additional Protocol to The Framework Agreement of the Pacific Alliance establishes a format for electronic certificates of origin. These certificates were implemented under Decision 4 of the Free Trade Commission of the Additional Protocol to the Framework Agreement of the Pacific Alliance, regarding the General Procedure for the Issuance and Reception of Certificates of Origin Issued and Electronically Signed in the Framework of the Interoperability of the Foreign Trade Single Windows in the AP.

In addition, as a member of the International Phytosanitary Protection Convention, Mexico complies with the secure data exchange guidelines, which are established in Appendix 1, of the International Standard for Phytosanitary Measures 12, on electronic Certification.

Besides, it should be noted that, according to our study, MRAs have been used in Mexico to increase AEO communications security and also regulatory authorities have entered agreements to recognize electronic signatures in phytosanitary and origin certificates.

2. International standards, guidelines and recommendations

Mexico is obliged by the CPTPP and by the USMCA to allow cross-border transfer of information by electronic means to do business.

In addition, as part of the TFA, Mexico should use international standards as basis for its import formalities and procedures, in order to promote cross-border interoperability and the flow of data.48 In this regard, Mexico follows the SAFE and the WCO Data Model, as a member of this organization.

D. Other considerations

1. Ownership of information in the paperless trading system

The law protects the information exchanged through the paperless trade system, so, pursuant to the CFF and the LGRA, the tax and customs officials that participate in the SEA and the VUCEM are

47 Article 7, paragraph 2 and article 10, paragraphs 2 and 4, of the TFA.
48 Article 10.3 of the AFC.
obliged to keep absolute confidentiality of the data provided by importers and exporters. Such reserve admits few exceptions, like sharing information with officials in charge of administering and defending federal tax interests and fulfilling judicial orders.  

In broader terms, under the LGRA, public servants improperly using or disclosing information to which they have access due to their assignment may face economic sanctions, removal from office and even disqualification from public service. In doing so, they could even commit a crime, since the CPF criminalizes unauthorized access or reproduction of information in State computer systems or equipment.  

However, the lack of rules that specifically regulate the property of the information transmitted in the paperless trade system, reduces certainty about the reach of its protection.

2. Liability issues related to the cross-border paperless trade system

The SAT, the ANAM and the other authorities regulating foreign trade matters interacting in the VUCEM may be held accountable for their operation or interaction with the system in terms of the LFRPE.

According to the LFRPE, importers, exporters and customs suffering damage resulting from an irregular administrative activity of an authority operating or interacting with the VUCEM could be entitled to compensation. The administrative activity of the State should be considered irregular if it lacks legal basis or legal justification legitimizing the damage caused. However, the obligation to indemnify should not apply in fortuitous events, force majeure, scientific or technical unpredictability, or if the damage was caused by the affected party.

In the case of the SEA, it should be borne in mind that the services of prevalidation of import and export declarations and electronic data processing are provided to importers, exporters and customs brokers, directly by individuals authorized by the SAT. In these cases, the private entities providing said services could be held liable under civil law. The breach of obligations entails indemnification for damages caused in accordance to the CFF.

Similarly, service providers, such as providers of internet services and providers of user identity verification services, verification of the integrity of data messages, verification of electronic signatures, issuance of digital time stamps, issuance of records of conservation of data messages, digitization of documents and other trust services, may be subject to liability before their clients in terms of civil law. The providers of said services could be obliged to indemnify their clients for the damages they suffer as a result of the breach in the service, or else, respond as stipulated in the respective contract.

At this point it is worth mentioning that it would be convenient to establish norms that define the scope of the economic liability of the State and civil liability of the private entities providing services in the paperless trade system, in case they cause damage to individuals using the system. The latter, in order to reduce the uncertainty resulting on the need to resort to general legislation to define said liabilities.

On the other hand, importers, exporters and customs brokers who transmit inaccurate or false information and data to the SEA may be liable for committing infractions and, therefore, be sanctioned by the customs authorities in terms of the applicable law.

49 Articles 69 of the CFF and 3 of the LA.
50 Articles 7 and 84 of the LGRA.
51 Article 211 bis 2 of the CPF.
52 Articles 1 and 3 of the LFRPE.
53 Article 2104 of the CCF.
54 Article 2104 of the CCF.
55 Articles 176, 178, 183-A, 184, 184-A, 184-B and 185 of the LA.
3. Dispute settlement and conflict of laws

(a) Forum and law choice

Mexican law does not establish special rules determining the forum and the applicable law in disputes arising from paperless trade, so the general rules provided by the law must be followed. These rules allow contracting parties to designate the forum to settle their disputes with freedom and establish that, in the absence of a stipulation, the competent judge will be the one designated by the debtor, and that, in the absence of this designation, it will be the one corresponding to the domicile of the debtor. On the same note, the law allows the contracting parties to designate the applicable law and establish that, in the absence of a stipulation, Mexican laws will govern the acts and events that occur in the country or that should be executed in the country, unless the law itself or the international treaties entered by Mexico provide that foreign law should be applied.

(b) Alternative means of dispute resolution

The CC recognizes commercial arbitration, both national and international, as an alternative mean of conflict resolution, except in those cases in which international treaties entered by Mexico or other laws exclude the arbitration procedure or establish a different procedure. The CC itself establishes that an arbitration award will be recognized as binding regardless of the country where it was issued, and that it may be executed by submitting a written request to a judge.

It is worth mentioning that the provisions of the CC are based on the UNCITRAL Model Law on International Commercial Arbitration, and that Mexico is a party to the UNCITRAL Convention on the Recognition and Enforcement of Foreign Arbitral Awards.

However, Mexican law has not yet adopted the UNCITRAL Model Law on International Commercial Mediation and International Transaction Agreements Resulting from Mediation.

(c) Electronic dispute resolution mechanisms

Although the law does not establish an electronic dispute resolution mechanism exclusive to paperless trade, the jurisdictional authorities allow the use of electronic means to conduct lawsuits in commercial matters, including electronic files, email notifications and videoconference hearings. In addition, procedural, criminal, tax, administrative, labor and bankruptcy regulations allow trials to be processed through electronic means.

4. Electronic payments and electronic transferable records

(a) Electronic payments in paperless trade

In the paperless trade system, tariffs, taxes, fees, countervailing duties and fines, derived from imports and exports, should be paid through a system called PECE. Under this system, the SEA generates a referenced deposit key (data capture line) for each import or export request. Importers, exporters or customs brokers may pay the data capture line before a bank authorized to collect foreign trade taxes, using any method of payment made available by the bank, such as paying through the bank website or payment at the branch using check, credit card or debit card.

56 Article 1104 of the CC.
57 Article 12 and 13 of the CCF.
58 Articles 1415 and 1461 of the CC.
59 General AGREEMENT 12/2020 of the Plenary of the Council of the Federal Judiciary, which regulates the integration and processing of electronic files and the use of videoconferences in all matters that are the responsibility of the jurisdictional bodies in charge of the Council itself. Note: This document is included in annex 6 Regulations, which includes publication data and a hyperlink.
60 Article 83 of the LA. and rule 1.6.2. of the RGCE by 2022.
(b) **Transferable Electronic Records in Paperless Trade**

The bill of lading is the only transferable document necessary to process import requests through the SEA in terms of the LA. Customs regulations do not make any distinction between electronic and paper bills of lading, so both should be considered equally acceptable.

5. **Competition law**

(a) **Competition law**

In Mexico, the LFCE governs economic competition. The purpose of this law is to guarantee free competition and concurrence, as well as to prevent, investigate and combat monopolies, monopolistic practices, concentrations and other restrictions on the efficient functioning of markets.

The LFCE is applicable to all areas of economic activity, including single window operators or providers of paperless trade services.61

(b) **Authorized economic operators**

Pursuant to the LA, Mexican companies meeting certain tax, customs and security standards, may be registered by the SAT in the registry of certified companies under the AEO modality.

The AEO modality certification does not grant preferential access to the paperless trade system itself, but rather grants various benefits, such as clearing goods from customs using exclusive "Express" lanes, clearing export goods from customs at private facilities, rectifying import and export declarations without authorization as the SAT provides in the cases and terms through RGCE and fine reductions in certain cases.62

(c) **Selection of service providers in paperless trade**

The selection of service providers in paperless trade for the government is governed by the general framework established by the CPEUM and its Regulatory Law, which is the LAASSP, and its Regulations. These regulations establish as a general rule that suppliers should be selected through public bidding. Bids can be national, international limited to countries which have a free trade agreement with Mexico with stipulations for government purchases, or international open to any country. The tenders are published in the Compranet System so that all interested parties have the opportunity to participate. The tenders are also published in the DOF for information purposes. Exceptionally, the law allows suppliers to be chosen through an invitation procedure extended to at least three candidates or by direct award.63 It should be noted that the SAT selected a VUCEM service provider through an international open electronic public tender.

On the other hand, electronic data processing services related to customs clearance can only be provided to importers and exporters by persons authorized for this purpose by the SAT in terms of the LA. In accordance with the law, the SAT will grant authorization to provide said services to those who meet the requirements established by the same law and in the call issued by the SAT itself. It should be noted that the law does not establish Mexican nationality as a requirement to obtain authorization. However, considering that the services in question impact the customs control of foreign trade goods, it is likely that, when issuing the respective call, the SAT establishes that the applicant for the authorization should be Mexican entities.64

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61 Article 1 of the LFCE.
62 Articles 100-B of the LA and rule 7.3.3. of the RGCE by 2022.
63 Article 26 of the LAASSP.
64 Article 16 of the LA.
III. Evaluation of technical readiness for cross-border paperless trade in Mexico

This section describes the main findings of the analysis on the technical environment for cross-border paperless trade. This analysis is based on research, provision of information and interviews, the results of which are reflected in annex 3. The section is divided into two sections. Section A focuses on technical issues related to the implementation of electronic commerce systems and a paperless environment at the national level, regarding the following eight categories: i) institutional and governance bodies for electronic data exchange in paperless environment; ii) level of automation; iii) ICT infrastructure (connectivity, sustainability and recovery); iv) security; v) business process re-engineering; vi) data harmonization and standardization; vii) capacity-building; and viii) other matters. In the other hand, Section B is aimed at assessing the ability of the country or an organization to embark on cross-border paperless trade data exchange.

The most relevant findings of the evaluation on the technical readiness of cross-border paperless trade are the following. Mexico is at a high level of implementation of the systems that promote cross-border paperless trade, with over 30 years of experience in interacting electronically with customs users (see Box 1). Thus, the country has robust systems to i) receive advance information prior to cargo arrival, ii) carry out the customs clearance process with transmitted information, that is, paperless, iii) automated and in advance risk analysis, iv) electronic accounting and v) post-clearance audit, remotely by electronic means.

Mexico has a globally recognized single window system (VUCEM),\(^{65}\) which integrates the main regulatory agencies with procedures related to import, export and transit operations. The VUCEM also integrates various procedures that are necessary to carry out activities as an importer, exporter and third parties such as customs brokers, terminal operators and carriers, which as a whole facilitate

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carrying out foreign trade activity, submitting the applications remotely and paperless. These systems are complemented with electronic payment mechanisms and recognition of these payments via electronic systems, as well as real-time information and traceability services on the status of the containers and the import and export operation.

Through the VUCEM, approximately 360 different procedures can be carried out with more than 650 modalities and the trend will continue to be to add more procedures and functionalities to the single window system. From its creation until 2022, been transmitted approximately 272 million e-value goods receipts, 203 million digitized documents, 160 thousand registered users, 14 million registered requests, more than 12 million completed procedures.66

<table>
<thead>
<tr>
<th>Box 1</th>
<th>Brief background and evolution of electronic customs systems in Mexico</th>
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<tbody>
<tr>
<td>• Prior to the use of desktop computers, the customs declarations were filled out with typewriters and copied through carbon paper and the selection mechanism for customs inspections was random or arbitrary without the use of ICT (1987).</td>
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<tr>
<td>• In 1989, the CADEPA system was created through which the customs broker filled out the information on diskettes and the authority compiled said information in a single system.</td>
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<td>• In 1990, the SAAI emerged, identified as the official software developed by the SHCP to fill out customs operations’ information, allowing for the first-time links with users and generating a statistical record of foreign trade operations.</td>
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<tr>
<td>• The SAAI evolved, adding more features to the system such as the random selection inspection mechanism and automated risk analysis, having a second phase (SAAI 2) in 1996 and a third phase (SAAI 3) in 1998.</td>
<td></td>
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<tr>
<td>• During this period, the VOCE was created, which allowed verifying the data contained in the customs declarations through a dedicated link with the pre-checked data entities authorized by SAT.</td>
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<tr>
<td>• In 2001, the SAAI M3 version was launched, based on international standards with full functionality via the Internet and which allows the transmission of information. The current SEA continues to be based on this platform.</td>
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<tr>
<td>• In 2012, the operation of the VUCEM began as a central point for requesting and obtaining permits and licenses from the different government agencies related to foreign trade.</td>
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<tr>
<td>• At least another dozen of systems have been developed and put into practice to complement the central systems of customs functions and foreign trade in Mexico, such as the electronic payment system, the entry and exit control system in controlled warehouses, the advance receipt of information for international carriers, the real-time tracking of containers, the e-value goods receipt, the automated risk analysis, activation of the automated selection inspection mechanism, the inventory control and value added tax credits system, the security in customs facilities systems, the automation in customs lanes system, among several others.</td>
<td></td>
</tr>
<tr>
<td>• In 2022, the PIS system been launched, which allows seaport users to interact with the port authority at a single point.</td>
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Source: interview with technical experts on Mexican customs systems.

Regarding other procedures associated with foreign trade but not directly related to the import, export and transit of goods, Mexico also has alternative mechanisms for paperless through the use of emails and simple e-platforms, which allow, even in an incipient way, carry out these procedures without paper with the expectation that in the future they will be integrated into systems such as the VUCEM. Some examples of these procedures are notices and requests for adjustments in registrations and authorizations previously granted, such as registering changes of address in the Export Programmes. Therefore, it can be concluded that Mexico is constantly evolving and committed to integrating most procedures associated with foreign trade through paperless mechanisms.

66 Consultation June 30, 2022, see: https://www.ventanillaunica.gob.mx/vucem/estadisticas.html.
In accordance with this trend, Mexico, through its National Port Authority, as of 2020, developed the PIS system.\textsuperscript{67} This allows each of the 17 internationals seaports to be interconnected with the main service providers of the respective port. The PIS system was implemented and entered operation during 2022 and its evolution is expected to continue gradually.

In terms of cross-border data exchange, starting in 2017, Mexico began the electronic exchange of International Phytosanitary Certificates with Chile, Colombia and Peru within the framework of the PA.\textsuperscript{68} Likewise, it exchanges this type of certificates with the United States (central server scheme (HUB) of electronic phytosanitary certificates (ePhyto) of the International Phytosanitary Protection Convention (IPPC).\textsuperscript{69} On the other hand, as of 2019, Mexico began the electronic exchange of Certificates of Origin through the Foreign Trade Single Windows of the PA member countries and has continued its extension to other countries through joint efforts with the support of the IDB to make a more robust version of the Interoperability IO Pack\textsuperscript{70} so that additional countries can join the exchanges.\textsuperscript{71} In June of this year, Mexico issued 100% electronic Certificates of Origin under the Mexico-Uruguay FTA. This country, a member of MERCOSUR, is still in the pilot phase, and the exchange is carried out through the Interoperability IO Pack.

Additionally, Mexico is undergoing tests for a new version of the exchange of Customs Declarations between the member countries of the PA, and has initiated a test environment for the exchange of AEO Certificates with the countries of the PA and Costa Rica. The technological developments that allow this data exchange are provided by the infrastructure of each VUCE of the countries involved. In short, progress in efforts for cross-border data exchange has been gradual and it is expected to continue expanding, adding more functionalities to the current exchange and involving new business partners.

A. Paperless trade system at the national level

1. Institutional and governance bodies for electronic data exchange in paperless environment

On January 11, 2011, the Ministerial Commission for the Mexican Foreign Trade Digital Window was created,\textsuperscript{72} which is made up of ANAM, SADER, SSA, SAT, SE, SEDENA, SEMARNAT, SENER, SEP, SFP and SHCP. The development and administration of the VUCEM belongs to SAT, which coordinates the federal agencies for the implementation and development of the VUCEM system at the national level. The VUCEM is the IT tool in which foreign trade agencies and users converge. The government agencies and bodies administer trade procedures through it, and are in charge of the legal recognition of electronic communications or documents under their regulation. Through the VUCEM users can: i) carry out procedures related to imports, exports and the transit of goods and their non-tariff regulations and restrictions.\textsuperscript{73}

\textsuperscript{67} PIS, see: https://puertointeligenteseguro.com.mx/#/inicio.

\textsuperscript{68} PA, see: https://alianzapacifico.net/.

\textsuperscript{69} To learn more about the IPPC phytosanitary electronic certificate central server scheme or HUB ePhyto IPPC, see the United Nations Food and Agriculture Organization website: https://www.ippc.int/in/ephyto/.

\textsuperscript{70} Computer development with a particular infrastructure that allows information to be received and directed to the appropriate recipient, according to the system of the country receiving the information. To learn more about the IDB’s VUCE network interoperability initiative, see the IDB’s Inter-American Network of Foreign Trade Single Windows website: https://redvuce.org/.


\textsuperscript{72} To learn more about the IDB’s RedVUCE initiative, see the IDB’s Inter-American Network of Foreign Trade Single Windows website: https://redvuce.org/.

\textsuperscript{73} In the case of Mexico, the charges referred to in the legal instrument creating the VUCEM have the nature different from taxes, duties or fees, in accordance with the provisions of article 3 of the CFF.
On January 22, 2021, by Agreement of the SE\textsuperscript{74} the NTFC was created. Its purpose is to facilitate coordination between the different agencies and organisms of the Federal Government for the design, execution and evaluation of programmes and activities related to trade facilitation, as well as for the implementation and application of the provisions of the WTO TFA with based on applicable national and international regulations, within the scope of their respective functions. The functions of the NTFC, among others, are to assist with the SE and the SRE in accordance with the competence of its members in the designing of policies, programmes and activities aimed to the simplification and automation of foreign trade procedures, as well as coordinate its execution, with an approach that favors its articulation and complementarity.

The following government agencies and organizations participate in the NTFC: SE, SRE, SEDENA, SEMAR, SHCP, SEMARNAT, SENER, SADER, SICT, and SSA. The following government agencies and organizations also participate in the NTFC with voice, but without vote: Banxico, SAT, ANAM, CONAMER and COFECE. The NTFC is chaired by the Head of the SE who may be replaced by the Undersecretary of Foreign Trade. The NTFC is in charge of issuing recommendations to each relevant government agency and organization, so that the policies, programmes, and activities of the relevant agencies and organizations be oriented in a coordinated and joint manner to adopt and implement trade facilitation measures.

The private sector is allowed to participate in the NTFC only by prior invitation to the corresponding session, represented through Business Chambers and Confederations designated by the NTFC, which include at least the following: the CCE; CONCANACO SERVYTUR; COMCE; CONCAMIN; CNA; CAAAREM and CLAA, who may participate in the sessions of the NTFC with voice, but without vote. Likewise, depending on each session, the NTFC may invite representatives of other federal agencies and organizations, local authorities, autonomous constitutional bodies, academic institutions, civil society organizations and renowned experts to participate with voice but without vote.

2. Level of automation

Mexico has three main systems that support cross-border paperless trade: the SEA, the VUCEM and the PIS.\textsuperscript{75} The SEA finds its legal foundation in LA\textsuperscript{76}, which expressly recognizes that customs declarations must be transmitted through the SEA. This system is defined by national legislation as: “the different processes that are carried out electronically through the Mexican foreign trade digital window, the customs electronic system and the other electronic systems that the Customs Authority determines to use to exercise its faculties.” Given the above, customs declarations are processed through the SEA, where the digital information and documentation is integrated, validating the data online and speeding up registration times. The SEA allows the reception, processing, validation of information and response necessary for the customs clearance of the goods.

The SEA is not just related to the processing of customs declarations, but also to the receipt of advance information prior to arrival, the transmission of information and documents annexed to the customs declaration, the traceability of the different steps of the import, export and transit procedures in real time, as well as procedures, notices, reports and requests required for users to operate in customs, such as registration in the register of importers, notices of hiring customs brokers, registering bank account numbers to be able to carry out electronic payment of customs duties and taxes, obtaining authorizations to store goods or to import through ports different than customs offices, among other procedures, notices, registrations and authorizations that are required as part of

\textsuperscript{74} To consult the SE Agreement, see: The Agreement by which the National Committee for Trade Facilitation is created on a permanent basis, published in the DOF on January 22, 2021 and its subsequent modifications, https://www.gob.mx/cms/uploads/attachment/file/62777/2021_01_22_SE_Acuerdo_por_el_que_se_crea__con_car__cter_permance_el_Comit__Nacional_de_Facilitaci_n_del_Come rcio.pdf and its subsequent modification see: https://www.dof.gob.mx/nota_detalle.php?codigo=5630350&fecha=22.01&fecha_tab=0.

