



UNTTC

Transport and trade connectivity in the age of pandemics

Digitalization of data and document exchange for multimodal transport and trade in Azerbaijan, using the UN/CEFACT standards and reference data models

PROJECT REPORT

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Terms and definition

UNECE - United Nations Economic Commission for Europe

UN/CEFACT - United Nations Center for Trade Facilitation and Electronic Business

BSP DM - Buy-Ship-Pay data model

SCRDM - Supply chain reference data model

MMT RDM - reference data model for multimodal transport

CBM RDM - reference data model for cross border management

EU CDM - Customs data model of the European Union

WCO - World Customs Organization

WCO DM - data model of the WCO

Project overview

The objective of the current project is further development of the digital transport documents that could provide seamless information flows accompanying cargo flows between countries along the GUAM transport corridor. Due to its position in the middle of the cargo transport routes between Europe and Asia, the use of UN/CEFACT standards and recommendations for cargo information sharing along this route makes much sense.

The focus of the project is on the practical application of the data models and standards to facilitate real-world transport operations that take place along this transport route, in particular, in transforming from trade and transport documents, represented in UN/CEFACT multimodal transport reference data model (MMT RDM) to customs documents, represented in the data model of World Customs Organization (WCO) through the UN/CEFACT Cross Border Management data model (CBM).

Background of the project.

The serious disruptions caused by the COVID19 pandemic to societies, economies, cross-border trade, and COVID's devastating impact on the livelihood of people, call for action to tackle the many social and economic dimensions of the crisis. Unprecedented measures to halt the spread of the disease through lockdowns, travel restrictions and social distancing have resulted in a significant reduction of supply and demand. The UN reported¹ that due to the COVID-19 pandemic in 2020, world output shrank by 4.3 per cent, over three times more than during the global financial crisis of 2009. The modest recovery of 4.7 per cent, which is expected in 2021, would barely offset the losses sustained in 2020. This makes even more pressing the need to intensify joint efforts to counter the negative tendencies in international trade. There is much to be gained from using United Nations standards to overcome the fragmentation of data and document flows for the digitalization of trade and transport across borders.

This underlines the importance of digitalization of information flows along supply chains and transport corridors to address the immediate threat of the COVID-19 pandemic by diminishing person-to-person contacts and the need to increase efficiency in trade and transport. Drivers and other workers in cross-border supply chains may be subject to the risk of contamination, quarantine requirements or other impediments. Risk mitigation measures should include the digitalization of transport, customs and trade documents, and their automated exchange based on international (UN) standards.

The COVID-19 crisis has, at the same time, opened a window of opportunity to harmonize standards and solutions for electronic trade and transport information exchange along multimodal digital corridors that would allow for seamless and contactless data sharing among various modes of transport and sectors. The effects of the pandemic have clearly shown that we should and can go beyond vested corporate, institutional or national interests, beyond departmentalized solutions for the digitalization of international trade and move towards the harmonization of data, documents and processes based on global standards for sharing data and documents.

In the context of implementing the recommendations of the 2019, 2020 and 2021 UNECE "Odessa" seminars to support the development of digital multimodal transport corridors, with a view to increasing the harmonization and standardization of data exchange in international transport, trade and logistics to encourage electronic data exchange and

¹ World Economic Situation and Prospects: February 2021 Briefing, No. 146, 1 February 2021, <https://www.un.org/development/desa/dpad/publication/world-economic-situation-and-prospects-february-2021-briefing-no-146/>

thereby to reduce person-to-person contacts during the COVID-19 crisis and in the post-pandemic recovery, using relevant UN/CEFACT standards, a pilot project started along the corridor including the countries-members of the Organization for Democracy and Economic Development GUAM ²(Georgia, Ukraine, Azerbaijan, and Moldova - the GUAM corridor), that includes:

- Analysis of the current practice of using transport and trade documents by the Azerbaijan Customs
- Identifying potential points of facilitation
- Determination of the list of transport and trade documents involved in the selected processes for further work within the project
- Mapping of the selected documents to the UN/CEFACT data models and creating transformation to the WCO DM dataset.