\textsuperscript{75} There is an additional cluster of systems that support foreign trade activity, non-exhaustive examples of which can be found in annex 3.

\textsuperscript{76} Article 6 of the LA.
the customs formalities and of the service providers associated with the activities of import, export and transit of goods. The development and integration of functionalities in the SEA is permanent, and the circumstances derived from the COVID-19 pandemic have promoted the integration of procedures in an electronic environment, such as customs requests and notices.

The SEA also allows the authorities to obtain relevant information for risk analysis management of customs operations, so that the determinations on the need or not to carry out the inspection of goods, just by documents (ocular) or, where appropriate, in an intrusive way, can be carried out through the use of ICT.

The SEA admits the transmission of the customs declaration for its processing, covering practically all kinds of foreign trade operations. Importers, exporters and their representatives, such as customs brokers, are connected to the SEA through data pre-validation companies. Some service providers such as national and international carriers, as well as port terminals and warehouses, can also connect to the SEA to carry out procedures and notifications related to the cross-border trade of goods. To access the SEA, just the authorized users or its representative must identify themselves using its e-signature.

In many cases, the SEA is interconnected with the VUCEM, especially when dealing with procedures and requests prior to the clearance of goods and for obtaining import and export permits and licenses. In general, regulatory and border control agencies are connected to the SEA by the VUCEM.

Through the SEA, Mexico permanently seeks to improve with ICT the customs management. A clear example is the PITA, which seeks through the use of technology to reduce human interference in customs procedures carried out within customs (declaration reading systems, surveillance cameras, automated locks, etc.). Another example is the SOIA, through which both official users within tax and customs agencies and external users (importers, exporters, customs brokers, warehouses, carriers, and other service providers, as well as other government agencies) can carry out consultations of foreign trade operations, even in real time.

The second major system that supports cross-border paperless trade is the VUCEM. This has been in operation since June 2012 and was gradually implemented, including procedures from different agencies in 3 phases. It currently integrates the procedures related to the control agencies, permits and licenses of the different agencies. The VUCEM is interconnected with the SEA adding additional functionalities, procedures, authorizations and notices related to customs operations. It currently also interoperates with other trade partner platforms, such as for the electronic exchange of some preferential certificates of origin.

Like the SEA, the VUCEM is constantly evolving and simplifying to integrate more functionalities and procedures related to commercial activity. Currently, around 600 different procedures can be carried out through the VUCEM, related to 10 government agencies and 2 private regulatory bodies. Communication between the agencies is carried out through a dedicated private network. Communication with external users is carried out through a wide multi-platform Internet-based network, that is, web services such as MAC, iOS, Android, Chrome, Firefox, with which it is also possible to send mass information and automatic interaction between user systems and the VUCEM without human intervention in each operation.

The VUCEM is also friendly to computer trends and, by having a multiplatform base, allows access via desktop computers, as well as through mobile devices, tablets and smartphones as it does not depend on browser versions or configurations, machines or operating systems. Its use and navigation are designed in an intuitive way and oriented to the importer/exporter user.

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77 Article 16-A of the LA.
78 To learn more about the VUCEM, see the VUCEM website: https://www.ventanillaunica.gob.mx/vucem/index.html.
To access the VUCEM the user must have an e-signature and sign in. The VUCEM allows the admission of requests for procedures, the analysis of the request and its response electronically, without the need to submit paper documents for the follow-up of requests, for which the user can transmit the documents required in format PDF to support its request and meet additional information requirements. The procedures and documents have their own digital seals, prepared and/or digitally signed. This information is shared with the SEA for different process validations.

The third main support system for cross-border paperless trade is related to the electronic ports. Although there are previous examples of their implementation in Mexico, there has recently been a coordinated effort at the national level to implement an electronic system in all the country's international ports. This system is called PIS and it is a comprehensive technological platform developed by SEMAR to strengthen the security of the National Port System.79

The PIS stands as a Single Window for each ASIPONA80 through the digitization and systematization of operational and administrative processes, for better coordination in security, logistics and collection in each international port, boosting its productivity. Through the PIS it is feasible to carry out all the procedures and processes required by port regulations. It is a multi-platform, scalable and secure information system, with a 24-hour managed service, adaptable and modular.

The PIS has 27 modules81 and is designed based on four main pillars: security, collection, coordination and interaction with various authorities, and communication with the port community, including payment processing, with standards that guarantee the availability of information, reliability and cybersecurity.

In terms of security, the system allows for automated control of movements within the seaport, through maritime and land control circuits and permanent video surveillance. It also allows the generation of biometric records, vision computing and artificial intelligence for port access control and traceability mechanisms for people, vehicles, cargo, materials and tools that enter and leave the port, crosschecking information with national and local authorities databases.

The PIS system allows communication with port users such as terminals, carriers, warehouses, assignees, unions, shipping lines, their representatives and customs brokers, who, depending on their activity, require carrying out different procedures, whether it is the request for port services, related services, leases, loading and unloading activities, goods handling, storage, custody and supplies. In support of the procedures, the PIS interacts with the systems of other authorities such as the Port Authority, ANAM, SAT, IMSS, SICT, RENAPO and AMIS. Due from the different procedures, authorizations and activities carried out inside the port, the payment of fees and services can be done, with payment processing tools enabled 365 days a year.

3. Information and communication technology (ICT) infrastructure (connectivity, sustainability and recovery)

The SEA and the VUCEM have their own infrastructure, which allows them to establish point-to-point connections with other agencies and organizations through dedicated private networks, and to have a high level of service and availability at all points of import and export of goods.

As it is an exclusive use network, the communication channel is secure and requires authentication through the e-signature. The connections use security certificates to allow the exchange of information including encryption.

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79 For more information, see https://puertointeligenteseguro.com.mx/#/inicio.
80 In Mexico there are currently 17 ASIPONA, one for each International Port.
81 It had 27 Modules at time of interviewing the authority in April 2022, but it is foreseeable that modules will continue to be added as the PIS extends its coverage to more procedures and functionalities.
Some authorized users can connect directly to those private networks through dedicated links. These users are, for example, the data pre-validation companies and registered warehouses (under customs control), but also representatives of international carriers. Importers, exporters and its customs brokers, then connect with data pre-validation companies through the Internet with secure access.

Both systems have contingency protocols and disaster recovery plans implemented based on a national policy in accordance with the MAAGTICSI.82

4. Security

Systems such as the SEA and the VUCEM are supported by high security standards that are applicable to the use of technological platforms of any national government agency, and must comply with the Agreement by which they issue the policies and provisions to promote the use and exploitation information technology, digital government, Information and Communication Technologies, and Information Security in the Federal Public Administration (DOF 09/06/2021),83 in order to guarantee the continuity of the operation and the permanence and integrity of government information.

To carry out procedures, access to the system requires authentication using the e.signature, with the use of SSL certificates, public key certificates, passwords and smart cards, thus providing transparency, traceability and security.

5. Business process re-engineering

As the SEA and the VUCEM are centralized platforms, that is, under the administration of a single agency, the development of the systems falls on the technical specifications requested by the administering agency, whether the development of the system is done directly or through bidding with specialized service providers. Therefore, every time it is required to include a process in the system, a re-engineering of the process is carried out, through the analysis, automation, installation and execution of any request related to foreign trade operations, with the purpose that once included in the system, it allows the creation and transmission of information and electronic and digital documents. Once implemented, the process is also managed, that is, to permanently and periodically implement the analysis, definition, execution, proofing, monitoring and process improvement.

6. Data harmonization and standardization

The VUCEM was designed under the different recommendations for the development of single windows, international standards, specifically: WCO Data Model v.3.0, UN/EDIFACT, UN/CEFACT and international best practices. Therefore, the information is harmonized and in each new implementation compliance with each of the standards in its updated version is ensured. In the development of the VUCEM, it has been stated that having a system aligned with international standards, in addition to allowing the structuring of metadata, makes it possible to increase the effectiveness and efficiency in the transmission of integration messages between the single windows, and standardizes the generation of XML data schemes that allow their conversion to other standards. This facilitates collaboration between government agencies and organizations and the creation of legible and interpretable documents in different languages. Data duplication by using different formats is also reduced, process migration and upgrade effort is minimized, and real-time data exchange and seamless data flow is facilitated.

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82 Manual that can be consulted on the website of the National Intelligence Center of the Government of Mexico at: https://www.gob.mx/cni/documentos/manual-administrativo-de-aplicacion-general-en-materia-de-tecnologias-de-la-informacion During the interviews, the authority mentioned that this type of manuals is periodically updated.

83 Available at: https://dof.gob.mx/nota_detalle.php?codigo=5628885&fecha=06/09/2021#gsc.tab=0.
7. Capacity-building

The SE, through the NTFC, coordinates the activities with the different agencies and organisms of the federal government and the private sector. It also chairs the Ministerial Commission for the Mexican Foreign Trade Digital Window and is in charge of the SNICE foreign trade information web portal. The SAT is in charge of the VUCEM web portal and VUCEM development and infrastructure. Both web portals contain informative and up-to-date material on the different procedures that can be carried out at the VUCEM, as well as current news on new procedures, including interoperability processes with other trade partners.

On the VUCEM web portal there are manuals, handbooks, technical files and e-learning tutorials for awareness and understanding of its use, for officials from the different government agencies and these in turn, and according to the scope of their competence, sensitize private stakeholders. On the VUCEM web portal you will find useful information on each procedure, user manuals, as well as e-learning tutorials.

During the interviews performed for this study, a common concern of the private sector has been the lack of permanent programmes to sensitize the community to achieve a common understanding, but also not available in advance prior to the implementation of new procedures or processes in the VUCEM.

8. Other matters

In Mexico, a high percentage of import and export operations is done using Customs Brokers who, according to national legislation, are legal representatives of importers and exporters to carry out customs clearance. This has allowed, in one hand, that the great technological changes are better assimilated by falling on a small sector of service providers, helping their prompt adoption and execution. But, on the other hand, from the interviews carried out it was noted that in general, when importing and exporting users choose to use the services of customs brokers, their incentive to participate directly in understanding and adapting the systems has diminished. In this sense, according to the interviews, it is noted that users have a high capacity to assimilate and be able to respond to adjustments in procedures through service providers such as customs brokers and data pre-validation companies; however this could also give the perception that due to market or by decision of each user, having slowed down the reaction capacity in certain large, small and medium-sized companies of detailed knowledge of the systems on import, export and transit of goods.

B. Current national status towards cross-border data exchange

1. Electronic systems

Mexico has developed its systems considering international standards such as the OMA data model, the EDIFACT standard or the X12 in XML formats, with the main objective of using uniform data schemes that facilitate their conversion to other standards and thereby increase the effectiveness and efficiency in the flow of integration messages between single windows with other trade partners.

Mexico plays an active role in several initiatives aimed at cross-border data exchange and single window interoperability with other trading partners. An example of this has been the RedVUCE initiative sponsored by the IDB for the use of international standards for the exchange of information by electronic means, the standardization of requirements and the issuance of certificates of origin, phytosanitary and zoosanitary for their interoperability between VUCE of the member countries of Latin America and the Caribbean. In addition, Mexico actively participates in the collaboration between the VUCEs of the PA (Chile, Colombia, Peru and Mexico) for the exchange of certain types of information such as certificates of origin electronically.

84 Consult the SNICE web portal at: https://www.snice.gob.mx/.
85 Consult the VUCEM web portal at: https://www.ventanillaunica.gob.mx/.
86 Article 41 and 54 of the LA.
2. Single window system

During the interviews, the SE has provided relevant information on the current interoperability of the systems that Mexico has, as well as on some other projects underway. This information can be summarized as follows:

- As of June 2017, the electronic exchange of international phytosanitary certificates began within the framework of the PA.
- In May 2021, the electronic exchange of international phytosanitary certificates with the United States began under the HUB ePhyto IPPC scheme.
- As of March 2019, and steadily, Mexico has been expanding the electronic exchange of Certificates of Origin with the Single Windows of the PA countries, gradually being able to issue and receive certificates of origin electronically with Peru, Chile and Colombia. Work continues to make XML file exchange fully possible.
- As of June 2022, the issuance of digital certificates of origin and in XML format with Uruguay is feasible.
- Mexico, as a member country of the PA, has been expanding the electronic exchange of Certificates of Origin with the Single Windows of the member countries of the PA, in such a way that to date it electronically issues 100% of the certificates, and electronically receives those issued by Chile, Colombia and Peru.
- Regarding the customs declaration, the SE reported that in March 2022 they began testing a new version of the Customs Declaration exchange with the PA countries.

As a whole, the benefits that have been obtained are: the elimination of the use of paper in the issuance of certificates of origin (at least 30,000 sheets per country annually), the agile and secure exchange of documentation between entities, the receipt of information in real time (advance information) so that the importing country can carry out risk analysis of operations, complete traceability of the documents issued, reliability for the parties regarding the information contained in each certificate of origin, as well as improving the control at customs and the exchange of information between companies and the government.

3. Business process re-engineering

The VUCEM is one of the main systems that Mexico has to carry out the cross-border exchange of data, to the extent that the development of single windows at a global level seeks similar objectives and they have certain coincidences regarding procedures that are uniform between the different trade partners. In Mexico, when developing the VUCEM (including the VUCEM 2.0), the possibility of interoperating between single windows with other trade partners was taken into consideration, based on considering international standards, but also with process re-engineering that consider data models that facilitate interaction with other systems. Therefore, in each process that has been implemented in the VUCEM, a detailed survey, analysis, design and diagramming of foreign trade processes has had to be implemented, aimed at the simplification and efficiency of the process and its eventual possibility of being part of the interoperability between single windows.
4. Data harmonization and standardization

The VUCEM was designed under the different recommendations for the development of single windows, international standards, specifically: WCO Data Model v.3.0, UN/EDIFACT, UN/CEFACT and best international practices, so the information is harmonized and in each new implementation, compliance with each of the standards is ensured, in its updated version. Now, since interoperability with other countries is done through VUCEM, the information received from the SEA is transformed to comply with said standards.

The fact that the VUCEM has been developed considering international standards, allows the structuring of metadata, but also increases the effectiveness and efficiency in the transmission of integration messages between single windows, and standardizes the generation of XML data schemes that facilitates its conversion to other standards and thus facilitates dialogue with other trade partner systems.

5. International transit

Mexico allows electronic customs declarations to carry out the national and international transit of goods through the SEA, so they can be accomplished without paper. Additionally, despite the fact that the CL requires the presentation of a guarantee in the case of transits, in accordance with its national legislation, Mexico has exempted the obligation to present guarantees during transit in its country through a Presidential Decree of Administrative Facilities published in the DOF on 03/31/2008.87 Additionally, Mexico is a signatory to the Customs Convention on ATA Carnets, for the Temporary Admission of Merchandise and its Annex, made in Brussels on December 6, 1961 and published in the DOF on 04/05/2001.88 This agreement allows, through a single document, to facilitate international transit and temporary stay in the territories of the signatory countries. The existence of bilateral international treaties or agreements that address reciprocal procedures in the international transit of goods is an issue that has not crystallized yet in the country.

The country's customs have a comprehensive system and at the moment the SADER uses the VUCEM to carry out its inspection tasks, which is a requirement for export the goods. The result of the inspection is part of the electronic information that is sent to the destination country.

In accordance with the USMCA, the Parties committed to article 7.21 "Border Inspections"89 to encourage the development and application of standardized operating procedures between their customs administrations and the pertinent agencies that inspect goods, means of transport or instruments of international traffic. Parties are encouraged to adapt their border facilities to conduct inspections and to coordinate to develop procedures or facilities adjacent to ports of entry for the efficient movement of goods whose processing requires specific adaptations with respect to facilities or inspection.

An example of joint cooperation with foreign authorities is the inspection programme called Unified Cargo Processing with CBP-USA, which consists of both authorities inspecting export cargo from Mexico to the United States of America at a single point, allowing the cargo to be exported in a FAST lane and thus avoiding inspections by each Party at different points.

6. Awareness programme

Both the VUCEM and SNICE web portals provide access to up-to-date information on procedures, including those related to interoperability with other single windows. Likewise, through the institutional channels of communication and spokesperson, the different government agencies publicize the new procedures related to the single window.

87 Presidential Decree available at: https://dof.gob.mx/nota_detalle.php?codigo=5032270&fecha=31/03/2008#gsc.tab=0.
88 Available at: https://dof.gob.mx/nota_detalle.php?codigo=767813&fecha=05/04/2001#gsc.tab=0.
7. Other matters

Mexico has several programmes that assess the level of compliance of trade operators. The most relevant is the AEO, based on the SAFE framework of the WCO. Importers and exporters, warehousemen, carriers, customs brokers, industrial parks, bonded warehouses and strategic bonded warehouses can access the general certification scheme. Likewise, importers and exporters can access the scheme under various modalities, depending on whether they act as producers in certain productive sectors, or only carry out product trading activities, or even have automated inventory control that allows the authority to consult it in real time.

On the other hand, within the framework of the AEO Certification and the SAFE Framework, Mexico has signed an MRA with Korea in March 2014, the United States in October 2014, Canada in May 2016, Costa Rica in April 2018, PA (Chile, Colombia, Mexico and Peru) in July 2018, Israel in April 2019, Hong Kong (Special Administrative Region of China) in December 2020 and Brazil in May 2021, thus consolidating the AEO Programme in the country and providing a solid base of recognition to encourage more companies to access the programme. The interaction between trade partners through AEO companies facilitates dialogue and fosters an approach between authorities that may eventually lead to the cross-border exchange of more data and not only those related to the AEO Programme.
IV. General conclusions

Mexico has a robust tradition in the use of electronic systems to drive customs and foreign trade operations, being at the vanguard of the region in various aspects related to cross-border paperless trade. Moreover, it has a legal system that comprehensively recognizes and promotes the exchange of goods and services through ICTs.

This report shows the main findings related to the technical and legal readiness of the country for cross-border paperless trade, as well as a series of recommendations with the purpose of continuing promoting measures that recognize and drive cross-border paperless trade and cross-border exchange of data. These recommendations are presented in chapter V.

Likewise, Mexico has several systems allowing the transmission of information and documentation to process cross-border transactions of goods, such as the SEA, and allowing to conduct processes electronically in advance and without using of paper, related to the majority of border control agencies, through the VUCEM. Both systems interact with each other, ensuring connectivity, with secure access, sustainability, recovery, reliability and adaptability, compliance with international standards and allowing the exchange of data with other cross-border agencies and trade partners. The country keeps venturing into the development of systems and mechanisms that facilitate the management of customs and other border control agencies, as well as facilitating the processes of import, export, and transit, by enabling to carry out procedures, authorizations, notices, registers and other types of controls using ICT, that in addition to simplifying processes for users, ensure a proper traceability, and enable the risks and safety analysis on cross-border trade.

Regarding technical aspects, areas of opportunity have been identified in the institutional framework that would allow a greater approach and participation of the private sector in the objectives of the NTFC, as well as the dissemination of knowledge and awareness among customs users, related to the implementation of measures and new functions of the SEA and VUCEM. Finally, by having highly developed, tested and functional systems, Mexico is in an excellent position to continue accomplishing cross-border data exchange successes with more trade partners.
Regarding legal aspects, Mexican law fully recognizes electronic transactions, adopting the principles of technological neutrality, autonomy of will, international compatibility and functional equivalence of data messages and electronic signatures. Mexico also has a strong legislation on privacy and personal data protection. In addition, the legal framework of national e-commerce is supported by the commitments adopted by the country within various free trade agreements, among which the CPTPP and the USMCA stand out. Nevertheless, there are areas of opportunity related to the recognition of electronic endorsements of credit titles, the popularization of trust services for the digitalization of documents and advanced electronic signatures, as well as the creation of rules and guidelines for the recognition of the validity of foreign data messages, electronic signatures and certificates of service.

On the other hand, Mexican law establishes a vanguard cross-border paperless trade system that allows clearing goods from customs by presenting import and export declarations in electronic format through the SEA, and processing import permits, certificates of origin and declarations of value electronically through the VUCEM. Only a few procedures are pending to be included in the VUCEM, such as certain export permits and phytosanitary certificates. This is the way in which Mexico complies the commitments it assumed under the TFA Framework in paperless trade matters.

Despite the above, there are certain aspects of cross-border paperless trade that are not specifically regulated, and so should be addressed in accordance with general rules of civil, administrative or criminal law, that may not be entirely clear for purposes of electronic transactions or processes, therefore creating legal uncertainty. Among those aspects are the quality, ownership and confidentiality of information transmitted in the paperless trade system. The same applies to the civil, administrative and criminal liability of the authorities that operate in the paperless trade system and the individuals that provide services to the users of the system under government concessions or authorizations. Besides, the users of the system don’t have easy access to the terms of the service-level agreements and memorandums that rule the conduct of authorities and the private sector in paperless trade system.
V. Recommendations

A. Recommendations derived from the legal readiness assessment

1. Electronic transactions and signatures law

Recommendation 1: to reform the LGTOC to expressly allow the electronic endorsement of credit titles, and regulate it to increase its reliability, without violating the principles of technological neutrality and autonomy of the will of the parties.

Recommendation 2: to reform the CC to expressly provide a legal presumption of the integrity of data messages and digitalized documents covered by a data preservation certificate issued by an accredited certification service provider, and to establish rules for electronic evidence appraisal in which such certificates deserve more probatory value than other data messages and digitalized documents.

Recommendation 3: to encourage the ratification of Convention 108+, in order to implement changes in national legislation to include genetic and biometric data as a special category of personal data, creating the obligation of notifying the authorities of data violations that may seriously interfere with the fundamental rights of data owners, minimizing the data required to conduct processes and increasing the transparency of processed data.

Recommendation 4: to set rules and guidelines on the recognition of foreign data messages, electronic signatures and certificates of trust services, in order to increase the legal certainty of their validity in the country.

Recommendation 5: to analyze the possibility of adhering to the United Nations Convention on the Use of Electronic Communications in International Contracts.
2. Laws regarding paperless trade systems

Recommendation 6: enhancing paperless trade by incorporating to the VUCEM those permits and other foreign trade procedures that still need to be processed on paper, such as certain phytosanitary certificates and export permits.

Recommendation 7: to publish service-level agreements between the SAT and the service providers rendering electronic data processing services within the scope of the SEA, so that the users of the paperless trade system may have certainty of the standards of such services.

Recommendation 8: to draft and publish memorandums of understanding or cooperation between the SAT, the ANAM and the rest of the authorities that participate and exchange information in the VUCEM, so the users of the paperless trade system have certainty about the information management guidelines to be followed by the authorities.

3. Cross-border aspects

Recommendation 9: to promote agreements between the Mexican government and all its trade partners to implement the use of electronic certificates of origin under all the free trade agreements entered by the country.

4. Other considerations

Recommendation 10: to create special administrative regulations specifically protecting the ownership and confidentiality of information exchanged through the paperless trade system, providing administrative sanctions in case such information is misappropriated or improperly disclosed.

Recommendation 11: to promote Mexico's ratification of the Budapest Convention and to reform the national criminal law, to criminalize the unlawful interception, copy, appropriation or disclosure of information transmitted through the paperless trade system.

Recommendation 12: to create specific regulations defining the scope of the liability that the SAT, the authorities that operate the VUCEM, the authorized providers of electronic data processing and pre-validation services, and the VUCEM concessionaire, should have before the importers and exporters who use the paperless trade system.

Recommendation 13: to create and publish rules and guidelines that regulate contingencies deriving from operational failures of the SEA and the VUCEM, and limit the administrative, customs and tax liability of the users of the system impeded from processing operations due to these failures.

Recommendation 14: to establish minimum cybersecurity guidelines for certain foreign trade operators, such as customs brokers, freight forwarders, and AEO-certified companies.

Recommendation 15: to promote the ratification of the UNCITRAL Model Law on International Commercial Mediation and International Settlement Agreements Resulting from Mediation.

B. Recommendations derived from the technical readiness assessment

1. National level paperless trade system

(a) Institutional and governance bodies for electronic data exchange in a paperless environment

Recommendation 1. Ensure that the governance structure for promoting measures related to cross-border paperless trade, such as the NTFC, has an Agenda that not only emerges from the interaction of the members of the NTFC but also derives from guidelines and specific public policy objectives instructed by the national senior management, in such a way as to facilitate coordination and decision-making
between the different agencies involved in the NTFC, who generally have their own budget and technical independence to carry out their functions in accordance with the powers that have been granted to them by law. In such a way that under independent governmental instances and of the same hierarchical level, the existence of guidelines and objectives provided by senior management facilitate leadership and decision-making that impact the sphere of the various agencies involved.

Recommendation 2. The interviews reveal a lack of awareness of customs users of a clear agenda for the NTFC, so it is recommended that the National Agenda for Trade Facilitation, which includes, among other things, the adoption and implementation of procedures that promote cross-border paperless trade, consider clear and prosecutable aspects that involve not only the participation of the authorities but ensure the capability and participation of the private sector, also enhancing the commitment of private sector, on its own field, to support the implementation of the public policy measures adopted.

Recommendation 3. Widespread dissemination of the National Agenda for Trade Facilitation so as to accurately identify the objectives to be achieved, as well as general measures and courses of action for its adoption and implementation, so that the private sector can also warn of areas of opportunity to promote this Agenda and anticipate internal or coordination measures between the different stakeholders of the trade supply chain that allow an easier and better adoption of the regulatory changes to come.

Recommendation 4. Promote the active and regular participation of the private sector in the NTFC that includes stakeholders with interference in the entire cross-border trade chain, such as importers, exporters, customs brokers, warehouses, carriers, other service providers, payment processing companies, etc., as well as specialists according to each relevant topic of the National Trade Facilitation Agenda.

Recommendation 5. Publicize the operating regulations and designation of the participation of the private sector in the NTFC, in such a way that the participation of the private sector would be encouraged with a plural and inclusive vision, thus promoting greater participation of the private sector and that the analysis for the adoption of measures has information from broader perspectives.

Recommendation 6. Publicize the operating regulations of the NTFC to achieve its objectives and the National Agenda for Trade Facilitation, such as, based on the Agenda, clearly indicate the frequency of meetings, subdivision of topics and working groups, even consider that some of them be coordinated or promoted by the private sector, regardless of whether decision-making falls exclusively to government agencies in accordance with the statutes of the NTFC.

Recommendation 7. Consider improving the community communication strategies with regard functions, objectives and results of the NTFC, in order to add more interested parties from private sector, as well as detect trends in possible public policy measures to be implemented. Even convey a public-private coordination approach.

Recommendation 8. Permanently evaluate the different sources of financing for the fulfillment of the objectives of the National Trade Facilitation Agenda and its adopted measures implementation. One of the advantages of having specific and precise financing source is to encourage the functions of the NTFC to be focused just on facilitation objectives, allowing to save time on the decision taking and performance of actions.

(b) Automation level

Recommendation 9. Continue with the expansion of procedures, modules and functionalities in the different electronic systems that affect cross-border trade operations such as the SEA, the VUCEM, the systems that allow the electronic issuance of certificates of origin, peripheral systems for the risk analysis, non-intrusive cargo reviews, communication systems of various service providers related to cross-border trade (warehouses, carriers, customs brokers, etc.).
Recommendation 10. Continue to ensure that the different systems are permanently updated, continually improving their functionality, but also calibrating the risk analysis according to business trends.

Recommendation 11. Encourage the different systems to converge on a single platform or a set of platforms that facilitate their use by users, in terms of reducing access points and dispersion of interaction modalities with multiple information sending points, in such a way as to facilitate the daily interaction of users with the systems.

Recommendation 12. Promote more forums for consultation and exchange of ideas and concerns between the public and private sectors, in order to provide predictability in the actions of the different customs users.

Recommendation 13. Carry out permanent actions of continuous improvement that allow the extraction of information from customs systems so that customs users can fully and efficiently integrate their electronic customs file with direct information from the authority's systems, as a means to drive the adoption of paperless records.

Recommendation 14. Ensure that the procedures that are implemented through the transmission of information (paperless) continue the following stages of the procedure without the use of paper. In other words, to ensure that once the information is transmitted in the authority's systems, it can be used by the different authorities according to their procedures without the need to require the presentation of that information on paper or require paper proof that said transmission has been performed.

Recommendation 15. Continue with the modernization of regulations and obligations with third countries, regarding the issuance of certificates of origin so that they can be issued electronically or without the use of paper.

Recommendation 16. Continue with the development of efficient communication interfaces between the various systems used by the authorities in order to prevent users from carrying out more than one authentication and connection process to execute procedures or fulfill their obligations.

Recommendation 17. Continue efforts to implement the PIS system.

(c) Information and communication technology (ICT) infrastructure (connectivity, sustainability and recovery)

Recommendation 18. Even when the authority has procedures to deal with contingencies, failures or intermittence in the systems, it is recommended to implement permanent activities of continuous improvement in said procedures or protocols, to reduce the negative effects that are generated in the commercial flow according to each type of contingency.

Recommendation 19. Continue to ensure that the authorities permanently have staff or access to services with the proper skills, for continuous updating and maintenance of the systems.

Recommendation 20. Ensure or even provide budget allocations or financing means that allow the adoption and implementation of continuous improvement actions in the various systems, according to the different government agencies that participate in the paperless trade environment.

(d) Security

Recommendation 21. Ensure that the guidelines on the security of communications and information managed in the systems, in addition to being complied with by the different government agencies in charge, as well as by customs users, allow for future technology requirements and improvements of the devices used.
(e) Trade process re-engineering

Recommendation 22. Continue with the process re-engineering of procedures, notices, authorizations, controls, etc., which are not yet available through systems such as the SEA, VUCEM and PIS, so that even when they are currently implemented without paper through alternative communication mechanisms such as web services and emails, can be integrated if possible, through the main mechanisms and points of connection between users and authorities.

Recommendation 23. Continue with a continuous improvement of process re-engineering that ensures that for each procedure the process is carried out efficiently in accordance with the different capacities and infrastructure of the various government agencies, with the aim that the process from start to finish is implemented without using paper, including the deliberation processes within the agencies, for the resolution of the procedures, when possible.

(f) Data harmonization and standardization

Recommendation 24. Continue with the use of international standards for the harmonization of data in the implementation, adjustments and subsequent revisions of the systems used between the different government agencies, in order to continue facilitating the exchange of electronic data that is implemented nationally and with other trade partners.

(g) Capacity-building

Recommendation 25. Continue with the awareness and understanding programmes on the use of the systems and new functions, modules, improvements or added procedures, in order to improve the common understanding of the systems. During the interviews, a constant concern of the private sector has been that it is desirable and relevant to have on point information sufficiently in advance of the implementation of new procedures or processes in the VUCEM.

Recommendation 26. Ensure that the permanent training of the personnel of the different government agencies in charge of the operation continues or in any way participate in the application of the various systems indicated in this report that promote cross-border paperless trade and the systems adjacent to them, in order to promote their efficient application and promote an environment of continuous improvement.

Recommendation 27. Generate a regular forum for dialogue with the different stakeholders from both the public and private sectors, aimed at increasing capacity-building in the sense of spreading knowledge and the benefits of having systems that support cross-border paperless trade, but it can also serve as a forum for discussion and analysis on the possible implementation of measures that turn out to be best practices in other countries and regions, which also raise awareness of the different needs for coordination to promote systems such as electronic ports, not only in maritime traffic, but also in land, air and rail traffic, depending on how it promotes the efficiency of the different stakeholders and users of these ports, also in accordance with the country's public policy objectives.

(h) Other matters

Recommendation 28. Continue promoting mechanisms that make the general system of cross-border paperless trade more robust, such as the recognition and promotion of the digitalization of trade processes, that is, not only that the documents necessary to carry out international transactions and its submission to the authorities and requests for compliance with the different formalities for import, export and transit is done through the non-use of paper, but it is also encouraged that the elements of these documents can be generated digitally, with digital signatures and be transmitted freely between the different stakeholders of the point-to-point cross-border trade and logistics chain, and these elements are also recognized as valid for the interaction with the systems of the different regulatory agencies, including the SEA, VUCEM and PIS.
2. Current national status towards cross-border data exchange

(a) Electronic systems

Recommendation 29. Continue promoting forums for dialogue and progress in the interoperability of systems with other trade partners, both bilaterally and regionally, under which benefits are realized for both the regulatory agencies of the different countries, as well as for commercial operators, efficiency and competitiveness of trade between regions.

(b) Single window system

Recommendation 30. Continue with the effort to integrate all the procedures of the main actors of the public sector that participate in the customs clearance process, as an element that would facilitate to interoperate with systems of other trade partners through a single point of connectivity, in an integrated way.

(c) Business process re-engineering

Recommendation 31. Continue with the re-engineering of business processes for national purposes with an approach that facilitates the eventual implementation of interoperability of systems with other trade partners, for which it is relevant to consider the best international practices and the experiences already obtained in the country during the negotiations and work for cross-border data exchanges that are currently being carried out.

(d) Data harmonization and standardization

Recommendation 32. Continue with the use of international standards for the harmonization of data in the implementation, adjustments and subsequent revisions of the systems used between the different government agencies, in order to continue facilitating the exchange of electronic data that is carried out not only nationally, but also to facilitate interoperability with other trade partners.

(e) International transit

Recommendation 33. Explore the feasibility and convenience of implementing mechanisms related to international transit, at least with the trade partner countries of the same region, in order to facilitate the movement of goods in the region, simplifying the administrative burden on trade operators, not only in terms of compliance with formalities within the country, but from a regional transit and transshipment perspective.

Recommendation 34. Continue expanding the existing coordination between the different government agencies in the country, as well as with government agencies of third countries, to simplify and speed up the simultaneous or joint inspection of the cargo, for the due accreditation of compliance with the formalities of import, export and transit at common borders whether or not they are adjacent.

(f) Awareness programme

Recommendation 35. Continue with the awareness and understanding programmes on the use of the systems and new functions, modules, improvements or procedures added, in order to improve the common understanding of the systems, especially in the functionalities focused on the cross-border exchange of data. During the interviews, a constant concern of the private sector has been the need and relevance of having on point information sufficiently in advance of the implementation of new procedures or processes in the VUCEM.

(g) Other matters

Recommendation 36. Continue efforts to consolidate the participation of companies in the AEO Programme as a pillar of supply chain security and trade facilitation. During the interviews, it was constant to observe suggestions that translate into areas of opportunity, such as: i) review the
requirements for the renewal of AEO authorizations with a view to simplifying them, ii) extend the validity and renewal cycles of the authorizations, as measures to reduce the administrative burden of the companies that are currently part of the programme and have an adequate history of compliance, iii) publicize more information about the benefits or advantages of the existence of the MRAs that Mexico is part.

Recommendation 37. Continue with the expansion of AEO programmes both at the national level and through the promotion of MRA negotiations, mainly with trade partner countries, which allows raising the level of trust and reliability of stakeholders in the country, but also as a vehicle that promotes paperless commerce through the cross-border exchange of data as covered by the latest MRA evolute agreements.
Annexes
## Annex 1

### List of participant stakeholders

<table>
<thead>
<tr>
<th>Organization</th>
<th>Name</th>
<th>Position</th>
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<tbody>
<tr>
<td>ANAM</td>
<td>Juan de Dios Roberto Vázquez Álvarez</td>
<td>General Director of Customs Attention and International Affairs</td>
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<tr>
<td></td>
<td>José Marcos García Nieto</td>
<td>General Director of Modernization, Equipment and Customs Infrastructure</td>
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<tr>
<td></td>
<td>Julio Cesar Sosa Lasso</td>
<td>Director of Customs Attention and International Affairs</td>
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<td></td>
<td>Susan Michelle Alarcón Steel</td>
<td>Director of Customs Attention and International Affairs</td>
</tr>
<tr>
<td></td>
<td>Elizabeth Martínez González</td>
<td>Director of Modernization, Equipment and Customs Infrastructure</td>
</tr>
<tr>
<td>AAAPUMAC</td>
<td>José Antonio Guerrero</td>
<td>President of the Association</td>
</tr>
<tr>
<td></td>
<td>Sergio Berlin</td>
<td>Managing Director</td>
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<tr>
<td>AI.MX</td>
<td>Philippe Boulanger</td>
<td>President</td>
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<td></td>
<td>Gonzalo Rojan González</td>
<td>Vice President of Research</td>
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<td></td>
<td>Julio Cesar Vega Gomez</td>
<td>General Director</td>
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<tr>
<td>AMANAC</td>
<td>Miguel Ángel Andrade Gomez</td>
<td>General Director</td>
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<tr>
<td>ANAFAC</td>
<td>Julius F. Smithers</td>
<td>President</td>
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<td></td>
<td>Jorge A. García Aranda</td>
<td>General Manager</td>
</tr>
<tr>
<td>ANMEC</td>
<td>Adrián Correa-Sobrado</td>
<td>ANMEC President</td>
</tr>
<tr>
<td>Administration of the National Port System of Manzanillo SA de CV</td>
<td>Cesar Octavio Sandoval Villa</td>
<td>Operations Coordinator</td>
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<td></td>
<td>Erika María Reynoso Figueroa</td>
<td>Commercialization Manager</td>
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<tr>
<td>Banxico</td>
<td>Mtro. Rodrigo Méndez Preciado</td>
<td>Institutional Liaison and Public Relations Manager</td>
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<tr>
<td></td>
<td>Mtro. Marco Antonio Arévalos Esquivel</td>
<td>Liaison Deputy Manager</td>
</tr>
<tr>
<td>CANAERO</td>
<td>Gabriel Saavedra</td>
<td>President of the National Cargo Committee-CANAERO (Company: MAS)</td>
</tr>
<tr>
<td></td>
<td>Pablo Escobedo</td>
<td>Vice President of the National Cargo Committee-CANAERO (Company: Lufthansa)</td>
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<td></td>
<td>Carlos Rogelio Hernandez</td>
<td>Secretary of the National Cargo Committee-CANAERO (Company: Aerounion)</td>
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<td></td>
<td>Yvonne Ortega</td>
<td>Treasurer of the National Cargo Committee-CANAERO (Company: Aeromar)</td>
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<tr>
<td>COFECE</td>
<td>Heidi Claudia Sada Correa</td>
<td>Executive Director of International Affairs</td>
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<tr>
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<td>Pedro Isaac Alcain Berhoulague</td>
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The following stakeholders were invited for the study but did not participate: Mexican Association of Freight Forwarders; Amazon; Mexican Business Council of Foreign Trade; TMM group; Kansas City Southern of Mexico; and the Secretary of Infrastructure, Communications and Transportation.
Annex 2

Cross-Border Paperless Trade: Legal Readiness Checklist: Mexico

Scope and structure of the checklist

This checklist will help assess the degree to which Mexican legal framework in force allows electronic documents and communications, with special emphasis on those with cross-border elements.

The checklist is structured in the following four sections:

**Section A.** Electronic Transactions and Signatures Law
A1. Electronic transactions law: general principles
A2. Electronic signatures and trust services
A3. Privacy and data protection
A4. Data sharing
A5. Data retention and electronic evidence

**Section B.** Laws regarding paperless trade systems
B1. Establishment of a paperless trade system
B2. Quality of information exchanged with the paperless trade system
B3. Service-level agreements and memorandums of understanding

**Section C.** Cross-border aspects
C1. International agreements relevant for cross-border paperless trade facilitation
C2. International standards, guidelines and recommendations

**Section D.** Other considerations
D1. Ownership of information in the paperless trade system
D2. Liability issues related to cross-border paperless trade systems
D3. Dispute settlement and conflict of laws
D4. Electronic payments and electronic transferable records
D5. Competition Laws

1. Consolidated responses to the global readiness checklist

   **A1.** Electronic transactions law: general principles
   This section is aimed to identify the general features of electronic transactions law, including whether they implement internationally recognized general principles.

   A1.a What is the legal status of electronic transactions?

   Electronic transactions are recognized by Mexican law. Mexico has adopted the UNCITRAL Model Law on Electronic Commerce through the CC, the CCF, the CFPC, and the LFPC.
In civil matters, the CCF establishes that the will of the parties may be expressed by electronic means, optical means or using any other technology. This code recognizes the validity of offer and acceptance of the offer by electronic means.

Likewise, it states that no prior stipulation is required for offers and acceptance of offers made through electronic means to produce effects.

In commercial matters, the CC establishes that no legal effects, validity or binding force shall be denied to any type of information for the sole reason of being contained in a Data Message. This code indicates that when the law requires an act, agreement or contract to be in written form to be valid, the requirement should be considered fulfilled when the act, agreement or contract is included in a data message, provided that the information contained in the message remains complete and accessible for subsequent consultation.

The Mexican Official Standard NOM-151-SCFI-2016 "Requirements that must be observed for the conservation of data messages and digitization of documents", published in the DOF on March 30, 2017, establishes the requirements that must be observed for the conservation of data messages and the digitalization of documents, to comply with the obligations the CC imposes on merchants for accountancy and conservation of documents, both in physical documents and in Data Messages. These requirements consist of obtaining Proof of Conservation of Data Messages issued by companies authorized by the SE. It should be noted that these proofs are not necessary for the Data Messages to have legal effects. Its purpose is to provide certainty about the integrity of Data Messages.