The aim is to foster harmonization of electronic data sharing using global (UN/CEFACT) standards for transport, trade and logistics, and to prepare standards for e-documents based on the UN/CEFACT semantic standards and reference data models. The focus will be on the development of electronic document equivalents for the documents mentioned above, using UN/CEFACT tools in the countries developing a digital multimodal transport corridor.

² <https://guam-organization.org/en/>

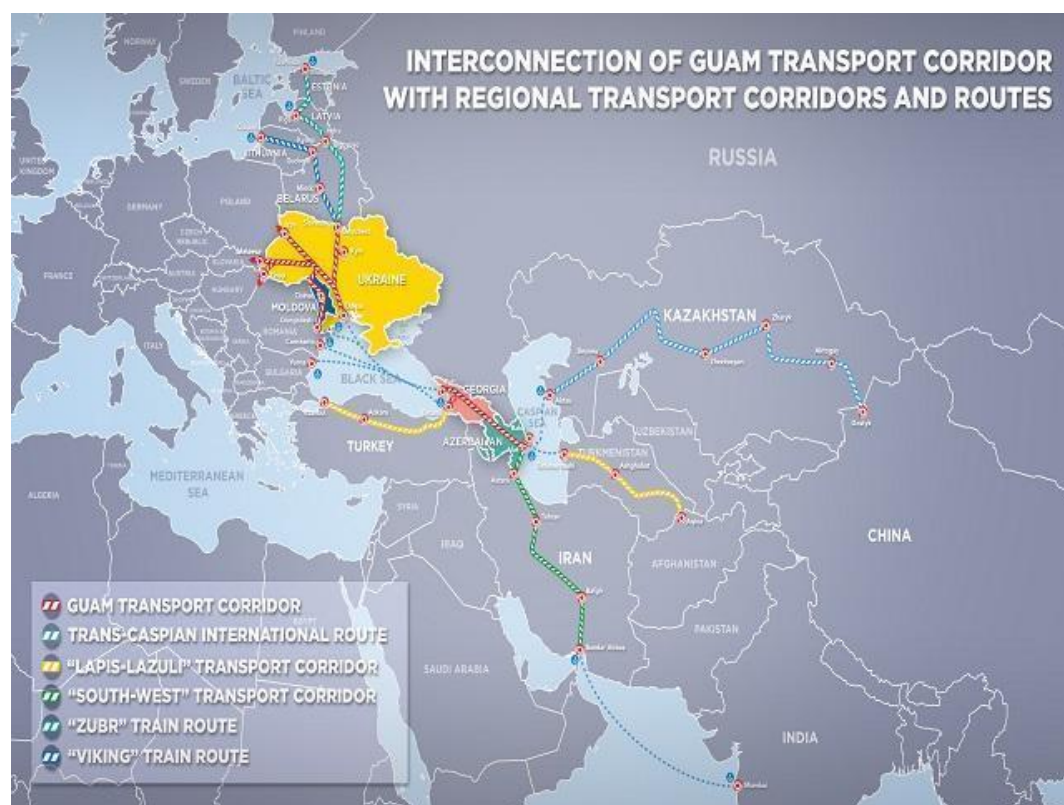
Project Activities and Outputs

1. Project background

The GUAM transport corridor connects four countries: Azerbaijan, Ukraine, Georgia, and Moldova. It is part of the larger East-West and TRACECA transport corridors and is also linked to other regional and international transport corridors.

The countries situated along this transport corridor established a regional organization: the Organization for Democracy and Economic Development - GUAM in 2006. The main goals of this organization are: strengthening of democratic values; ensuring the supremacy of law and respect for human rights; ensuring sustainable development; strengthening international and regional security and stability; deepening European integration for the creation of a common security space and the enlargement of economic and humanitarian cooperation; developing of socio-economic, transport, energy, scientific, technical and humanitarian potential; stimulating of political interaction and practical cooperation in fields of mutual interest. The GUAM Organization cooperates at the level of international organizations, in particular, the UN and the OSCE.