A1.b If an electronic transactions law exists, is it based on uniform models?

There is no law on electronic transactions, meaning that there is not a single body of law concentrating all the provisions related to electronic transactions, which are scattered in various laws.

A1.c What are the conditions, if any, for the legal recognition of electronic transactions?

Mexican law does not prescribe or favor the use of any particular technology, method or product to make electronic transactions. The CCF establishes that the will of the parties may be manifested by electronic, optical or any other technological mean. Moreover, it indicates that electronic commerce will observe the principle of technological neutrality and that electronic, optical or any other technology may be used in acts of commerce.

A1.d Does the law establish functional equivalence between paper documents and electronic communications?

The CC expressly establishes the functional equivalence between data messages and information documented in non-electronic means.

A1.e What is the legal status of electronic contracts?

Electronic contracts are valid under Mexican law, since it is recognized that the will of the parties can be expressed by electronic means, it also recognizes the validity of the offer and

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90 Article 1803 of the CCF.
91 Article 1805 of the CCF.
92 Article 1811 of the CCF.
93 Article 89 bis of the CC.
94 Article 93 of the CC.
95 Article 1803 of the CCF.
96 Article 89 of the CC.
97 Article 89 of the CC.
98 Article 1803 of the CCF.
acceptance made through electronic means\(^99\) and provides that no prior stipulation is required for the offer and acceptance made through electronic means to produce effects.\(^{100}\)

Mexican law establishes that when an act, agreement or contract should be in written form, the requirement will be considered fulfilled when the act, agreement or contract is included in a data message, provided that the information contained in the message remains complete and accessible for subsequent consultation.\(^{101}\) The CC recognizes the validity of entering into a contract by electronic means and expressly establishes that they will be perfected as soon as the acceptance of the offer is received.\(^{102}\)

**A1.f** Are there special rules for the use of electronic communications in paperless trade?

In civil and commercial matters, electronic communications are not subject to special requirements, since the CC recognizes the principles of technological neutrality, autonomy of will, international compatibility and functional equivalence of data messages and electronic signatures.\(^{103}\)

However, in tax and customs matters, taxpayers should use an advanced electronic signature validated by the tax authority in all tax and customs procedures performed through electronic means.\(^{104}\)

**A1.g** In particular, are there special rules for the use of trade-related data and documents in electronic form, such as certificates of origin, invoices and phytosanitary certificates?

In tax law, taxpayers must issue their invoices electronically in a specific form: the CFDI, as regulated in the CFF.\(^{105}\)

In the case of cross-border trade of goods, it must be noticed that certain procedures, such as prior import permits, phytosanitary certificates and certificates of origin, must be carried out through VUCEM.

Regarding the import and export petitions, they must be pre-validated by specific private entities authorized by the customs authorities to provide this service, before they can be transmitted to the SEA.\(^{106}\)

**A1.h** Are there any special rules for the use of electronic transferable records, such as bills of lading?

Mexican law expressly recognizes the use of electronic bills of lading. The LNCM even establishes that when the INCOTERM included in the bill of lading refers to the possibility of replacing it with a data exchange message, the message will be considered as a credit title, as long as it meets the requirements set by the LGTOC to be considered as one.

The LGTOC, which regulates credit titles, including bills of exchange, checks, promissory notes, debentures, bonds and participation certificates, does not establish special rules for the use of transferable electronic records. However, as the CC is of supplementary application to the LGTOC,\(^{107}\) electronic credit titles have been used based on CC provisions, which allow the creation of commercial acts through Data Messages.\(^{108}\) In general terms, transferable commercial electronic documents, such as checks and promissory notes, are treated the same as their physical

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\(^{99}\) Article 1805 of the CCF.

\(^{100}\) Article 1811 of the CCF.

\(^{101}\) Articles 93 of the CC and 1834 bis of the CCF.

\(^{102}\) Article 80 of the CC.

\(^{103}\) Article 93 of the CC.

\(^{104}\) Article 17-D of the CFF.

\(^{105}\) Article 29-A of the CFF.

\(^{106}\) Articles 16-A and 36 of the LA.

\(^{107}\) Article 2 of the LGTOC.

\(^{108}\) Article 89 of the CC.
versions in paper. However, there are aspects of credit titles that still do not find a solution in the electronic field, such as endorsement. In this regard, a law reform initiative that addresses this and other issues related to electronic commerce has been published in the Gazette of the Senate, which is currently pending to be voted by the full chamber.\footnote{https://infosen.senado.gob.mx/sgsp/gaceta/64/3/2021-04-29-1/assets/documentos/Dic_HCP_Pagare_Electronico.pdf}

A2. Electronic signatures and trust services

Electronic signatures serve to identify the originator of an electronic communication and ascertain their intention with respect to that communication. Certain types of electronic signatures, namely digital signatures based on public key infrastructure certificates, may provide additional information, for instance on the integrity of the data message and on timestamping.

Many laws deal with the legal recognition of electronic signatures. However, legislative approaches may vary significantly, in particular with respect to technological neutrality and the recognition of service providers.

Trust services are electronic services that provide assurance on the quality of data. Trust services are often used to establish confidence in the use of electronic communications.

A2.a Does the law address how electronic signatures, including those for identification, authorization and authentication, are added in an electronic environment? Does it require the use of a specific technology or method for electronic signatures or is it technology neutral?

Mexican law regulates the use of electronic signatures in various legal bodies, such as the CC, the LFEA and the CFF.

In commercial matters, the CC adopts the provisions of the 2001 UNCITRAL Model Law on Electronic Signatures. Thus, the CC establishes that electronic signatures can be generated by any means of this nature and that they will have the same effects as a handwritten signature.\footnote{Articles 89 and 96 of the CC.} In accordance with the CC, when the law requires or the contracting parties agree on the existence of a signature in relation to a data message, the requirement should be satisfied by using an electronic signature, as long as it is appropriate for the purposes for which the data message was generated or communicated.\footnote{Article 97 of the CC.} In addition, the CC establishes that electronic signatures will be considered as advanced or reliable when they meet, at least, the following requirements: i) the data required for creating the signature corresponds exclusively to the signatory; ii) the signature’s creation data was, at the time of signing, under the sole control of the signer; iii) it is possible to detect any alteration of the electronic signature made after the moment of signature; and iv) it is possible to detect any alteration of the information’s integrity of a data message, made after the moment of signature.

In administrative matters, the LFEA requires and regulates the use of the advanced electronic signature in electronic documents and in data messages related to administrative communications, procedures, services, legal acts, actions and procedures.\footnote{Article 4 of the LFEA.} According to the LFEA, the guiding principles of the advanced electronic signature are functional equivalence, authenticity, integrity, technological neutrality, non-repudiation and confidentiality.\footnote{Article 8 of the LFEA.} In accordance with the LFEA, electronic documents and data messages that include an advanced electronic signature will produce the same effects as those presented with a handwritten signature and, consequently, deserve the same evidentiary value.\footnote{Article 7 of the LFEA.}
The LFEA establishes that the use of the advanced electronic signature requires a current digital certificate issued by a certifying authority and a private key under the exclusive control of the user.  

The law recognizes as certifying authorities the SFP, the SE, the SAT, as well as other agencies and different entities and certification service providers that with favorable opinion of the SFP.  

In tax law, according to the CFF, taxpayers are required to use an advanced electronic signature, the "e. signature", to submit electronic documents before tax and customs authorities.  

A2.b Does the law adopt a functional equivalence approach for electronic signatures?  

The CC expressly recognizes the principle of functional equivalence between electronic and handwritten signatures. The LFEA also expressly establishes the principle of functional equivalence of the advanced electronic signature, specifying that this means that the advanced electronic signature in a data message satisfies the signature requirement in the same way as the handwritten signature in a printed document.  

The CFF expressly establishes as well that, in digital documents, the e.signature will replace the handwritten signature of the signatory, guaranteeing the integrity of the document and producing the same effects that documents with handwritten signatures. Likewise, the LA establishes that the use of the e.signature will produce the same effects as a handwritten signature.  

A2.c Is the law based on international standards?  


A2.d Does the law recognize foreign electronic signatures?  

National legislation does recognize foreign electronic signatures. The CC expressly establishes that all electronic signatures, created or used outside of Mexico, have the same legal effects as those created or used within the country, as long as they present an equivalent degree of reliability. This code establishes that international standards recognized by Mexico and any other pertinent means of conviction will be considered to assess their reliability.  

A2.e Are there special rules for the use of electronic signatures in paperless trade?  

Regarding cross-border trade of goods, it is necessary to use an e.signature to access the VUCEM, where certain import permits, certificates of origin and COVE should be processed. In customs matters, it is also necessary to use the e.signature to sign and submit import and export petitions into the SEA.  

A2.g Does the law deal with trust services?  

The CC contemplates trust services by establishing that SE accredited Certification Trust Service Providers may: verify the identity of users and their connection with ways of electronic identification; verify the integrity and sufficiency of the requester's data message and verify the electronic signature of the person performing the verification; register the identifying elements of the signatories and of the
information used to confirm compliance with the reliability of advanced electronic signatures and to issue the certificate; issue digital time stamps; issue certificates of data messages’ conservation; provide document digitization services; and any other activity compatible with the above.\textsuperscript{125}

A3. Privacy and data protection

Privacy and data protection are important elements of the legal landscape of electronic commerce as they may impose conditions to data transfer between the parties. This section is aimed at identifying laws relating to privacy and data protection, with special attention to those relevant to paperless trade.

A3.a Is there a law on privacy and data protection? If so, what are its features? Is it based on international standards?

Mexican laws on privacy and data protection are the LFPDPPP and the LGPDPPSO. The LGPDPPSO is focused on the protection of personal data held by public organizations, while the LFPDPPP aims to protect personal data held by the private entities. Both have the purpose of regulating the legitimate, controlled and informed treatment of personal data, in order to guarantee the privacy and the right of informative self-determination of individuals. Both oblige those responsible for the data to observe the principles of legality, motivation, loyalty, consent, quality, proportionality, information and responsibility.\textsuperscript{126}

The aforementioned regulations are based on international standards, such as the APEC Privacy Framework and the Guidelines for the Harmonization of Data Protection in the Ibero-American Community of the Ibero-American Data Protection Network, which tried to follow the guidelines of the legislation of the European Community and the Convention 108 of the Council of Europe for the Protection of Individual with regard to the Automated Processing of Personal Data and Additional Protocol to the Convention for the Protection of Individuals with regard to the Automated Processing of Personal Data, Control Authorities and Transborder Data Flows. However, it is worth mentioning that Mexico has not yet ratified the modernized version of the aforementioned Convention 108, also known as Convention 108+.

A3.b Does domestic law address the transfer of data abroad?

National legislation addresses the transfer of data abroad.

The LGPDPPSO establishes, as a general rule, that any transfer, national or international, must be formalized through a contract, collaboration agreement or any legal instrument as applicable in accordance with the regulations that bind the person responsible for the data, and that allows such person to demonstrate the scope of the treatment of the data, as well as the obligations and responsibilities of the parties. The same law establishes that this will not be applicable when international data transfers are already regulated in a law or a treaty to which Mexico is a party.\textsuperscript{127}

On the other hand, the LFPDPPP regulates, in general terms, the transfer of data to third parties, both national and international, subject to various requirements, such as that the person responsible for the data should communicate the privacy notice and the purposes of data treatment to the third party, and the third party should assume the same obligations as the person responsible for the data with respect to the transferred data.\textsuperscript{128}

\textsuperscript{125} Articles 100 and 101 of the CC.
\textsuperscript{126} Articles 6 of the LFPDPPP and 16 of the LGPDPPSO.
\textsuperscript{127} Article 66 of the LGPDPPSO.
\textsuperscript{128} Article 36 of the LFPDPPP.
A3.c Do international agreements contain provisions relevant to privacy and data protection?

The international agreements to which Mexico is a Party contain relevant provisions for both privacy and data protection.

The CPTPP provides obligations for the Parties in privacy and data protection matters, including adopt or maintain a legal framework that protects the personal information of electronic commerce users, taking into account the principles and guidelines of relevant international organizations; and adopt non-discriminatory practices while protecting electronic commerce users from personal data violations occurring within their jurisdiction.129

In the USMCA, the Parties recognize the following key principles in terms of privacy and data protection: the limitation of collection, choice, data quality, specification of purpose, limitation of use, security safeguards, transparency, individual participation and accountability. The treaty stipulates that to develop its own legal framework, each Party shall consider the principles and guidelines of relevant international organizations, such as the APEC Privacy Framework and the Recommendation of the OECD Council regarding OECD Guidelines on privacy protection and cross-border flows of personal data (2013). Likewise, the treaty recognizes that the APEC Cross-Border Rules of Privacy is a valid mechanism to facilitate the cross-border transfer of information while protecting personal data.130

Similarly, the Additional Protocol to the Framework Agreement of the Pacific Alliance establishes that the Parties must adopt or maintain laws, regulations or administrative measures for the protection of the user's personal data that participate in electronic commerce and that the Parties should consider the existing international standards in this matter.131

Also, Mexico is part of Convention 108 and its Additional Protocol, both of the Council of Europe, as well as the Additional Protocol regarding Control Authorities and Transborder Data Flows, and the Guidelines of the Inter-American Network, which are instruments that contain provisions relevant to privacy and data protection. Another relevant issue is that the Additional Protocol of Convention 108 recognizes the human right to the protection of personal data, and obliges the parties to create totally independent control authorities that constitute an element for the effective protection of people in terms of personal data processing.

A3.d Does the law require data localization? If so, does it apply to paperless trade?

Mexican law does not require to collect, treat or storage data within a specific jurisdiction, except for some financial provisions, which require certain financial institutions to maintain their servers in national territory.

In various treaties signed by Mexico, such as the USMCA132 and the CPTPP133 it is stipulated that the Parties must not require the location of computer facilities in their territory as a condition for doing business.

A3.e Are there any special rules on privacy and data protection for paperless trade?

There are no special privacy and data protection rules for paperless trade. This is governed by the general provisions established by the LFPDPPP and the LGPDPPSO.

129 Article 14.8 of the CPTPP.
130 Article 19.8 of the USMCA.
131 Article 13.8 of the Additional Protocol to the Framework Agreement of the Pacific Alliance.
132 Article 19.12 of the USMCA.
133 Article 14.13 of the CPTPP.
A3.f Does the law protect the confidentiality of commercial information in electronic form?

There are no specific laws for the protection of confidentiality of commercial information in electronic format, however, such confidentiality should be considered as protected under the general property regime established by civil legislation. Furthermore, the information will have additional protection in case is considered as an industrial secret under the LFPPI. This law establishes that all information of commercial application kept as confidential which could provide a competitive or economic advantage is considered an industrial secret. The same law establishes that the misappropriation of such information constitutes an administrative infraction and criminalizes its improper disclosure.

On the other hand, it should be noted that, in tax and customs matters, officials are obliged to keep absolute confidentiality regarding the information of importers and exporters, in terms of the CFF.

A3.g Are there provisions on cybercrimes that are applicable to paperless trade?

The CPF criminalizes the modification, destruction, loss, misappropriation or copying of information contained in computer systems or equipment protected by some security mechanism. However, other malicious behaviors related to informatics must be prosecuted under other generic crimes, such as fraud. Only some local criminal codes expressly classify cybercrime, such as the one of the State of Sinaloa.

A4. Data sharing

Paperless trade systems are often built around the notion of a single window for customs operations, which involves collecting trade-related data and documents, and sharing them among participants. This process raises delicate issues. Besides general rules on privacy, data protection and data retention, specific legal texts may address data sharing, especially among public agencies.

A4.a Are there agreements or policies for collecting, accessing, using and sharing data among government agencies participating in a paperless trade system?

The VUCEM allows foreign trade agents to process various procedures related to import and export, such as prior import permits, phytosanitary certificates and certificates of origin, through a single electronic entry point. For accomplishing this, the authorities that participate in the VUCEM must adopt open, compatible and interoperable computer networks, in accordance with the best international practices.

The VUCEM allows foreign trade agents to process various procedures related to import and export, such as prior import permits, phytosanitary certificates and certificates of origin, through a single electronic entry point. For accomplishing this, the authorities that participate in the VUCEM must adopt open, compatible and interoperable computer networks, in accordance with the best international practices.

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134 Article 163, section I of the LFPPI.
135 Article 386, section XIV of the LFPPI.
136 Article 402, section III of the LFPPI.
137 Article 69 of the CFF.
138 Article 211 bis 1 of the CPF.
139 Article 217 of the CPS.
140 Article Three of the Decree establishing the Mexican Digital Window for Foreign Trade.
141 Article Three of the Decree establishing the Mexican Digital Window for Foreign Trade.
On the other hand, it is worth mentioning that even though the VUCEM it is not only aimed to paperless trade, it establishes a digital contact point for Government Procedures and Information through the internet website www.gob.mx. The public administration agencies must facilitate access, consultation and transfer of information to achieve interconnection and interoperability of their electronic processing systems and the VUCEM.

A5. Data retention and electronic evidence

The legal effect of electronic records often depends on their evidentiary value, i.e. the ability to use those records before a court to substantiate a legal claim. This section is aimed at clarifying which retention and evidence rules apply.

A5.a Does the law establish general requirements for data retention, including a minimum and maximum retention period? Do they apply to electronically stored data?

In commercial matters, the CC establishes that merchants should keep data messages and any other documents creating commercial rights and obligations for a minimum period of ten years. It also indicates that data messages should be kept unaltered, meaning without modifications after their creation and being accessible for later consultation.

For tax purposes, in general terms, the CFF requires taxpayers to keep their accounts in electronic or digital media, for a period of five years.

A5.b Does the law require or favour the use of specific trust services or specific service providers for data retention?

The CC does not require the use of trust services as a condition for the validity of data messages and digital documents, since it establishes that the legal effects, validity or mandatory force of any type of information will not be denied for the sole reason of being contained in data messages.

However, the civil code and the NOM-151-SCFI-2016 provide that merchants must have a data retention certificate issued by a Certification Services Provider accredited by the SE, when retaining data messages that contain their general ledger, minutes book, receipts of its operations and contracts, agreements or commitments that create rights and obligations. Nonetheless, the regulations do not establish any sanction for non-compliance with this duty.

Although not using certification services does not have a specific sanction, using them can be beneficial, given the presumption of legality entailed in the use of the advanced electronic signature and the greater reliability of digitalized documents, supported by a certificate issued by a Certification Services Provider accredited by the SE.

In tax and customs matters, the taxpayer is required to use an advanced electronic signature with a valid certificate to present tax declarations and to perform import and export operations. The taxpayer should occur to the SAT to prove his identity to obtain his advanced electronic signature certificate.

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142 Article 1 of the Decree establishing the National Single Window for Government Procedures and Information.
143 Article 7 of the Decree establishing the National Single Window for Government Procedures and Information.
144 Article 49 of the CC.
145 Article 30 of the CFF.
146 Article 89 bis of the CC.
147 Articles 34, 38 and 49 of the CC and Numeral 5.1 of NOM-151-SCFI-2016. Requirements that must be observed for the preservation of data messages and digitization of documents.
148 95 bis 1 c and 97 of the CC.
149 Article 17-D of the CFF.
A5.c Do data custodians, such as data centres, assume liability for loss or damage to electronically stored information? Is such liability contractual, statutory or both?

The custodians of electronically stored information are responsible before the service users for the damages or losses derived from losing or damaging the information, in terms of civil legislation.\textsuperscript{150}

In addition, custodians of electronically stored information could incur in criminal liability if they destroy or cause its loss.\textsuperscript{151}

It should be noted that, if the custodian of the electronically stored information acts as a Trust Service Provider, he would also incur in administrative liability, possibly resulting in temporary or permanent suspension of his functions, depending on the seriousness of the case.\textsuperscript{152}

A5.d Is electronic evidence admissible in judicial and other proceedings?

The CC establishes that data messages may be used as evidence in any procedure before legally recognized authorities and that this evidence should have the same legal effect as printed documents, as long as the electronic evidence complies with the provisions of the CC and other standards applicable to trade. Likewise, it expressly admits data messages as evidence in court.\textsuperscript{153}

In civil matters, the CFPC expressly recognizes as evidence the information generated or communicated in electronic, optical or any other technological means.\textsuperscript{154} Considering that the CFPC is of supplementary application to the Amparo Law, the LFPCA, the LFPA and the CFF, electronic evidence is equally admissible in constitutional, administrative and tax procedures.\textsuperscript{155}

A5.e Is electronic evidence that is generated, stored or collected abroad admissible? If so, under which conditions?