Figure 1: Interconnection of GUAM transport corridor with regional transport corridors and routes



Source: guam-organization.org

2. Assessment of the processes “AS-IS”

Assessment of the processes “AS-IS” is aimed at the gathering of the existing requirements of the State Customs Committee of Azerbaijan, elimination of the points of facilitation with focus on the data from the real transport documents.

The assessment was performed based on the questionnaires for each mode of the transport.

2.1. Maritime transport

Registration of goods in the port of Alyat (Azerbaijan) is carried out, depending on the type of transportation, on the basis of the following documents:

- SMGS - for wagons on the board of the vessel
- CMR, TIR Carnet - for trucks on the board of the vessel
- Cargo Manifest/Declaration and Bill of Lading - for liquid, bulk, containerized or directly on board cargoes. Information for the customs system is based on the Bill of Lading.

In addition to documents related to goods, the following documents are provided:

- Passenger list
- Crew list
- General declaration,
- Crew's effects list
- Ship's stores list

Table 1: Maritime transport - Questionnaire

No	Request / Question	Answer
1	Describe at what stages of the transport process this document is used by Customs	<ul style="list-style-type: none"> ● <i>To cross the border</i> ● <i>To register cargoes</i>
	To cross the border	
2	Specify the form of receiving of the document by Customs	<ul style="list-style-type: none"> ● <i>An original paper document</i>
3	Specify the format of receiving of the document by Customs	<i>Physically transmitted by the captain of the vessel</i>
4	List the details that are used by Customs in this process	<ol style="list-style-type: none"> 1. <i>Type of operations</i> 2. <i>Itinerary (Country of departure)</i> 3. <i>Itinerary (Country of arrival)</i> 4. <i>Port of departure</i>

No	Request / Question	Answer
		5. <i>Port of arrival</i> 6. <i>Full/Empty</i> 7. <i>Type of vessels</i> 8. <i>Flag</i> 9. <i>IMO number</i> 10. <i>Ship's name</i> 11. <i>Cargo manifest (pdf)</i> 12. <i>HZ code</i> 13. <i>Description of goods</i> 14. <i>Amount</i> 15. <i>Currency</i> 16. <i>Brutto</i> 17. <i>Pieces</i> 18. <i>Itinerary(from)</i> 19. <i>Itinerary(to)</i> 20. <i>TaxID of importer</i> 21. <i>Name of importer</i> 22. <i>TaxID of exporter</i> 23. <i>Name of exporter</i> 24. <i>Customs security details/seals</i> 25. <i>Container number</i> 26. <i>Bill of lading number</i> 27. <i>Customs of destination</i> 28. <i>Pdf of Bill of lading</i> 29. <i>Pdf of Invoice</i>
5	Specify whether the document is supplemented with any information from customs	<ul style="list-style-type: none"> • <i>A stamp with the details of the customs point</i>
6	Describe what additional documents may be required by Customs when working with this document	<ul style="list-style-type: none"> • <i>Packing list</i> • <i>Invoice</i> • <i>Cargo manifest</i>
7	Describe whether there are difficulties with the time of receiving of the document (or information from the document)	<i>There are no problems with receiving the document on time because the original paper documents are required during crossing the border.</i>
8	Describe whether there are difficulties with the	<i>No</i>

No	Request / Question	Answer
	form of receiving of information	
9	Describe whether there are difficulties with the completeness of the information	<ul style="list-style-type: none"> • <i>not all details required by Customs are filled in</i>
10	Describe whether there are difficulties in trusting the information provided	<i>No</i>
11	Describe whether there are difficulties with feedback from subjects	<ul style="list-style-type: none"> • <i>There is the possibility of registering to receive SMS messages about goods and vehicles related to this person, undergoing customs procedures on the portal of the customs service for residents of the country. Most residents use this service. An EDS is obvious.</i> • <i>The presence of non-residents during the passage of customs procedures is mandatory.</i>
	To register cargoes	
2	Specify the form of receiving of the document by Customs	<ul style="list-style-type: none"> • <i>A copy in electronic form (scan)</i>
3	Specify the format of receiving of the document by Customs	<i>Import - scanned version of Bill of Lading uploaded as PDF as an accompanying document during crossing the border</i>
4	List the details that are used by Customs in this process	<ol style="list-style-type: none"> 1. <i>Type of operations</i> 2. <i>Itinerary (Country of departure)</i> 3. <i>Itinerary (Country of arrival)</i> 4. <i>Type of vessels</i> 5. <i>Flag</i> 6. <i>Ship's name</i> 7. <i>HZ code</i> 8. <i>Description of goods</i> 9. <i>Amount</i> 10. <i>Currency</i> 11. <i>Brutto</i>