The CC and the CFPC admit data messages and information generated or communicated in electronic means as evidence, without making any distinction regarding the place where they are generated, stored or collected. For this reason, it should be considered that Mexican law admits electronic evidence generated, stored or compiled abroad, subject to the same reliability and integrity standards as the one generated, stored or compiled in the country.

B1. Establishment of a paperless trade system

The establishment and operation of a paperless trade system often requires a set of dedicated laws and regulations. This section is aimed at identifying those laws and regulations as well as the basic features of governance of the paperless trade systems.

B1.a Does a dedicated paperless trade system, such as a single window, exist? If so, what legal instruments are used to establish and operate it? How do these instruments define the rights and obligations of the participants?

There is a system focused on paperless trade mainly consisting in the VUCEM and the SEA.

The VUCEM allows foreign trade agents to process multiple procedures related to the import and export of goods, such as prior import permits, phytosanitary certificates, certificates of origin and electronic proofs of value through a single electronic entry point.\textsuperscript{156} The VUCEM was created

\textsuperscript{150} Article 2104 of the CCF.
\textsuperscript{151} Article 211 bis 1 of the CPF.
\textsuperscript{152} Article 110 of the CC.
\textsuperscript{153} Articles 89 bis and 1205 of the CC.
\textsuperscript{154} Article 210-A of the CFPC.
\textsuperscript{155} Articles 2 of the LFPA, 1 of the LFPCA and 5 of the CFF.
\textsuperscript{156} First Article of the Decree establishing the Mexican Digital Window for Foreign Trade.
through the Decree establishing the Mexican Digital Window for Foreign Trade and operates under the VUCEM Conditions of Use Guide. The latter establishes the requirements that users should meet, the conditions of use, the way in which procedures must be carried out and the obligations of the authorities.

On the other hand, the SEA is the computer system that is used for the electronic processing of import or export declarations before the customs authorities, with the purpose of clearing foreign trade goods from customs, in terms of the LA. The obligations of the system users are established by the LA, its regulations and the RGCE, which is published annually. The latter ones establish the requirements that SEA users must meet to process foreign trade operations, as well as the formats, filling guidelines, rectification and processing of import and export declarations for customs clearance.

**B1.b Which government agencies participate in the paperless trade system? On what legal basis?**

In accordance with the provisions of the LA, the operation of the SEA corresponds to the SAT. On the other hand, in accordance with the provisions of the Decree establishing the Mexican Digital Window for Foreign Trade, the SAT is the responsible authority for the administration of VUCEM. In addition, the Decree recognizes the SAT, along with the SHCP, ANAM, SE, SSA, SEDENA, SEMARNAT, SEP, SADER and SENER, as a competent authority in matters of foreign trade. The latter, because such agencies are the ones empowered to process customs clearance, manage certificates of origin, or regulate the entry or exit of goods from the national territory, within the scope of their respective functions.

**B1.c Is there a central body tasked with setting up and managing the paperless trade system?**

The SAT is the central agency tasked with setting up and managing the paperless trade system, by managing the VUCEM and the SEA.

**B2. Quality of information exchanged with the paperless trade system**

The main function of the paperless trade system, including the single window, is to facilitate the exchange of trade-related data and documents in electronic form. The information is originally submitted on paper or electronically by commercial operators that have a duty to make complete and correct statements. Moreover, in an electronic environment, there could be special procedures to attribute the declarations originating from the various participants. Electronic signatures may play a significant role in the attribution of the declarations.

**B2.a Does the law on the substantive requirements of trade-related data and documents also apply to paperless trade?**

The data and documents transmitted to the SEA and the VUCEM electronically, continue to be subject to the same applicable substantive requirements depending on their commercial, fiscal or administrative nature.

**B2.b Are there specific rules for the exchange of trade-related data and documents in electronic form?**

The LA establishes as a general rule that customs clearance through import and export declarations should be processed electronically. This rule is equally applicable to cross-border electronic trade. In accordance with the LA, importers, exporters and customs brokers should

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157 Articles 6 and 36 of the LA.
158 Articles 6 and 16 of the LA.
159 Article Twelfth of the Decree establishing the Mexican Digital Window for Foreign Trade.
160 Article Second of the Decree establishing the Mexican Digital Window for Foreign Trade.
process import and export declarations through the SEA, complying with the requirements established by the law, its regulations and the RGCE. Among these requirements is to use the advanced electronic signature or digital seal issued by the SAT in terms of the CFF, or any other technological means authorized by the customs authorities. The advanced electronic signature, digital seal or any other technological means, whichever the case, will produce the same effects granted by law to handwritten signatures. The electronic or digital documents received through the SEA have full evidentiary value and the users of the system should keep them in the same format as received, in electronic records that should be considered as part of its accounting records for tax purposes.\textsuperscript{165}

B3. Service-level agreements and memorandums of understanding

A number of legal texts, such as service-level agreements, memorandums of understanding, end-user agreements and other contractual agreements, are relevant to the operation of a paperless trade system. These legal texts define the obligations of the participants in the paperless trade system. For instance, service-level agreements define the obligations of the service provider with respect to the availability of the system, response time, processing time and other technical requirements that are critical to define to ensure the availability and smooth operation of the system.

B3.a Are there service-level agreements or memorandums of understanding governing paperless trade operations? If so, who are the parties and the legal authority for concluding these agreements?

The SAT does not disclose service-level agreements with its service providers for the SEA and VUCEM, apart from the publication of the respective bidding rules, which are not easily located and accessed.

On the other hand, the SAT and the authorities that participate in the VUCEM do not celebrate memorandums of understanding, as each of them issues official regulations indicating which of their procedures will be processed through the platform.

C1. International agreements relevant for cross-border paperless trade facilitation

C1.a Which international agreements relevant to paperless trade facilitation are in force in your country?

Mexico is part of the TFA of the WTO, which binds its contracting Parties to implement various measures, such as electronic payments, the use of electronic documents and a single window.

Chapter 14 of the CPTPP, titled Electronic Trade, includes provisions for the non-discrimination of digital products, the establishment of a national framework for electronic transactions, authentication and electronic signature, consumer protection, personal data protection, paperless trade, cross-border transfer of information by electronic means, location of informatic facilities, unsolicited commercial information and cybersecurity.

The USMCA includes Chapter 19, titled Digital Trade, which contains provisions very similar in topics and substance to the ones stipulated under the CPTPP, plus others, such as provisions related to source code.

The Additional Protocol to the Framework Agreement of the Pacific Alliance has a Chapter 13, titled Electronic Trade, which includes provisions on consumer protection, paperless trade, personal data protection, authentication, digital certificates and cross-border flow of information, among others.

\textsuperscript{165} Article 6 of the LA.
Finally, the Mexico-Panama FTA include a Chapter 14 Electronic Commerce, containing provisions on consumer protection, paperless trade, personal data protection, authentication, certification, and cross-border flow of information.

C1.b Are there technical or operational international agreements providing for legal recognition of electronic communications or documents?

The ANNEX of the Resolution that creates the General Rules regarding the application of the customs provisions in the Additional Protocol to the Framework Agreement of the Pacific Alliance establishes a format for electronic certificates of origin.

The implementation of this format complies with Decision 4 of the Free Trade Commission of the Additional Protocol to the Framework Agreement of the Pacific Alliance, regarding the General Procedure for the Issuance and Reception of Certificates of Origin Issued and Signed Electronically within the framework of the Interoperability of the Single Windows for Foreign Trade in the Pacific Alliance, issued through the Agreement published in the DOF on April 25, 2018.

Within the framework of the alliance, the electronic exchange of certificates of origin has been achieved with the single foreign trade windows of Peru, Colombia and Chile.

C1.c Are contracts used to provide for mutual recognition of electronic communications and signatures?

Contracts are not used in Mexico to provide for mutual recognition of electronic communications and signatures.

C2. International standards, guidelines and recommendations

C2.a Which standards, regulations or guidelines are in use for the cross-border exchange of trade-related electronic communications?

Both the CPTPP and the USMCA oblige Mexico to allow the cross-border transfer of information by electronic means, in the course of business.

Mexico, as Party to the TFA, is encouraged to use international standards as the basis for its import formalities and procedures, facilitating cross-border interoperability and data flow. Consequently, as a member of the WCO, Mexico uses the SAFE Framework and the WCO’s Data Model.

D1. Ownership of information in the paperless trade system

Paperless trade facilitation involves the collection and exchange of a large amount of information. Delicate issues arise with respect to data subject rights, confidentiality and other rights on that information. For instance, the paperless trade system operator may acquire the right to use, analyse and redistribute the information submitted to the system. In other cases, the system may be designed to avoid the storage of any information, so as to simplify compliance with privacy and data retention laws.

D1.a What defines rights regarding information exchanged in the paperless trade system, the law or contractual agreements?

The law protects the ownership of information exchanged in the paperless trade system.

In terms of the CFF, tax and customs authorities are required to keep absolute confidentiality of the information provided by importers and exporters. This admits a few exceptions, like being able to share information with officials in charge of managing and defending tax interests and complying with court orders.\(^{163}\)

\(^{162}\) Article 10.3 of the TFA.

\(^{163}\) Article 69 of the CFF.
It should be noted that pursuant to the LGRA authorities may face economic sanctions, removal from office or even from public service, for improperly using or disclosing the information they have access to due to their assignment.\textsuperscript{164}

Likewise, the CPF classifies as a crime the unauthorized access or reproduction of information contained in government computer systems or equipment.\textsuperscript{165}

D2. Liability issues related to cross-border paperless trade system

Trading parties and other concerned entities may suffer losses from the incorrect transmission of information and may seek compensation for these loses from those liable for them under contracts among the transacting parties or, if this is not possible, under the general law of civil wrongs. This form of liability is separate from any sanction that may apply under criminal and administrative law.

D2.a May the operator of the paperless trade system be held liable for its services?

The SAT may be held liable for the operation of the VUCEM in terms of the LFRPE. In accordance with this law, the importers, exporters and customs brokers who suffer damages or losses as a result of the irregular administrative activity of the SAT in the operation of the VUCEM will have the right to be compensated. SAT’s activity will be considered as irregular if it lacks a legal basis or justified cause to legitimize the damage.\textsuperscript{166} However, the obligation to compensate does not apply in a fortuitous event, force majeure, scientific or technical unpredictability, nor in case the affected party caused the damage.\textsuperscript{167} In the event that the SAT grants a concession for the operation of the VUCEM to an private entity and has to pay compensation for the irregular activity of the concessionaire, it may demand payment from the concessionaire.\textsuperscript{168}

In case the SAT hires a private entity for the operation of the VUCEM and is forced to pay compensation for the fault of the private entity, it may demand payment from it. Regarding the SEA, it must be considered that the pre-validation of declarations and electronic data processing services are provided to importers, exporters and customs brokers, directly by private entities authorized by the SAT. In these cases, the providers of these services may be held liable in terms of civil law. According to the CCF, the failure to comply with obligations entails the duty to compensate the damages or losses caused.\textsuperscript{169}

D2.b May government agencies participating in the paperless trade system be held liable for their interaction with the system?

The authorities empowered in foreign trade matters that interact with the VUCEM may be held liable for their interaction with the system in terms of the LGRPE. Importers, exporters and customs brokers who use the VUCEM may claim compensation if they suffer damages or losses as a result of the irregular administrative activity of the public agencies that interact with the system. Their activity will be considered as irregular if it lacks a legal basis or justified cause to legitimize the damage.\textsuperscript{170} However, the obligation to compensate does not apply in a fortuitous event, force majeure, scientific or technical unpredictability, nor in case the affected party caused the damage.\textsuperscript{171}

\textsuperscript{164} Articles 7 and 84 of the LGRA.
\textsuperscript{165} Article 211 bis 2 of the CPF.
\textsuperscript{166} Article 1 of the LFRPE.
\textsuperscript{167} Article 3 of the LFRPE.
\textsuperscript{168} Article 30 of the LFRPE.
\textsuperscript{169} Article 2104 dl CCF.
\textsuperscript{170} Article 1 of the LFRPE.
\textsuperscript{171} Article 3 of the LFRPE.
D2.c May service providers, such as internet service providers and trust services providers, be held liable for interacting with the paperless trade system?

Service providers, such as internet service and trust service providers, may be held liable for their interaction with the paperless trade system under civil law. The service provider should compensate its clients for the damages or losses they suffer as a result of the breach of service or respond in the terms stipulated in the respective contract.\footnote{Article 2104 of the CCF.}

D2.d May other participants in the paperless trade system (e.g. customs brokers) be held liable for their interaction with the system or their role in the passage of information or data passing through their systems?

Importers, exporters and customs brokers who transmit inaccurate or false information and data to the SEA may be held responsible for committing administrative infractions and, therefore, be sanctioned by customs authorities.\footnote{Articles 184, 184-A, 184-B and 185 of the LA.} The LA establishes that the applicable fines and sanctions shall be imposed to the person who committed the infraction.\footnote{Article 195 of the LA.}

On the other hand, customs brokers may be held liable before the importers and exporters engaging their services, in terms of the respective contract, or in absence of a stipulation, may be obliged to compensate them for damages or losses.\footnote{Article 2104 of the CCF.}

D3. Dispute settlement and conflict of laws

The following section is aimed at examining the dispute settlement mechanisms for the operators of a single window or other paperless trade system

D3.a Do national laws deal with choice-of-forum and choice-of-law issues relevant to paperless trade facilitation?

The law does not establish special choice-of-forum or choice-of-law provisions for paperless trade, so these issues are governed by general law.

In accordance with the CC, the contracting parties can freely designate the forum. In absence of contractual designation, the competent judge will be the one designated by the debtor, or lacking designation, the one with jurisdiction in the debtor's domicile.\footnote{Article 1104 of the CC.}

On the other hand, the CCF allows the contracting parties to designate the applicable law\footnote{Article 13 of the CCF.}. In absence of a stipulation, Mexican laws will govern the acts and events that occur within the country or that must be executed in the country, except when other laws contemplate the application of a foreign law, also considering the provisions of international treaties that Mexico is part of.\footnote{Article 12 of the CCF.}

D3.b Does the law contemplate alternative means of resolving disputes in international trade, such as arbitration and mediation? Are the results of any such means clearly enforceable across borders?

The CC contemplates commercial arbitration as an alternative dispute resolution mechanism. The civil code grants validity to national and international arbitration conducted within the country, unless international treaties in which Mexico is a Party or other applicable laws establish a different procedure or provide that certain disputes are not arbitrable.\footnote{Article 1415 of the CC.}

\footnote{Article 2104 of the CCF.}
\footnote{Articles 184, 184-A, 184-B and 185 of the LA.}
\footnote{Article 195 of the LA.}
\footnote{Article 2104 of the CCF.}
\footnote{Article 1104 of the CC.}
\footnote{Article 13 of the CCF.}
\footnote{Article 12 of the CCF.}
\footnote{Article 1415 of the CC.}
The CC provides that an arbitration award, regardless of the country in which it was issued, shall be recognized as binding and may be enforced by submitting a written petition to a judge.\footnote{Article 1461 of the CC.}

However, Mexico has not adopted the UNCITRAL Model Law on International Commercial Mediation nor the Agreement on International Transactions Resulting from Mediation of 2018 in its domestic legislation.

D3.c Are online dispute resolution mechanisms used in paperless trade facilitation?

The law does not provide for electronic dispute resolution mechanisms to be used specifically for paperless trade. However, in constitutional, criminal, tax, administrative, labor and bankruptcy matters, the procedural laws expressly contemplate the possibility of conducting trials through electronic means. Besides, jurisdictional authorities have also allowed using electronic means to conduct trials in commercial matters, including electronic files, email notifications and videoconference hearings.\footnote{General Agreement 12/2020 of the Plenary of the Council of the Federal Judiciary, which regulates the integration and processing of electronic files and the use of videoconference calls in all matters that are the responsibility of the jurisdictional bodies in charge of the Council. Note: This document is included in annex 6 Regulations, which includes data on the publication and a hyperlink.}

D4. Electronic payments and electronic transferable records

Electronic payments are the backbone of the digital economy. To the extent that electronic payments are available, they could be incorporated in the paperless trade system. Usually, this is done by using electronic funds transfers, i.e. by ordering a bank to transfer money (wire transfer) or by using credit or debit cards. In other cases, certain commercial documents may be used to perform payment or give guarantee of payment.

D4.a Does the paperless trade system accept or initiate electronic payments?

The paperless trade system requires tariffs, taxes, duties, countervailing duties and fines derived from import and export operations to be paid through the PECE system. This system, after validating the respective import or export petition, makes the SEA create a referenced deposit key (i.e. capture line) that importers, exporters or customs brokers may pay at credit institutions authorized to collect foreign trade contributions, using the methods of payment available at the institution, including electronic payments.\footnote{Article 83 of the LA and rule 1.6.2. of the RGCE by 2022.} So, the capture line can be paid through the bank portal or over-the-counter at the branch by any available method of payment, such as check, credit card or debit card.

D4.b Does the paperless trade system accept electronic transferable records?

The LA requires to present the bill of lading along with the corresponding import declaration to the SEA, without making any distinction between electronic or paper bills of lading, so it may be considered that electronic bills of lading are allowed in the paperless trade system. It should be noted that there are no other transferable documents or proofs of ownership that are necessary to process foreign trade operations through the SEA or the VUCEM.\footnote{Article 36-A, section I of the LA.}

In Mexico, the paperless trade system is increasingly incorporating new electronic trade-related exchanges of data. This is the case of certificates of origin, in which the electronic exchange of certificates of origin has been achieved with the foreign trade single windows of Peru, Colombia and Chile in the PA framework.
D5. Competition laws

The following section is aimed at examining the competition law issues involved in a single window or other paperless trade system.

D5.a Does a competition law exist? If so, is it applicable to the single window operators or other paperless trade services providers?

Competition in Mexico is regulated by the LFCE. The purpose of this law is to guarantee free competition and concurrence, as well as to prevent, investigate and combat monopolies, monopolistic practices, concentrations and other restrictions on the efficient functioning of markets. This law is applicable to all areas of economic activity, including the single window operators or providers of paperless trade services.\(^{184}\)

The agency in charge of applying and enforcing the LFCE is the COFECE, except for the Broadcasting and Telecommunications sector, for which the competent agency is the IFT. Competence conflicts between both organizations are resolved by a Collegiate Circuit Court specialized in economic competition, broadcasting and telecommunications matters.\(^{185}\)

D5.b Does the law give authorized economic operators preferential access to the paperless trade system?

The LA contemplates being certificated as AEO. This certification can be granted to Mexican companies that meet certain levels of compliance with tax, customs and security standards.\(^{186}\)

Companies certified as AEO do not have preferential access to the paperless trade system, although they have other benefits, among which are: performing an “Express” import customs clearance using exclusive lanes, export custom clearance at domicile, considering materials rejected by quality control as waste, rectifying petitions without authorization within the terms and conditions established in the RGCE, and a reduction of fines in certain cases.\(^{187}\)

D5.c Are paperless trade service providers selected on a competitive basis? Are foreign service providers admitted?

The VUCEM service provider was chosen by the SAT through an open international public bidding in electronic format in terms of the LAASSP. In accordance with this law, the way to choose the suppliers, as a general rule, must be through public bidding, whether it being a national bidding, an international bidding limited to countries that are part of a free trade agreement with Mexico containing provisions for government purchases, or an open international bidding. Exceptionally and having a justified cause, suppliers may be chosen by invitation to at least three people or by direct award.\(^{188}\)

Regarding SEA, the LA establishes that the SAT shall authorize the provision of electronic data processing services related to customs clearance, to whoever meets the requirements established in the law and in the respective bidding issued by the SAT. The law does not exclude foreigners from participating.\(^{189}\)

\(^{184}\) Article 1 of the LFCE.

\(^{185}\) Article 5 of the LFCE.

\(^{186}\) Article 100-A of the LA.

\(^{187}\) Articles 100-B of the LA and rule 7.3.3. of the 2022 RGCE.

\(^{188}\) Article 26 of the LAASSP.

\(^{189}\) Article 16 of the LA.
Annex 3

Answers to the technical readiness checklist

Legal and Technical Working Group of the Interim Intergovernmental Steering Group on Cross-Border Paperless Trade Facilitation

Introduction

1. The checklist will help users assess the degree to which the technical environment of their country is ready to support cross-border paperless trade, identify existing technical gaps, and design actions to improve the technical environment. The checklist will also help to raise the awareness of its users on technical issues in cross-border paperless trade.

2. It should be noted that the checklist is not intended to assess the readiness of a country to join the Framework Agreement on Facilitation of Cross-Border Paperless Trade in Asia and the Pacific, which was adopted as a United Nations treaty in 2016. This treaty enables parties to gradually adapt their trade procedures and related systems for the purpose of cross-border trade without paper. It is not necessary to modernize procedures and systems before ratifying or acceding to the Agreement. Paperless trade implementation is a work in progress, and the Framework Agreement is a tool to support such progress regardless of the level of readiness of a country.

3. The checklist is in the form of a questionnaire on technical issues and motivation factors in implementing paperless trade systems and cross-border data exchange. It is necessary to assess the status of paperless trade systems implementation at the national level before looking into readiness for cross-border data exchange. The checklist takes into consideration national issues such as the implementation of electronic and paperless transactions at the national level, and the importance of a single window for the cross-border paperless trade data exchange. The questionnaire is structured in two sections: section A—paperless trade system at the national level and section B—level of national status towards cross-border data exchange.

4. Section A focuses on technical issues related to the implementation of electronic trade systems and paperless environment at the national level. Technical issues are grouped into the following eight categories: i) institutional and governance bodies for electronic data exchange in paperless environment; ii) level of automation; iii) information and communication technology (ICT) infrastructure (connectivity, sustainability and recovery); iv) security; v) business process re-engineering; vi) data harmonization and standardization; vii) capacity-building; and viii) other matters.

5. Section B is aimed at assessing the ability of a country or organization to embark on cross-border paperless trade data exchange. The questions are related to various issues and challenges in the implementation of paperless trade systems and cross-border data exchange. The answers to these questions will help to reveal the current status and assess the level of readiness to implement paperless trade systems and cross-border data exchange.

6. Questions in Sections A and B may be answered by the relevant government personnel involved in trade facilitation and cross-border trade activities. It is recommended that all relevant government personnel engaged in elements of paperless trade and key private stakeholders collaborate to completing the checklist.

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A. Paperless trade system at the national level

A1. governance bodies.

One of the critical success factors for the implementation of paperless trade systems is strong commitment from the Head of Government, without which many projects of this magnitude tend to stall. When top management is committed to spearhead a project, issues of financial support and access to other resources maybe addressed more readily. Coordination among government agencies and between the government and the private sectors is not an easy task but it can be carried out more efficiently and effectively with the establishment of an institutional body equipped with a strong governance structure. The institutional set-up provides a venue for relevant officials to come together to discuss functionalities and other technical and legal matters. By establishing the role and responsibilities of each unit/group as well as reporting mechanisms, the governance structure expedites the implementation of paperless trade systems.

A1.1 Is there a governance structure established for paperless trade, (e.g. national trade facilitation council)?

Yes. Recently created on a permanent basis, the NTFC (DOF 22/01/2021) in accordance with the commitments adopted in the WTO within the framework of the TFA.

Now, although the NTFC has not been the first structure created in the country to guide efforts in the simplification and automation of processes, in a coordinated manner in the different government agencies, it is understood that this Committee will henceforth promote actions related with trade facilitation, including paperless trade in cross-border transactions.

Some other examples are: the policies and provisions to promote the use and exploitation of information technology, digital government, Information and Communication Technologies, and Information Security in the Federal Public Administration (DOF 09/06/2021); the creation of the VUCEM (DOF 01/11/2011); the interoperability and open data scheme of the federal government (DOF 11/06/2011); Administrative Facilities in Customs Matters and Foreign Trade which provide for the review and automation of processes and even the subsequent creation of a Single Window (DOF 03/31/2008); the Comprehensive Information System of Government Registers (DOF 01/12/2006), and the Ministerial Commission for the Development of Electronic Government (DOF 12/09/2005), among others.

A1.2 Does it include all community partners/stakeholders (government and private sector)?

Yes. The NTFC includes the participation of 11 Secretaries involved in activities and regulations associated with foreign trade.

Regarding the private sector, participation is partial, since the NTFC includes the participation with voice, but without vote of the main representatives of Associations and Chambers of the private sector, but only when they are invited to the sessions.

The NTFC has an Internet consultation webpage (https://www.gob.mx/comitefacilitacioncomercio) in which it allows any interested party to send comments or suggestions to said Committee, however during the interviews, some users mentioned that in this portal there is no information on the follow-up or result of the analysis of the comments or suggestions, as well as there is no information on an agenda or accountability of the NTFC.
On the other hand, the Ministerial Commission of the Mexican Digital Window or also known as VUCEM, brings together the different agencies involved in foreign trade procedures, but does not contemplate the active participation of the private sector, unless in particular matters they are invited to the sessions.

A1.3 Who chairs this governance structure?

The NTFC is chaired by the Head of the SE, who may be replaced by the Head of the Undersecretary of Foreign Trade (source: art 2 DOF 01/22/2021)

The objective of the NTFC is to facilitate coordination between the agencies, entities of the Federal Public Administration and autonomous constitutional bodies that, within the scope of their different powers, participate in the regulation of programmes linked to foreign trade (source: art 1 and 5 DOF 01/22/2021).

2. Level of automation

It is not feasible for an organization or agency to consider implementing paperless trade systems without the ability to process electronic documents, information or data, let alone subsequent cross-border data exchange.

A2.1.1.1 Has your country implemented electronic customs (and other services that facilitate customs declarations in an electronic format)?

If yes, please answer A2.1.1.1 – A2.1.1.6.

Yes. The LA recognizes that customs declarations must be transmitted through the SEA. Source art. 6 of the LA.

This System is defined by national legislation as: “the different processes that are carried out electronically through the Mexican foreign trade digital window, the comprehensive automated customs system and the other electronic systems that the Customs Authority determines to use to exercise its faculties.”

Customs declarations are processed through the SEA, where the digital information and documentation is integrated, validating the data online and speeding up registration times.

(LA consulted in May 2022, at https://www.diputados.gob.mx/LeyesBiblio/pdf/LAdua.pdf)

A2.1.1.1 Does it have the capability to receive, process and issue documents electronically?

Yes. The SEA allows the reception, processing, validation of information and response necessary for the clearance of the goods.

This system (SEA) is not only limited to the processing of customs declarations, but also to the receipt of advance information prior to arrival, the transmission of information and documents attached to the customs declaration, the traceability of the stages of the import process, export and transit practically in real time, as well as procedures, notices, reports and requests required to importers, exporters and customs users.

Additionally, it allows the authorities to obtain relevant information for the management of risk analysis of customs operations.
A2.1.1.2 Is it integrated with an electronic payment system?

Yes. The national legislation provides for the payment of taxes and customs duties through the PECE mechanism, which is an automated system that allows with the capture line (bank instructions) provided by the SEA, to make the payment associated with a customs declaration.

Most foreign trade operations use this automated payment system.

However, additionally, customs duty payments can be made through electronic banking and the SEA can electronically validate the payment.

Customs legislation allows the payment of duties, taxes, fines and other foreign trade charges through the referenced deposit (capture line), to the banking institutions authorized to do so, which are basically the institutions with the biggest coverage within the country.

Payment is made through the different means of payment offered by the banking institution, such as the use of web portals and applications of the banking institution, through the electronic transfer of funds, payment at bank offices, checks, debit and credit card.

Payment through the PECE, as well as through banking institutions, does not require the user to present paper documentation proving payment.

Payment can be made from the bank accounts of the importer/exporter or from the customs broker that represents him.

There are some special requirements for the payment of low value goods, as well as when they are regulated by mechanisms to prevent money laundering.

A2.1.1.3 Does it have the ability to authenticate users electronically?

Yes. Customs and tax legislation provides that in order to access the SEA, the user or their authorized representative must identify themselves through an e.signature.

Taxpayers are required to obtain e.signature to comply with their tax obligations.

By using the e.signature as a mean of authentication, the SEA as well as other systems such as the VUCEM use the RFC associated with the electronic signature certificate, to validate its validity period, active and not revoked status.

The customs declarations generated and transmitted to the SEA must be signed with e.signature by the user or its authorized representative.

A2.1.1.4 Does it ensure data/document security?

Yes. The SEA has robust information security protocols, which on the one hand prevent access to unauthenticated users, and on the other hand, prevent malicious attacks from being carried out that put the integrity of the information and the execution of the system at risk.

Source interview ANAM and SAT.

A2.1.1.5 What is the percentage of trade covered under this system?

High (70%-100%). All customs points, including their sections and secondary offices, have access to the SEA.

The SEA admits the transmission of the customs declaration for processing, covering practically all foreign trade operations.

In addition to the above, the development and integration of functionalities in the SEA is permanent and it is relevant to say that the circumstances derived from the treatment of the SARS Covid-19 Pandemic has further promoted the integration of new electronic procedures into the system.
A2.1.1.6 Are community partners/stakeholders connected electronically?

Yes. Importers, exporters and their representatives such as customs brokers are connected to the SEA through the data pre-validation companies. Some service providers such as national and international carriers, as well as port terminals and warehouses, can also connect to the SEA to carry out procedures and notifications related to the cross-border trade of goods.

In both cases, when it comes to formalities and procedures prior to the clearance of goods, as well as regarding the transmission of information in advance of cargo arrival, the VUCEM is used as a means to transmit information, request and receive permits, licenses and authorizations.

In general, regulatory and border control agencies are connected to the SEA through the VUCEM. The integration of procedures in the VUCEM is a gradual and permanent work, for which there are controls of some agencies that have not yet been integrated.

A2.1.2 Has your country implemented electronic port systems (including air, sea, road, rail and inland ports)?

If yes, please answer A2.1.2.1 – A2.1.2.6.

Partially. In the case of maritime ports, through the ASIPONA (Port Administration) of the main ports of the country, the PIS system has been developed, which being first tested on Manzanillo Port, but with the expectation of reproducing said system in the 17 International Ports within the country.

The PIS is a Comprehensive Technological Platform developed by SEMAR to strengthen the security of the National Port System, through digitization and systematization of operational and administrative processes, promoting the collection efficiency of Port Administrators.

In other words, it focuses on issues of security, technology, logistics, collection, coordination with other authorities and interaction with the port community.

It is a multi-platform, scalable, secure, 24-hour managed service, adaptable and modular information system.

It allows the validation of data by other authorities and uses security mechanisms and artificial intelligence, in such a way that traceability can be given to people, vehicles and cargo inside the port area.

https://puertointeligenteseguro.com.mx/#/inicio

A2.1.2.1 Does it have the ability to receive, process and issue documents electronically?

Yes. The PIS is capable of receiving information from users, processing it and issuing a result electronically.

Source interview Manzanillo Port Authority

A2.1.2.2 Is it integrated with an electronic payment system?

Yes. The PIS has its own system with a link to Banxico’s payment system through which direct payment of the different duties can be made.

Additionally, the PIS recognizes payments made in commercial banks through capture lines (bank instructions).

Source interview Manzanillo Port Authority

A2.1.2.3 Does it have the ability to authenticate users electronically?
Yes. To be a user of the PIS, you must have a registry, which crosschecks information with the RFC and with the national population registry.

To access the system, the registered user must identify himself with a password.

Source interview Manzanillo Port Authority

A2.1.2.4 Does it ensure data/documents security?

Yes. The PIS has adequate security protocols for data protection, which on the one hand prevents access to unauthenticated users, and on the other hand, prevents malicious attacks from being carried out that put the integrity of the information and system execution at risk.

Source interview Manzanillo Port Authority

A2.1.2.5 What is the percentage of trade covered by these systems?

The PIS covers 100% of the cargo that enters a certain seaport.

Source interview Manzanillo Port Authority

A2.1.2.6 Are community partners/stakeholders connected to it electronically?

Yes. The Port community as users and service providers need to be registered and by that registry interact in PIS.

A2.1.3 Has your country implemented electronic licenses, electronic permits and electronic certificates? (Please fill out the appendix for this question).

Yes. See appendix

A2.1.4 Has your country implemented any cross-border trade systems other than those specified above?

If yes, answer A2.1.4.1 – A2.1.4.5.

Yes. There are adjacent systems that are sometimes complementary to the rest of the systems related to cross-border trade.

However, no trade operations are carried out in these systems.

Some examples are: the system of the tax authorities to create and manage the e-signature of each taxpayer, including importers and exporters, as well as that of their representatives or intermediaries (customs brokers, carriers, warehouses, etc.)

Another example is the system that allow the exchange of information with third countries authorities, whether for trade or tax purposes, which feed national risk analysis systems with information.

Other examples of systems that assist the customs function in foreign trade operations is the MATCE which refers to the processing of customs declarations, risk analysis and determine the free inspection or documentary or physical inspection of the goods during clearance process and prior to its release.

Also the PITA, whose purpose is the total automation of the import, export and transit process that is carried out in the customs offices, through the use of technology that allows reducing the contact of importers, carriers and customs brokers with customs officials, while simplifying the customs clearance process, improving logistics operation times within customs, streamlining the review process with the use of technology, as well as improving data analytics, security and intelligence that expand operational supervision at customs.

Another additional example is the SOIA through which both internal users of the tax and customs agency, as well as external users, importers, exporters, customs brokers, warehouses, carriers, other service providers, as well as other government agencies can carry out consultations
of foreign trade operations, even in real time, which includes the status of customs declarations, consultation of cargo manifests, bills of lading, advance information prior to arrival, monitoring of containers, reception of cargo in warehouses, etc.

All three MATCE, PITA and SOIA Systems are part of the SEA.


A2.1.4.1 Does it have the ability to receive, process and issue documents electronically?

Yes, but not directly related to carrying out a cross-border business procedure or process. Electronic documents related to cross-border trade procedures and processes are issued at the SEA and at the VUCEM.

A2.1.4.2 Is it integrated with an electronic payment system?

The nature of the aforementioned systems does not require the payment of procedures or services.

A2.1.4.3 Does it have the capability to authenticate users electronically?

Yes. Normally through the use of the e.signature, but also through access keys and passwords created to consult the information, according to each system.

A2.1.4.4 Does it ensure data/document security?

Yes. The systems managed directly by the customs and tax authorities have high standards and information security protocols. The systems managed by financial institutions are also distinguished by having high security standards.

A2.1.4.5 What is the percentage of trade covered under these systems?

The nature of the aforementioned systems is not intended for the direct performance of procedures or commercial operations, but rather they are complementary to the SEA and VUCEM.

However, regarding the system that allows creating and managing the e.signature for taxpayers, it does not have any limit to generate an e.signature for any interested party that meets the requirements to generate an e.signature.

A2.1.5 What is your country's target timeline to cover all trade transactions through these systems (ie, an electronic customs systems (i.e., e-customs, e-port, e-certificates, e-licenses, e-permits and others)?

The SEA has been successfully implemented at the national level, thus covering practically all trade transactions (except for some special or low-value procedures). Notwithstanding the foregoing, the SEA is in permanent development and improvement in order to cover increasingly more stages of customs activity and not only those related to the transmission, acceptance, result and release of goods, such as the procedures to carry out customs operations like the registry to qualify as an importer, registry of customs brokers representing importers, registry of carriers authorized to transport goods within customs, information transmission systems in real time with fiscal warehouses (under customs control). But it also permanently seeks to technify the customs function, a clear example is the PITA project that pursues through the use of technology, to reduce human interaction in custom procedures that are carried out within customs (declarations reading systems, surveillance cameras, automated locks, etc.)

A2.2 Has a single window system been implemented in your country to expedite cargo movement/clearance and to facilitate the international trade supply chain?
If yes, please answer A2.2.1 – A2.2.4. If no, please answer A2.2.5.

Yes. It has been in operation since June 2012. It was gradually implemented, including procedures from different agencies in 3 phases. It currently integrates the procedures related to the control agencies, permits and licenses of the different agencies.

It is interconnected with the SEA adding additional functionalities, procedures, authorizations and notices related to customs operations.

Currently it also interoperates with other trade partner platforms such as some preferential origin certificates.

It is permanently in evolution and simplification to integrate more functionalities and procedures related to trade activity.

VUCEM portal source, consulted in May 2022, https://www.ventanillaunica.gob.mx

A2.2.1 How does it receive data electronically, i.e., what kind of user interface and communication channel is used (Internet-based network or dedicated/secured private network)?

The single window has a dedicated private network to communicate between government agencies.

To communicate with external users, it uses a multiplatform Internet-based network, that is, web services such as MAC, iOS, Android, Chrome, Firefox.

By allowing access via web services, it is possible to send information massively and automatically interact between user systems and the VUCEM without human intervention in each operation.

Additionally, by using a multi-platform base, it allows access via desktop computers, but also access via mobile devices, tablets and Smartphones as it does not depend on browser versions or configurations, machines or operating systems.

This also allows developing a more intuitive navigation oriented to the importer/exporter user.

Since July 2019, the service is also available through a mobile application.

Source interview with ANAM and SAT.

A2.2.2 Does it support a paperless environment?

Yes. The single window allows electronic reception, analysis and response, without the need to submit paper documents to track applications.

Once entered into the VUCEM through the e.signature, it is allowed to add documents (PDF), visible to the authority that issues the acceptance or rejection of the request.

The procedures and documents have their own digital seals, prepared and/or digitally signed. This information is shared with the SEA for different process validations.

Source interview with ANAM and SAT.

A2.2.3 How many agencies are connected to the single window? Please list them.

10 government agencies and 2 regulatory bodies: the SHCP, which includes the tax agency and the customs agency; SE; SADER; SEMARNAT; the SEDENA; COFEPRIS; the SENER; PROFEPa; the INBA; the INAH and two regulatory bodies, AMECafe and the CRT.

VUCEM portal source, consulted in May 2022, https://www.ventanillaunica.gob.mx

A2.2.4 Who operates this system?

The SHCP through its tax and customs bodies.

A2.2.5 What is your country’s future plan and the targeted timeline to implement a single window system?

N/A
A3. Information and communications technology infrastructure for paperless trade

Good information and communications technology (ICT) infrastructure is an essential element of an efficient paperless trade system. The primary function of the network is to serve as a secure channel for information exchange between the participating parties. The lack of Internet service could be one of the obstacles to full implementation of a trade facilitation system when the business process is incomplete due to missing parties in network connectivity.

There are various options of network, such as multiprotocol label switching (MLPS), Internet protocol (IP), virtual private network (VPN), and secure hypertext transfer protocol (HTTP). Regardless of the choice of options, the network should allow connectivity and interoperability between heterogeneous platforms and support various protocols and exchange paradigms within a secure operating environment. It is not uncommon that different stakeholders have different levels of computerization and systems on different platforms. To ease integration, interfacing and interoperability between these systems, a single window system which connects them needs to support interface with heterogeneous systems.

Putting in place a strategic plan to address ICT infrastructure issues and a disaster recovery plan should be part of a business continuity plan. It is essential to ensure the effects of operating disruptions are properly mitigated.

A3.1 Is network service available at all border posts, including ports, airports and cargo clearance facilities, in your country?

If not, what is your country's future plan and targeted timeline to connect the stakeholders of the logistic and the supply chain including controlling agencies?

Yes, the SEA and the VUCEM have their own infrastructure and connection to other agencies and organizations through dedicated private networks, and it is available at all points of entry and exit of goods.

There are users who can connect directly to these private networks through dedicated links. These users are, for example, the data pre-validators companies and fiscal warehouses (under customs control), but also representatives of international carriers.

Importers and exporters, as well as customs brokers, in turn connect with data pre-validation companies through the Internet with secure schemes.

The national legislation provides that any customs declaration prior to being presented to the authority must have been pre-validated, that is, it is a prior validation to confirm that said electronic declaration is in accordance with the syntactic, cataloging, structural and normative criteria, which guarantees that it is adequately transmitted to the SEA for its reception and analysis.

The data pre-validation companies are authorized by the customs authority and must comply with high technological standards to assimilate the constant regulatory changes into their systems. These companies connect directly to the private network through dedicated links.

(Art 16-A of the LA consulted in May 2022, at https://www.diputados.gob.mx/LeyesBiblio/pdf/LAdua.pdf)

A3.2 Are any of the systems mentioned in A2.1, “Electronic systems”, connected via a common or single network?

If yes, please answer A3.2.1 – A3.2.6.

Yes. The SEA and the VUCEM are developed on the basis of dedicated private networks that provide services to each agency and body involved with these systems.
Source interview with ANAM and SAT

A3.2.1 Is it integrated and secure?
Yes. As it is a network for exclusive and proprietary use, the communication channel is secure. Most connections are made through HTTPS/SSL, and authentication is established through e-signature and public keys are shared, using encryption mechanisms. The equipment used in the customs of the country is also encrypted equipment.

Source interview with ANAM and SAT.

A3.2.2 Is it able to provide a high availability rate of minimum 99.9 percent in terms of service level agreement for trade data exchange in paperless environment?
Yes. Currently, the availability metric of the different systems is greater than 99.9 percent.
Both the network infrastructure and the paperless trade system, being based on dedicated private networks, have a high availability rate.
Additionally, access to each node through web services also has a high availability rate (SLA) as there is full competition in the country from Internet network providers.

Source interview with ANAM and SAT.

A3.2.3 Is it able to support various communication protocols?
Yes. The single window is based on multiplatform communication that facilitates access to system users.
It can be accessed via webpage, web services and supports flat file transmission.