No	Request / Question	Answer
		<p>12. Pieces</p> <p>13. TaxID of importer</p> <p>14. Name of importer</p> <p>15. TaxID of exporter</p> <p>16. Name of exporter</p> <p>17. Customs security details/seals</p> <p>18. Container number</p> <p>19. Bill of lading number</p> <p>20. Customs of destination</p> <p>21. Pdf of Bill of lading</p> <p>22. Pdf of Invoice</p>
5	Specify whether the document is supplemented with any information from customs	<i>Bill of lading is only an accompanying document which confirm the information submitted to the customs declaration</i>
6	Describe what additional documents may be required by Customs when working with this document	<i>Other documents depending on the type of goods</i>
7	Describe whether there are difficulties with the time of receiving of the document (or information from the document)	<ul style="list-style-type: none"> • No
8	Describe whether there are difficulties with the form of receiving of information	<ul style="list-style-type: none"> • No
9	Describe whether there are difficulties with the completeness of the information	<ul style="list-style-type: none"> • No
10	Describe whether there are difficulties in trusting the information provided	<i>There are no such problems because all identification operations are carried out at the border crossing in import and export</i>
11	Describe whether there are difficulties with feedback from subjects	<ul style="list-style-type: none"> • <i>There is the possibility of registering to receive SMS messages about goods and</i>

No	Request / Question	Answer
		<p><i>vehicles related to this person, undergoing customs procedures on the portal of the customs service for residents of the country. Most residents use this service . An EDS is obvious.</i></p> <ul style="list-style-type: none"> • <i>The presence of non-residents during the passage of customs procedures is mandatory.</i>

Source: The authors

2.2. Road transport

Table 2: Road transport - Questionnaire

No	Request / Question	Answer
1	Describe at what stages of the transport process this document is used by Customs	<ul style="list-style-type: none"> • <i>To cross the border</i> • <i>To register cargoes</i>
	To cross the border	
2	Specify the form of receiving of the document by Customs	<ul style="list-style-type: none"> • <i>An original paper document</i> • <i>A copy in electronic form (scan)</i>
3	Specify the format of receiving of the document by Customs	<ul style="list-style-type: none"> • <i>In the case of filing a short (import), transit (transit) or export declaration, the scanned version of the CMR is uploaded as a PDF as an accompanying document within the cargo declaration system.</i> • <i>Physically transmitted by the business representative:</i> <ol style="list-style-type: none"> 1. <i>import - in the absence of a summary import declaration</i> 2. <i>in all the above cases to confirm the authenticity and verification of electronic data with the original</i>

No	Request / Question	Answer
4	List the details that are used by Customs in this process	<ol style="list-style-type: none"> 1. <i>Number</i> 2. <i>Consignee</i> 3. <i>Consignor</i> 4. <i>TaxID (import/export)</i> 5. <i>Country of departure</i> 6. <i>Country of arrival</i> 7. <i>HZ code</i> 8. <i>Description of goods</i> 9. <i>Brutto</i> 10. <i>Pieces</i> 11. <i>Container number</i> 12. <i>Truck number</i> 13. <i>Seals</i>
5	Specify whether the document is supplemented with any information from customs	<ul style="list-style-type: none"> ● <i>A stamp with the details of the customs point,</i> ● <i>Date and time of crossing the border</i>
6	Describe what additional documents may be required by Customs when working with this document	<ul style="list-style-type: none"> ● <i>Packing list</i> ● <i>Invoice</i> ● <i>Other documents depending on the type of goods</i>
7	Describe whether there are difficulties with the time of receiving of the document (or information from the document)	<ul style="list-style-type: none"> ● <i>There are no problems with receiving the document on time because the original paper CMR form is required during crossing the border for authentication.</i> ● <i>In accordance with the legislation of the Republic of Azerbaijan, the declared information must be indicated in the Azerbaijani language. This creates problems when submitting documents (including CMR) are written in other languages. Inside the country, when registering cargo, documents are translated into Azerbaijani by translators. At the border, when submitting a CID, this issue is resolved by the declarants. An urgent problem at the border with Iran (documents are submitted in Farsi), and</i>