Source interview with ANAM and SAT.

A3.2.4 Is it able to provide secure information exchanges that ensure confidentiality and data integrity?
Yes. The connections use security certificates, to allow the exchange of information; configuration tools are used that add different levels of security, depending on the abstraction layer.

Source interview with ANAM and SAT.

A3.2.5 Is it designed to take into account future requirements, such as device and technology upgrades?
Yes, because it is a modular system that allows device and technology updates to be incorporated, as well as any future requirements or needs.
Additionally, the VUCEM has a Mobile APP, through which applicants can check the status of their applications online, as well as if they have any information requirements pending response. The system signals with colors (traffic light) the remaining time of attention.
The applicant can enter applications through their phone or tablet.

Source interview with ANAM and SAT.

A3.2.6 If any of the above (A3.2.1 – A3.2.5) is lacking, what is your country’s future plan to upgrade it and what is the targeted timeline?
N/A

A3.3 Is the single window system, if implemented, interoperable with other systems?
Yes. In the VUCEM, all the agencies relevant to foreign trade converge and it is interoperable with the SEA.
It also consults other systems to execute validations in different processes, for example, the e-signature with the taxpayer identification system and the national population registry, among others.

Source interview with the SE, ANAM and SAT.

A3.3.1 Is it able of integrate, interface and/or interoperate with other existing heterogeneous systems (i.e., with systems on a different platform)?

Yes. It is capable of integrating, interacting, and interoperating with other heterogeneous systems. Currently the SEA and VUCEM modules are developed on different platforms and can interact with other platforms.

Source interview with the SE, ANAM and SAT.

A3.3.2 If it supports (i.e., is interoperable with) heterogeneous systems, what is the method of integration /interface?

Web services in general.

Specifically TCP/IP, HTTP, SSL, Messaging Services, SOAP, JSON, MQIPT, among others.

Source interview with ANAM and SAT.

A3.4 Strategic plan to address ICT infrastructure issues

A3.4.1 Does your country have a strategic plan to address ICT infrastructure issues (for paperless trade)?

The SAT has current contracts for infrastructure processing, maintenance, telecommunications, storage, licensing, and security enabling components, which allows authorities to have functions permanently focused on the development and care of the technological infrastructure that supports the different procedures of import, export and transit of goods.

No specific Plan related to paperless trade has been identified. Although there are public policy measures clearly focused on the development of a digital government, such as the Agreement by which the policies and provisions are issued to promote the use and exploitation of information technology, digital government, ICT, and Security of Information in the Federal Public Administration (DOF 09/06/2021),

Source interview with ANAM and SAT.

A3.4.2 If not, what is your country’s future plan and targeted timeline to establish a strategic plan?

N/A

A3.5 Disaster recovery

A3.5.1 Is there a policy for the establishment of a disaster recovery plan at the agency level?

Yes. The VUCEM, the SEA, the other customs systems, the PITA and the MATCE have a disaster recovery plan.

Source interview with ANAM and SAT.

A3.5.1.1 If yes, please indicate the level of implementation for the disaster recovery plan (specify the percentage of agencies).

Regarding the systems mentioned in A3.5.1, it is 100% implemented.

Source interview with ANAM and SAT.

A3.5.2 Is there a policy for the establishment of a disaster recovery plan at the national level?

Yes, it is national.

The Federal Government requires the implementation of the MAAGTICSI, which establishes
the guidelines for disaster recovery. Each government agency must align its disaster recovery plan based on these guidelines, as well as relying on best practices and market standards.

https://www.gob.mx/cni/documentos/manual-administrativo-de-aplicacion-general-en-materia-de-tecnologias-de-la-informacion

A3.5.2.1 If yes, please indicate whether the disaster recovery plan is implemented at the national level.

Yes.

Source interview with ANAM and SAT.

A3.5.3 If there is no policy for the establishment of a disaster recovery plan, what is your country’s future plan and targeted timeline to set up a disaster recovery plan?

N/A

A3.6 Does your country have a business continuity plan for paperless business systems?

Yes. The planning of the business continuity plan is based on the guidelines established in the MAAGTICSI.

Source interview with ANAM and SAT.

A3.6.1 If yes, is it regularly tested at an established frequency?

Yes. Once a year.

Source interview with ANAM and SAT.

A3.6.2 If not, what is your country’s future plan and targeted timeline to develop a business continuity plan?

N/A

A4. Security

The confidence to replace paper-based document with electronic information or data depends to an extent on the security of the information technology system that manages electronic data.

A4.1 Is there an information technology security policy for your country?

If yes, please specify.

Yes. The country has a vast regulatory framework in terms of policies on the use of technology, including security aspects.

According to the different regulatory levels, there are legal provisions in different legal instruments, but in the case of technological platforms in charge of the different government agencies, the Agreement by which the policies and provisions are issued to promote the use and exploitation of information technology must be followed, digital government, ICT, and Information Security in the Federal Public Administration (DOF 09/06/2021), in such a way as to guarantee certainty in the continuity of the operation and the permanence and integrity of the institutional information.

Source interview with ANAM and SAT.

A4.2 If any of the systems mentioned in A2.1, “Electronic systems” have been implemented, what kind of security measures are in place to protect them from unauthorized access?
SAT has a group specialized in information security.

In each layer of the system, possible attacks are automatically monitored, and the necessary actions are taken to apply the different configured rules; each block of information or messages that are exchanged has levels of authentication and encryption.

These measures are in line with international information security standards.

Source interview with ANAM and SAT.

A4.3 What type of authentication mechanism is used to ensure the security of information transmitted electronically?

Authentication is used by username and password and to carry out any action other than a simple query of information, authentication is required through an e-signature administered by the Tax Agency of the country.

In it, SSL certificates, public key certificate, passwords, smart cards are used.

Source interview with ANAM and SAT.

A4.4 What type of communication protocol is used for electronic data interchange currently?

Web services or web portal with authentication using the e-signature or with sockets with a security scheme and only through secure links.

TCP/IP, HTTPS, SMTP.

Source interview with ANAM and SAT.

A4.5 What is your country’s future plan and targeted timeline to enhance the security level in A4.1 and A4.2?

Continue with the continuous improvement process, aligned with international information security standards.

A5. Business process-reengineering

Failure to review and re-engineer a manual procedure/process in the development of an electronic system will often lead to inefficiency of the system. It will jeopardize integration/interfacing with other systems if business processes across the board are not streamlined to ensure the seamless flow of information. The implementation of an electronic system often begins with parallels processing of paper documents, but the ultimate goal is to discontinue the usage of paper documents.

A5.1 Have the stakeholders in your country conducted re-engineering and streamlining to support paperless trade or a national single window:

Yes. The different agencies participating in the VUCEM have carried out the analysis of each of their procedures in commercial trade matters and as a result, requirements have been simplified, the main one being related to the identity and authentication of the person who promotes the procedure, which has been simplified with the use of the e-signature.

Source interview with the SE, ANAM and SAT.

A5.1.1 At the agency level? (Please list them.)

The Secretaries participating in the VUCEM are:

10 government agencies and 2 regulatory bodies: the SHCP, which includes the tax agency and the customs agency; SE; SADER; SEMARNAT; the SEDENA; the COFEPRIS); the SENER; PROFEPA; INBAL; the INAH and two regulatory bodies, the AMECAFE and the CRT.
A5.1.2 At the national level?

Yes. The VUCEM is the single window of issuance of licenses, authorizations and permits necessary for the clearance of goods, so the simplification and reengineering business processes was carried out for each of the agencies involved with respect to the most relevant procedures to cover almost all of them.

A5.2 Has your country implemented any paperless trade transactions?

Yes.

A5.2.1 If yes, what kind of transactions have been implemented and what typed of electronic documents are exchanged?

At the VUCEM, applicants can enter their procedures in www.ventanillaunica.gob.mx, and for some procedures, through web services, it is allowed to attach PDF documents to the application related to the requirements requested by each procedure (identifications, receipts, third-party opinions, invoices, notices, etc.).

The documents issued by the authority remain in the VUCEM for download, some are sent by email, and for authorities from other countries, they are sent in XML and EDI messages.

A5.2.2 If not, what is your country’s future plan and targeted timeline to do away with paper-based documents?

N/A

A6. Data harmonization and standardization

Data compatibility is one of the main issues that needs to be addressed in various connectivity projects in and around the region. Thus, if data harmonization and standardization can be carried out as soon as possible, seamless data exchange will be achieved without compatibility issues especially if it is based on international standards.

A6.1 Has data harmonization and standardization been conducted for the data elements for paperless trade:

Yes. The data elements are partially based on international standards and are mostly compatible with those standards.

Source interview with the SE, ANAM and SAT.

A6.1.1 At the agency level?

Yes. With the coordination of the SAT. The implementation of the VUCEM was carried out in 3 phases, in which the different government agencies involved with the regulation and procedures for cross-border trade were gradually added.

Source interview with the SE, ANAM and SAT.

A6.1.2 At the national level?

Yes.

A6.1.3 If yes, has any data model been adopted and is it based on international standards/guidelines such as the United Nations Rules for Electronic Data Interchange for Administration, Commerce and Transport, United Nations Code for Trade and Transport Locations, Core Component Technical Specification, core component library and/or the World Customs Organization Data Model?
Yes. The VUCEM was designed under the different recommendations for the development of single windows, international standards, specifically: WCO Data Model v.3.0, UN/EDIFACT, UN/CEFACT and best international practices, so the information is harmonized and in each new implementation compliance with each of the standards is ensured.

Now, since interoperability with other countries is done through VUCEM, the information received from the SEA is transformed to comply with said standards.

Source interview with the SE, ANAM and SAT.

A7. Capacity-building

Capacity-building is an ongoing activity in most projects but is important particularly at the outset to ensure stakeholders have a common understanding of the project and their respective roles and responsibilities in making it a success.

A7.1 Has your country conducted any awareness programme and/or workshop to ensure the stakeholders, including government agencies and traders, have a common understanding of paperless trade, as well as their respective roles in help realize cross-border paperless trade data exchange?

Yes. The SE, through the NTFC, coordinates the activities with the different federal and private government agencies.

The VUCEM conducts awareness and understanding courses on its use, for officials from the different government agencies, and these in turn, and according to the scope of their competence, raise awareness among private sectors.

On the VUCEM web portal you will find useful information for each procedure, user manuals, as well as e-learning tutorials.

Some private actors have indicated the lack of permanent programmes to sensitize the community, to improve a common understanding, but above all with sufficient anticipation before the implementation of new procedures or processes in the VUCEM.

Source interview with SE.

A7.2 Do the stakeholders of cross-border trade in your country fully understand the single window approach?

Partially. The systems are in common and routine use. A large percentage of cross-border operations and therefore of customs procedures, as well as procedures prior to import, export and transit, are carried out through data pre-validation companies, customs brokers and/or representatives of importers and exporters; therefore, this reduces the dispersion of users who must be aware and prepared to carry out the procedures, and on the contrary, it concentrates in some, the experience and scalability to carry out the interaction with the system efficiently.

Given the above, there are certain stakeholders who themselves do not fully understand the approach to electronic systems that enable paperless trade.

A7.3 Has your country conducted any awareness programme or workshop on single window?

Yes. The VUCEM conducts awareness and understanding courses on its use, for officials from the different government agencies, and these in turn, and according to the scope of their competence, raise awareness among private sectors.

The VUCEM web portal includes infographics, tutorials, e-learning and manuals on the different processes.
A7.4 What is your country’s future plan and timeline for enhance capacity-building for cross-border paperless trade data exchange?

Continue with the adequate dissemination of each of the new processes and improvements to the system.

A8. Other matters
A8.1 Computer literacy
A8.1.1 What is the level of computer literacy in the trading community in your country as a whole to support electronic transactions? (70–100% = high, 20–69% = medium, 0–19% = low)

High (70-100%).

In 1993 the participation of customs users (importers/exporters) in customs procedures in the country began to become more technical with the obligation to transmit the customs declaration electronically SAAI, in such a way that users, systems and communication between users and customs authorities has evolved over these almost 30 years, but precisely because of this long history, users are currently very receptive to the use of information and communication technologies in their daily operations.

A8.1.2 Are they ready to accept changes arising from re-engineered business process in implementing paperless trade systems?

Yes. As a result of the interviews with various users and private sector trade operators, in general they are very willing to accept technological changes that facilitate the operation in an integral way, that is, not only facilitate the controls and functions of the authorities but also that have a benefit in managing user operations.

A8.2 Budget constraints
A8.2.1 Does your country encounter budget constraints in implementing paperless trade systems?

Paperless trade initiatives are self-financed, that is, they are carried out with a government budget based on cost recovery, to the extent that the tax and customs authority is in charge of carrying out directly and indirectly (contracted) the development of the systems through their own budget, however, the legislation provides resources to said authorities from the flow of foreign trade operations by allocating a portion of what is collected as duties by customs services, as well as by granting certain authorizations and their renewals.

A8.2.2 If yes, what is your country’s future plan to overcome this financial constraint and what is the targeted timeline?

N/A

B. National status towards cross-border data exchange

Ideally, all stakeholders of cross-border trade should be on board the cross-border data exchange project to bring forth full benefits. In this respect, it is important that their information technology systems support cross-border data exchange. A single window system is meant to connect systems of the stakeholders via a single point of connectivity providing more efficient integration/interfacing. Likewise, a national single window, which acts as the national single point of connectivity, will ease integration/interfacing for cross-border data exchange with dialogue partners.

B1. Electronic systems

B1.1 If any of the systems mentioned in A2.1, “Electronic systems” have been implemented, what percentage support cross-border data exchange?
Low. By concentrating the procedures in the SEA and the VUCEM, and that both have been developed with international standards, it would be feasible to interoperate with commercial partners that have similar data models and also meet other conditions for the transmission and exchange of information.

Currently only some documents are exchanged with other business partners, in an electronic environment, so at the moment the percentage is low.

Source interview with the SE, ANAM and SAT.

**B2. Single window system**

B2.1 If a single window system mentioned in A2.2 has been implemented, does it support cross-border data exchange?

Yes, limited to some documents and on the basis of reciprocity with trade partners.

(https://www.ventanillaunica.gob.mx/vucem/interoperabilidad.html)

B2.2 If yes, does it function as the national single window, which act as the national single point of connectivity for any cross-border data exchange with other dialogue partners?

Yes. The different stakeholders of foreign trade operations converge in the VUCEM.

Source interview with SE.

When business process re-engineering is done on domestic procedures/processes for paperless transactions at the national level, it has to take into consideration requirements for cross-border data exchange whereby paper documents will not be exchanged across borders.

**B3. Business process-reengineering**

B3.1 If your country has implemented paperless transactions at the national level, as mentioned in A5.2, has re-engineering and streamlining of business processes been conducted to support cross-border data exchange?

Yes. The procedures in the VUCEM are mainly focused on the national level, taking into account best international practices, so there may be a certain degree of harmonization with other trade partners. If that is the case, business process re-engineering for the purpose of cross-border data exchange may be simpler and focus only on modifying issuance documents.

Source interview with the SE, ANAM and SAT.

B3.2 If not, what is your country’s future plan and targeted timeline to develop a regional business process for cross-border data exchange?

There are currently several coordinated efforts with different trade partners, it being relevant to mention that within the framework of the PA there are commitments and permanent working groups to implement the interoperability of the single windows of each of the member countries of said PA.

Source interview with SE.

If data harmonization and standardization of data is done based on international standards which are adopted by the most organizations or countries of the region, it will minimize changes in the national system process and database structure when implementing cross-border data exchange electronically.

**B4. Data harmonization and standardization**

B4.1 Has data harmonization and standardization been conducted based on international standards?
standards/guidelines, such as the United Nations Rules for Electronic Data Interchange for Administration, Commerce and Transport, United Nations Code for Trade and Transport Locations, single window recommendation of the United Nations Center for Trade Facilitation and Electronic Business, to support cross-border paperless trade data exchange?

Yes.

Source interview with ANAM and SAT.

B4.2 If not, what is your country’s future plan and targeted timeline to minimize changes in your system process and database structure for cross-border data exchange electronically?

N/A

B5. International transit

The issues transit traders face under the current international transit procedure in many countries in the region include the following:

i) Repetitive submission of a customs transit declaration at entry of every country of transit.

ii) A security document needs to be registered at every country of transit.

iii) To address the above issues, the following could be considered:

iv) (a) A single Customs transit declaration to be valid for the whole transit route: data and information of the customs transit declaration could be submitted and approved at the country of departure and shared across borders with the countries of transit and the country of destination.

v) (b) A single guarantee to be valid for the whole transit route: relevant data/information of the guarantee could be registered at the country of departure and shared cross-borders with the countries of transit and the country of destination.

If single stop inspection is done by all controlling agencies in the exporting country and the data of the inspection results are shared with the importing country, it would definitely expedite cargo.

B5.1 Has the country implemented any paperless customs declaration for national transit procedures (inbound transit, outbound transit, inland transit)?

Yes. In general, all customs declarations can be transmitted to the SEA. There are some exceptions for practicality, such as declarations of international passengers arriving in the country.

B5.2 Has the country implemented a paperless customs declaration for international transit?

Yes. In general, all customs declarations can be transmitted to the SEA. There are some exceptions for practicality, such as declarations of international passengers arriving in the country.

B5.2.1 If yes, is the customs regime in your country able to support the implementation of a single customs transit declaration and single guarantee valid for the international transit route taking into consideration the following:

To agree on a guarantee registered at the country of departure, covering the highest duty rate of each country in the transit route, to be valid and accepted throughout the transit route?

To agree on a regional/subregional format and content of the single guarantee?

It is not foreseen in the national regulation.

Mexico exempted the presentation of guarantees in the case of national and international customs transit procedures in its territory, in accordance with the Decree granting Administrative
Facilities in Customs and Foreign Trade Matters (DOF 31/03/2008).

B5.2.2 If not, what is your country's future plan and targeted timeline to address this issue?

No information provided.

B5.3 Has your country implemented a one-stop inspection system by all controlling agencies at the time of exit/export?

Partially. The country’s customs have a comprehensive system and at the moment the SADER uses the VUCEM to carry out its inspection tasks, which is a requirement for the export of goods, the result of the inspection is part of the information that is sent electronically to the destination country.

Additionally, and jointly with foreign authorities, inspection programmes are carried out, such as the case of the Unified Cargo Processing with CBP-USA.


B5.3.1 If yes, are the inspection results shared with the importing country?

Only when it is carried out jointly with that country.

B5.4 If not, is there any intention to implement a one-stop inspection and what is the timeline?

No information provided.

B6. awareness programme

Awareness programmes are important for stakeholders to understand how cross-border data exchange could be carried out to reduce their anxiety and prepare them to address any issues that may arise.

If a country lacks the expertise to carry business process analysis, data harmonization and simplification, system development, project management, etc., it may look for technical assistance from external parties.

B6.1 Does your country have an awareness programme (for example, capacity-building, training, workshops) for stakeholders to have a better understanding of the following issues?

Yes.

Source interview with SE.

B6.1.1 How could cross-border data exchange be implemented?

Yes. The VUCEM, through its web page, provides access to current information, including news about new procedures and user manuals.

www.ventanillaunica.gob.mx

B6.1.2 Potential business transactions and documents for cross-border data exchange?

Yes. Both the VUCEM and the SNICE, through their web page, provide access to up-to-date information on the procedures, including those related to interoperability with other single windows. Likewise, through the institutional channels of communication and spokesperson, the different government agencies publicize the new procedures related to the single window.

www.ventanillaunica.gob.mx

www.snice.gob.mx
B6.1.3 Methods of identifying inhibitors that need to be addressed?

No information provided.

B6.2 If your country has not conducted any awareness and capacity-building programmes related to B6.1.1 – B6.1.3, what is your country's future plan and targeted timeline to conduct an awareness programme?

N/A

B6.3 Does your country have the capacity to carry out the following: i) business process analysis; ii) data harmonization and simplification; iii) systems development; and iv) project management?

Yes.

B7. Other matters

Some countries which are ready for cross-border data exchange may not be willing to participate in a pilot project. One of the reasons is a lack of trust in the economic operators of their dialogue partners. If your economic operators are able to comply with the authorized economic operator scheme and are mutually recognized by their trading partners, it will expedite cross-border data exchange.

B7.1 Authorized Economic Operator (AEO)

B7.1.1 In general, what is the level of compliance of traders in your country (high, medium or low)?

Medium.

B7.1.2 Has the authorized economic operator scheme been implemented in your country?

Yes. There are several programmes that assess the level of compliance of stakeholders. The most relevant is the AEO based on the SAFE framework of the WCO.

In the general certification scheme, it can be accessed by: importers and exporters, warehousingmen, carriers, customs brokers, industrial parks, bonded warehouses and strategic bonded warehouses. Importers and exporters have various modalities, marketers, manufacturers and sectors.

Source interview with ANAM and SAT.

B7.1.2.1 If yes, how extensive is the implementation in terms of the percentage of economic operators registered in the scheme?

The percentage is low based on the number of authorized companies with respect to the total number of active importing companies, but in terms of volume of operations, companies that have AEO authorization concentrate a significant volume of trade.

Source interview with ANAM and SAT.

B7.1.3 Is your country ready to sign any mutual recognition agreements for authorized economic operators with dialogue partners?

Yes. Mexico has signed an OAS MRA in the SAFE framework, with:

- Korea (March 2014)
- United States (October 2014)
- Canada (May 2016)
- Costa Rica (April 2018)
AP (Chile, Colombia, Mexico and Peru) – 1st plurilateral MRA (July 2018)
Israel (April 2019)
Hong Kong (March-December 2020)
Brazil (April-May 2021)

There are several open negotiations or talks with other trade partners, as is the case with the MERCOSUR trade bloc.

Source interview with ANAM and SAT.

In the preparatory stage, it is useful to assess the readiness of stakeholders to accept changes arising from cross-border data exchange and the availability of funds for any potential cross-border paperless trade project.

B7.2 Are the stakeholders and the trade ready community to accept changes arising from the re-engineered processes towards cross-border data exchange?

- Regulatory agencies
- Agencies/customs brokers
- Traders
- Port community
- Financial institutions
- Others (please specify)

Yes.

B7.3 Has your country government budget provisioned for the transition to cross-border paperless trade data exchange?

Yes. The cross-border paperless trade data exchange is based on the operation of the VUCEM, so it adheres to the budget already granted for the development of the single window.

B7.3.1 If not, what is your targeted schedule?

N/A

Sharing information on a country's preferences on the prioritized documents for cross-border data exchange can help identify potential participants having the same or similar preferences to work together on pilot projects.

B7.4 Is your country considering cross-border data exchange for any of the documents related processes? (Y = Yes, N = No. Please select the top five prioritized documents)

- i) Seaway bill
- ii) (Advance) Manifest
- iii) Customs transit declaration
- iv) Transit bond
- v) Phytosanitary certificate
- vi) Sanitary certificate
- vii) Fumigation certificate
ix) Certificate of origin (preferential)

x) Certificate of origin (non-preferential)

xi) Pharmaceutical certificate

xii) National standard and quality certificate

xiii) International Organization for Standardization (ISO) and other international standards and quality certificates

xiv) Certificate for medical devices

xv) Certificate of electrical and electronic components, equipment and products

xvi) Dangerous Goods List

xvii) Material safety data sheet

xviii) Letter of credit

xix) Bill of lading

xx) Invoice

xxi) Packing list

xxii) Import permit

xxiii) Others (please specify)

Seaway bill

(Advance) Manifest

Bill of lading

Phytosanitary certificate

Certificate of origin (preferential)

Zoo sanitary Certificate (it has CITES as a requirement for its issuance) (https://www.ven坦iillaunica.gob.mx/vucem/interoperabilidad.html)

B7.5 For each of the five prioritized documents identified in B7.4, please provide/specify further information on the following: document name; implementing agency; and percentage of the paperless documents and related processes.

Seaway bill: It is transmitted by shipping lines or cargo agents to VUCEM; 100% electronic. It is used for risk analysis with advance information.

(Advanced) Manifest: It is transmitted by shipping lines, airlines or railway companies to the VUCEM. 100% electronic. It is used for risk analysis with advance information.

Bill of lading: It is transmitted by shipping lines, or railway companies. 100% electronic. It is used for risk analysis with advance information.

Phytosanitary certificate: International phytosanitary certificate for the export of vegetables, their products and by-products, regulated by SADER, 100% of the procedure is paperless, the document is used in the process of import the goods to the destination country, ensuring that the goods comply with ISPM12 (International Standards for Phytosanitary Measures)

Certificate of origin (preferential): COD, under the PA Agreement, regulated by the SE, 100% of the procedure is paperless. The document allows for reduced tariffs, or exemptions, established between countries.
Zoo sanitary Certificate (it has CITES as a requirement for its issuance):

Zoo sanitary certificate for export: regulated by SADER, 100% of the procedure is paperless, the document is used in the process of import the goods to the destination country, ensuring that the goods meet all sanitary requirements.

Source interview with ANAM and SAT.
Annex 4
Appendix: Form for implementation of paperless trade by the other government agencies

<table>
<thead>
<tr>
<th>Name of the Secretary/Ministry or Agency</th>
<th>All the Secretaries involved with the cross-border trade of goods, integrated into the VUCEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Permit Type IL = Import License</td>
<td>The VUCEM allows to carry out at least 500 different procedures from different government agencies and regulatory bodies:</td>
</tr>
<tr>
<td>EL = Export License</td>
<td>- OT. Authorizations, official letters (resolutions), notices, acknowledgments of receipt, certificates, certifications.</td>
</tr>
<tr>
<td>C/O = Certificate of Origin</td>
<td>SE:</td>
</tr>
<tr>
<td>SC = Sanitary Certificates / health</td>
<td>- CO</td>
</tr>
<tr>
<td>PS = Phytosanitary Certificates</td>
<td>- IL</td>
</tr>
<tr>
<td>OT = Other Types</td>
<td>- EL</td>
</tr>
<tr>
<td></td>
<td>- OT. Trades (resolutions), certifications, quotas, records, acknowledgments, authorizations</td>
</tr>
<tr>
<td>SHCP that includes the tax agency (SAT)</td>
<td>SADER:</td>
</tr>
<tr>
<td>and the customs agency (ANAM):</td>
<td>- PS</td>
</tr>
<tr>
<td></td>
<td>- OT. Phytosanitary requirements sheets</td>
</tr>
<tr>
<td>SE:</td>
<td>SEMARNAT:</td>
</tr>
<tr>
<td></td>
<td>- PS</td>
</tr>
<tr>
<td></td>
<td>- OT. Authorizations, certificates, notices, official letters (resolutions)</td>
</tr>
<tr>
<td>SADER:</td>
<td>SEDENA:</td>
</tr>
<tr>
<td></td>
<td>- IL</td>
</tr>
<tr>
<td></td>
<td>- EL</td>
</tr>
<tr>
<td></td>
<td>- OT. Notices, official letters (resolutions)</td>
</tr>
<tr>
<td>SEDENA:</td>
<td>SSA:</td>
</tr>
<tr>
<td></td>
<td>- SC.</td>
</tr>
<tr>
<td></td>
<td>- OT. Notices, official letters (resolutions), acknowledgments.</td>
</tr>
<tr>
<td>SSA:</td>
<td>SENER:</td>
</tr>
<tr>
<td></td>
<td>- IL</td>
</tr>
<tr>
<td></td>
<td>- EL</td>
</tr>
<tr>
<td></td>
<td>- OT. Official letters (resolutions), acknowledgments, authorizations, permits</td>
</tr>
<tr>
<td>SENER:</td>
<td>PROFEPA:</td>
</tr>
<tr>
<td></td>
<td>- OT. Acknowledgments</td>
</tr>
<tr>
<td>PROFEPA:</td>
<td>INBAL:</td>
</tr>
<tr>
<td></td>
<td>- EL</td>
</tr>
<tr>
<td></td>
<td>- OT. Notices</td>
</tr>
<tr>
<td>INAL:</td>
<td>INAH:</td>
</tr>
<tr>
<td></td>
<td>- EL</td>
</tr>
<tr>
<td>INAH:</td>
<td>AMECAFE:</td>
</tr>
<tr>
<td></td>
<td>- CO</td>
</tr>
<tr>
<td></td>
<td>- OT. Acknowledgments</td>
</tr>
<tr>
<td>CRT:</td>
<td>- OT. acknowledgment</td>
</tr>
<tr>
<td>1. Has business process reengineering been conducted and completed?</td>
<td>Completed [x]</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>1.1. If it is on-going, when is it going to be completed? [ Year/Month ]</td>
<td></td>
</tr>
<tr>
<td>1.2. If it is not implemented, is there a plan to conduct it? [ ] Yes [ ] No [ ] Don’t know [ ]</td>
<td></td>
</tr>
<tr>
<td>1.3. If 1.2 is yes, when is it going to commence? [ Year/Month ]</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2. Has e-application (capability to receive process and issue document electronically) been implemented?</th>
<th>Fully implemented [x]</th>
<th>Partially implemented [ ]</th>
<th>Not implemented [ ]</th>
<th>Don’t know [ ]</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1. If it is not implemented, is there a plan to implement it? [ ] Yes [ ] No [ ] Don’t know [ ]</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.2. If 2.1 is yes, when is it going to be implemented? [ Year/Month ]</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.3 If it is implemented, how the supporting documents are being submitted? [ ] MSD = Manual Supporting Documents [ ] EDHC = Electronic Declaration/Application, but hard copy still required [X] any other method (please specify: PDF attachments are possible and in some cases conversion to B64 is required for delivery via web services)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Please provide further information such as website, date of implementation, etc. <a href="https://www.ventanillaunica.gob.mx/vucem/tramites.html">https://www.ventanillaunica.gob.mx/vucem/tramites.html</a> <a href="https://www.ventanillaunica.gob.mx/vucem/descargas.html">https://www.ventanillaunica.gob.mx/vucem/descargas.html</a></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>3. Has e-application been connected to the e-customs system and/or the single window?</th>
<th>e-customs system [ ]</th>
<th>Single Window [x]</th>
<th>Not connected [ ]</th>
<th>Don’t know [ ]</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.1. What is the level of integration between e-application and a single window and/or an e-customs system, if connected? [ ] Partially connected [X] Fully connected [ ] Don’t know [ ]</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Note: Partially connected means electronic transfer of information is one-way, while fully connected means electronic transfer of information is reciprocal between an e-application and a single window and/or an e-customs system.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Please provide further information such as website, date of implementation, etc. The VUCEM is the means of contact that shares data bidirectionally, with the customs system, cross-border systems and single windows of other countries. <a href="http://www.ventanillaunica.gob.mx">www.ventanillaunica.gob.mx</a></td>
</tr>
</tbody>
</table>

| 4. Is e-payment available for the e-application? | Yes [x] | No [ ] | | |
|---|---|---|---|
| 4.1. What are the available payment options for the e-Application? [X] EFT = electronic funds transfer [X] CD = cash deposit [X] CC = credit card [X] CSH = cash [ ] Other options (please specify_____________________________) | | | | |
| | | | | Please provide further information such as website, date of implementation, etc. Access links are provided according to each agency: https://www.e5cinco.economia.gob.mx/swb/es/e5cinco/home https://sistemasssl.senasica.gob.mx/hojaAyuda/derechosVentanillaBancaria.jsp https://www.semarnat.gob.mx/gobmx/pagosat5.html https://www.gob.mx/sedena/acciones-y-programas/esquema-e5cinco-para-obtener-la-hoja-de-ayuda https://tramiteelectronicos04.cofepris.gob.mx/e5cincco/ https://www.gob.mx/cmsns/documentos/hojas-de-ayuda-para-las-cuotas-de-aprovechamiento-2022 https://www.semarnat.gob.mx/gobmx/pagosat5.html https://e5cinco.bellasartes.gob.mx/newadri/index.php https://www.tramites.inah.gob.mx/ http://omawww.sat.gob.mx/adyunasPortal/Paginas/index.html#mupea Payments are made by deposit or bank transfer to an account provided by AMECAFE Payments are made by deposit or bank transfer to an account provided by the CRT. |
Annex 5

Mexican regulations relevant for paperless trade

Treaties, Standards, International Standards and Model Laws

Trade Integration Agreement between the United Mexican States and the Republic of Perú.\textsuperscript{192}

Promulgatory Decree of the Amendment Protocol to the Marrakesh Agreement establishing the World Trade Organization, made in Geneva on November twenty-seventh of two thousand and fourteen. (Trade Facilitation Agreement of the World Trade Organization).\textsuperscript{193}

Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).\textsuperscript{194}

Convention on the Recognition and Enforcement of Foreign Arbitral Awards (New York, 1958) ("New York Convention").\textsuperscript{195}

Convention 108 of the Council of Europe for the Protection of Individuals with regard to the Automatic Processing of Personal Data\textsuperscript{196} and the Additional Protocol to the Convention for the Protection of Individuals with regard to the Automatic Processing of Personal Data, Supervisory Authorities and Transborder Data Flows.\textsuperscript{197}

Convention No. 185, of the Council of Europe, on Cybercrime (Budapest Convention).\textsuperscript{198}

UNCITRAL Model Law on International Commercial Arbitration (1985).\textsuperscript{199}

UNCITRAL Model Law on Electronic Commerce (1996).\textsuperscript{200}

UNCITRAL Model Law on Electronic Transferable Records (2017).\textsuperscript{201}

UNCITRAL Model Law on Electronic Signatures (2001).\textsuperscript{202}

Framework of Standards to Secure and Facilitate Global Trade (SAFE).\textsuperscript{203}

Additional Protocol to the Framework Agreement of the Pacific Alliance.\textsuperscript{204}

Resolution that establishes the General Rules regarding the application of customs provisions for the Additional Protocol to the Framework Agreement of the Pacific Alliance and its Annexo,\textsuperscript{205} and its modifications.\textsuperscript{206}

Free Trade Agreement between the United Mexican States and the Republic of Panama.\textsuperscript{207}

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\textsuperscript{193} See https://www.dof.gob.mx/nota_detalle.php?codigo=5478938&fecha=06/04/2017#gsc.tab=0.
\textsuperscript{194} See https://www.cites.org/sites/default/files/esp/disc/CITES-Convention-SP.pdf.
\textsuperscript{196} See https://www.dof.gob.mx/nota_detalle.php?codigo=5539474&fecha=28/09/2018#gsc.tab=0.
\textsuperscript{198} See https://www.dof.gob.mx/nota_detalle.php?codigo=5435163&fecha=29/04/2016#gsc.tab=0.
\textsuperscript{199} See https://www.dof.gob.mx/nota_detalle.php?codigo=5435450&fecha=29/04/2016#gsc.tab=0.
\textsuperscript{200} See https://www.dof.gob.mx/nota_detalle.php?codigo=5560467&fecha=16/05/2019#gsc.tab=0.
Free Trade Agreement between the United Mexican States and the Oriental Republic of Uruguay.\textsuperscript{208}

United States-Mexico-Canada Agreement (USMCA).\textsuperscript{209}

Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP).\textsuperscript{210}

National Legislation

Federal Civil Code.\textsuperscript{211}

Commercial Code.\textsuperscript{212}

Federal Code of Civil Procedures.\textsuperscript{213}

Federal Tax Code.\textsuperscript{214}

Federal Criminal Code.\textsuperscript{215}

Political Constitution of the United Mexican States.\textsuperscript{216}

Customs Law.\textsuperscript{217}

Law of Acquisitions, Leases and Services of the Public Sector.\textsuperscript{218}

Advanced Electronic Signature Law.\textsuperscript{219}

Law of Navigation and Maritime Commerce.\textsuperscript{220}

Federal Economic Competition Law.\textsuperscript{221}

Federal Law on Administrative Procedures.\textsuperscript{222}

Federal Law on Contentious Administrative Procedures.\textsuperscript{223}

Federal Consumer Protection Law.\textsuperscript{224}

Federal Law on Protection of Personal Data Held by Private Parties.\textsuperscript{225}

Federal Law on the Protection of Industrial Property.\textsuperscript{226}

Federal Law of Patrimonial Responsibility of the State.\textsuperscript{227}

General Law on Protection of Personal Data in Possession of Obliged Subjects.\textsuperscript{228}

\textsuperscript{208} See https://dof.gob.mx/nota_detalle.php?codigo=668203&fecha=14/07/2004#gsc.tab=0.

\textsuperscript{209} See https://dof.gob.mx/2020/SRE/T_MEC_290620.pdf.

\textsuperscript{210} See https://dof.gob.mx/nota_detalle.php?codigo=5545230&fecha=29/11/2018#gsc.tab=0.

\textsuperscript{211} See https://www.diputados.gob.mx/LeyesBiblio/pdf/2_110121.pdf.

\textsuperscript{212} See https://www.diputados.gob.mx/LeyesBiblio/pdf/CCom.pdf.

\textsuperscript{213} See https://www.diputados.gob.mx/LeyesBiblio/pdf/CFPC.pdf.

\textsuperscript{214} See https://www.diputados.gob.mx/LeyesBiblio/pdf/CFF.pdf.

\textsuperscript{215} See https://www.diputados.gob.mx/LeyesBiblio/pdf/CPF.pdf.

\textsuperscript{216} See https://www.diputados.gob.mx/LeyesBiblio/pdf/CPEUM.pdf.

\textsuperscript{217} See https://www.diputados.gob.mx/LeyesBiblio/pdf/LAdua.pdf.

\textsuperscript{218} See https://www.diputados.gob.mx/LeyesBiblio/pdf/LFEA_200521.pdf.

\textsuperscript{219} See https://www.diputados.gob.mx/LeyesBiblio/pdf/LNPC.pdf.

\textsuperscript{220} See https://www.diputados.gob.mx/LeyesBiblio/pdf/LNFPC_270117.pdf.

\textsuperscript{221} See https://www.diputados.gob.mx/LeyesBiblio/pdf/LFPCA_270117.pdf.

\textsuperscript{222} See https://www.diputados.gob.mx/LeyesBiblio/pdf/LFPDP.pdf.

\textsuperscript{223} See https://www.diputados.gob.mx/LeyesBiblio/pdf/LFPDE_200521.pdf.

\textsuperscript{224} See https://www.diputados.gob.mx/LeyesBiblio/pdf/LFPL.pdf.

\textsuperscript{225} See https://www.diputados.gob.mx/LeyesBiblio/pdf/LFPPL_010720.pdf.

\textsuperscript{226} See https://www.diputados.gob.mx/LeyesBiblio/pdf/LFPPI_010720.pdf.

\textsuperscript{227} See https://www.diputados.gob.mx/LeyesBiblio/pdf/LFRPE_200521.pdf.
General Law of Administrative Responsibility.\textsuperscript{229}

General Law of Credit Instruments and Operations.\textsuperscript{230}

National Regulation

General Agreement 12/2020 of the Plenary of the Council of the Federal Judiciary, which regulates the integration and processing of electronic files and the use of videoconference calls in all matters that are the responsibility of the jurisdictional bodies in charge of the Council.\textsuperscript{231}

Decree establishing the Mexican Digital Window for Foreign Trade.\textsuperscript{232}

Decree establishing the National Single Window for Government Procedures and Information.\textsuperscript{233}

VUCEM Conditions of Use Guide.\textsuperscript{234}

Electronic Open International Public Tender for Services.\textsuperscript{235}

NOM-151-SCFI-2016 Requirements that must be observed for the preservation of data messages and digitization of documents (Cancels NOM-151-SCFI-2002).\textsuperscript{236}

Administrative Manual of General Application in the Matters of Information Technology and Communications and Information Security.\textsuperscript{237}

General Foreign Trade Rules for 2022.\textsuperscript{238}

\textsuperscript{228} See https://www.dof.gob.mx/nota_detalle.php?codigo=5469949&fecha=26/01/2017#gsc.tab=0.

\textsuperscript{229} See https://www.diputados.gob.mx/LeyesBiblio/pdf/LGRA.pdf.

\textsuperscript{230} See https://www.diputados.gob.mx/LeyesBiblio/pdf/145_220618.pdf.

\textsuperscript{231} See https://www.scjn.gob.mx/sites/default/files/normativa/electronico/documentos/143196_1.pdf.


\textsuperscript{233} See http://dof.gob.mx/nota_detalle.php?codigo=5380863&fecha=03/02/2015.

\textsuperscript{234} See https://www.ventanillaunica.gob.mx/vucem/otros/CondicionesdeUsoVUCEM.pdf.


\textsuperscript{237} See https://www.sat.gob.mx/seguridad/rgce/documentos/14537/reglas-generales-de-comercio-exterior-(rgce).
This document provides a technical and legal assessment of paperless cross-border trade in Mexico, based on a methodology developed by the Economic and Social Commission for Asia and the Pacific (ESCAP). It concludes that Mexico has a solid legal framework that fully recognizes electronic transactions and the principles of technological neutrality, autonomy of will, international compatibility, and functional equivalence of data messages and electronic signatures. Regarding the degree to which the technical environment facilitates paperless cross-border trade, the country has several electronic systems, including the Customs Electronic System and the Single Window for Mexican Foreign Trade, which promote a national paperless environment that has evolved over the last 30 years. Continuous improvement of electronic systems and the automation of processes related to international trade have positioned the country as a benchmark in the region. The document also presents several recommendations to highlight areas of opportunity and promote continuous improvement.