No	Request / Question	Answer
		<i>other customs posts when importing from China and other countries.</i>
8	Describe whether there are difficulties with the form of receiving of information	<i>The original paper document must be presented during crossing the border to confirm the authenticity and verify the electronic data with the original. Stamps are affixed to the original paper document.</i>
9	Describe whether there are difficulties with the completeness of the information	<ul style="list-style-type: none"> ● <i>not all details required by Customs are filled in</i> ● <i>not all details required by Customs can be used:</i> <ul style="list-style-type: none"> ○ <i>unreadable text,</i> ○ <i>unknown fill language</i> ○ <i>use of classifiers not used by Customs</i>
10	Describe whether there are difficulties in trusting the information provided	<ul style="list-style-type: none"> ● <i>problems of falsification of paper documents</i>
11	Describe whether there are difficulties with feedback from subjects	<ul style="list-style-type: none"> ● <i>There is the possibility of registering to receive SMS messages about goods and vehicles related to this person, undergoing customs procedures on the portal of the customs service for residents of the country. Most residents use this service. An EDS is obvious.</i> ● <i>The presence of non-residents during the passage of customs procedures is mandatory.</i>
	To register cargoes	
2	Specify the form of receiving of the document by Customs	<ul style="list-style-type: none"> ● <i>A copy in electronic form (scan)</i>
3	Specify the format of receiving of the document by Customs	<ul style="list-style-type: none"> ● <i>Import - scanned version of the CMR uploaded as PDF as an accompanying document during crossing the border</i>

No	Request / Question	Answer
		<ul style="list-style-type: none"> • <i>Export - a scanned version of the CMR uploaded as a PDF as an accompanying document and uploaded to the cargo declaration system</i>
4	List the details that are used by Customs in this process	<ol style="list-style-type: none"> 1. <i>Number</i> 2. <i>Consignee</i> 3. <i>Consignor</i> 4. <i>TaxID (import/export)</i> 5. <i>Country of departure</i> 6. <i>Country of arrival</i> 7. <i>HZ code</i> 8. <i>Description of goods</i> 9. <i>Brutto</i> 10. <i>Pieces</i> 11. <i>Container number</i> 12. <i>Truck number</i> 13. <i>Seals</i>
5	Specify whether the document is supplemented with any information from customs	
6	Describe what additional documents may be required by Customs when working with this document	<ul style="list-style-type: none"> • <i>Packing list</i> • <i>Invoice</i> • <i>Other documents depending on the type of goods</i>
7	Describe whether there are difficulties with the time of receiving of the document (or information from the document)	<p><i>In accordance with the legislation of the Republic of Azerbaijan, the declared information must be indicated in the Azerbaijani language. This creates problems when submitting documents (including CMR) are written in other languages. Inside the country, when registering cargo, documents are translated into Azerbaijani by translators.</i></p>
8	Describe whether there are difficulties with the form of receiving of information	<ul style="list-style-type: none"> • <i>No</i>

No	Request / Question	Answer
9	Describe whether there are difficulties with the completeness of the information	<ul style="list-style-type: none"> • <i>not all details required by Customs are filled in</i> • <i>not all details required by Customs can be used:</i> <ul style="list-style-type: none"> ○ <i>unreadable text,</i> ○ <i>unknown fill language</i> ○ <i>use of classifiers not used by Customs</i>
10	Describe whether there are difficulties in trusting the information provided	<ul style="list-style-type: none"> • <i>There are no such problems because all identification operations are carried out at the border crossing in import and export</i> • <i>When exporting, in case of suspicion, the customs clearance officer may require a paper form to confirm the authenticity and verify the electronic data with the original</i>
11	Describe whether there are difficulties with feedback from subjects	<ul style="list-style-type: none"> • <i>There is the possibility of registering to receive SMS messages about goods and vehicles related to this person, undergoing customs procedures on the portal of the customs service for residents of the country. Most residents use this service. An EDS is obvious.</i> • <i>The presence of non-residents during the passage of customs procedures is mandatory.</i>

Source: The authors

2.3. Rail transport

Table 3: Rail transport - Questionnaire

No	Request / Question	Answer
1	Describe at what stages of the transport process this document is used by Customs	<ul style="list-style-type: none"> • <i>To cross the border</i> • <i>To register cargoes</i>

No	Request / Question	Answer
	To cross the border	
2	Specify the form of receiving of the document by Customs	<ul style="list-style-type: none"> • <i>An original paper document</i> • <i>Electronic data exchange between the railway operator (ARW) and Customs is developed. The pilot launch is scheduled for early 2023.</i>
3	Specify the format of receiving of the document by Customs	<ul style="list-style-type: none"> • <i>The original paper document is received from the railway operator, scanned and entered into the system</i> • <i>Electronic data exchange between the railway operator and Customs is developed.</i>
4	List the details that are used by Customs in this process	<ol style="list-style-type: none"> 1. <i>Type of operations</i> 2. <i>Itinerary (Country of departure)</i> 3. <i>Itinerary (Country of arrival)</i> 4. <i>RW station of departure</i> 5. <i>RW station of arrival</i> 6. <i>Full/Empty</i> 7. <i>Type of wagons</i> 8. <i>Vagon number</i> 9. <i>Home country</i> 10. <i>HZ code</i> 11. <i>Description of goods</i> 12. <i>Currency</i> 13. <i>Brutto</i> 14. <i>Pieces</i> 15. <i>Itinerary(from)</i> 16. <i>Itinerary(to)</i> 17. <i>TaxID of importer</i> 18. <i>Name of importer</i> 19. <i>TaxID of exporter</i> 20. <i>Name of exporter</i> 21. <i>Customs security details/seals</i> 22. <i>Container number</i> 23. <i>RW Consignment Note number</i> 24. <i>Customs of destination</i> 25. <i>Pdf of RW Consignment Note</i> 26. <i>Pdf of Invoice</i>

No	Request / Question	Answer
5	Specify whether the document is supplemented with any information from customs	<ul style="list-style-type: none"> • A stamp with the details of the customs point, • Date and time of crossing the border <p><i>Information from the SMGS is entered into the customs control system during crossing the border. Also additional information is entered:</i></p> <ul style="list-style-type: none"> • the results of weighing the vehicle, • the results of scanning the vehicle with the help of special means, • other customs details of control (numbers of seals, etc.), <p><i>Also certain types of customs payments are calculated and collected, indicated in the system (calculations are automated, payment is electronic/cash)</i></p>
6	Describe what additional documents may be required by Customs when working with this document	<ul style="list-style-type: none"> • loading/wagon lists - used to clarify information (not entered into the system) • Invoice • Other documents depending on the type of goods
7	Describe whether there are difficulties with the time of receiving of the document (or information from the document)	<p><i>At the border with Iran, SMGS is filled at the border by ARW and handed over to the Customs.</i></p> <p><i>At all borders, SMGS is first registered by ARW and then it is handed over to Customs. This process slows down the registration process. Electronic data exchange between the railway operator (ARW) and Customs will speed up this process.</i></p>
8	Describe whether there are difficulties with the form of receiving of information	<i>There is the original paper document. For entering into the customs control system, the information is translated into Azerbaijani</i>
9	Describe whether there are difficulties with the completeness of the	<i>No</i>

No	Request / Question	Answer
	information	
10	Describe whether there are difficulties in trusting the information provided	<i>In case of suspicion, additional customs procedures are carried out</i>
11	Describe whether there are difficulties with feedback from subjects	<ul style="list-style-type: none"> • <i>There is the possibility of registering to receive SMS messages about goods and vehicles related to this person, undergoing customs procedures on the portal of the customs service for residents of the country. Most residents use this service. An EDS is obvious.</i> • <i>The presence of non-residents during the passage of customs procedures is mandatory.</i>
	To register cargoes	
2	Specify the form of receiving of the document by Customs	<ul style="list-style-type: none"> • <i>A copy in electronic form (scan)</i>
3	Specify the format of receiving of the document by Customs	<i>Import - scanned version of the CMR uploaded as PDF as an accompanying document during crossing the border</i>
4	List the details that are used by Customs in this process	<ol style="list-style-type: none"> 1. <i>Itinerary (Country of departure)</i> 2. <i>Itinerary (Country of arrival)</i> 3. <i>Vagon number</i> 4. <i>Home country</i> 5. <i>HZ code</i> 6. <i>Description of goods</i> 7. <i>Currency</i> 8. <i>Brutto</i> 9. <i>Pieces</i> 10. <i>TaxID of importer</i> 11. <i>Name of importer</i> 12. <i>TaxID of exporter</i> 13. <i>Name of exporter</i> <p><i>This information is used only as clarifying/ certifying information from the Customs declaration</i></p>

No	Request / Question	Answer
5	Specify whether the document is supplemented with any information from customs	<i>SMGS is only an accompanying document which confirm the information submitted to the customs declaration</i>
6	Describe what additional documents may be required by Customs when working with this document	<i>Other documents depending on the type of goods</i>
7	Describe whether there are difficulties with the time of receiving of the document (or information from the document)	<ul style="list-style-type: none"> • <i>No</i>
8	Describe whether there are difficulties with the form of receiving of information	<ul style="list-style-type: none"> • <i>No</i>
9	Describe whether there are difficulties with the completeness of the information	<ul style="list-style-type: none"> • <i>No</i>
10	Describe whether there are difficulties in trusting the information provided	<ul style="list-style-type: none"> • <i>There are no such problems because all identification operations are carried out at the border crossing in import and export</i> • <i>When exporting, in case of suspicion, the customs clearance officer may require a paper form to confirm the authenticity and verify the electronic data with the original</i>
11	Describe whether there are difficulties with feedback from subjects	<ul style="list-style-type: none"> • <i>There is the possibility of registering to receive SMS messages about goods and vehicles related to this person, undergoing customs procedures on the portal of the customs service for residents of the country. Most residents use this service . An EDS is obvious.</i> • <i>The presence of non-residents during the passage of customs procedures is</i>

No	Request / Question	Answer
		<i>mandatory.</i>

Source: The authors

2.4. Air transport

Cargo registration at the Heydar Aliyev Baku Airport is carried out on the basis of the following documents:

- Flight Cargo Manifest and Airway Bill. Information for the customs system is based on the Airway Bill.

In addition to documents related to goods, the following documents are provided:

- Passenger list
- General declaration
- etc.

Table 4: Air transport - Questionnaire

No	Request / Question	Answer
1	Describe at what stages of the transport process this document is used by Customs	<ul style="list-style-type: none"> ● <i>To register goods in ports</i> ● <i>Customs clearance</i> ●
	To register goods in ports	
2	Specify the form of receiving of the document by Customs	<ul style="list-style-type: none"> ● <i>An original paper document</i>
3	Specify the format of receiving of the document by Customs	<i>Physically transmitted by the captain of the vessel</i>
4	List the details that are used by Customs in this process	<ol style="list-style-type: none"> 1. <i>Type of operations</i> 2. <i>Itinerary (Country of departure)</i> 3. <i>Itinerary (Country of arrival)</i> 4. <i>Airport of departure</i> 5. <i>Airport of arrival</i> 6. <i>Full/Empty</i> 7. <i>Type of vessels</i> 8. <i>Home country</i> 9. <i>Flight number</i> 10. <i>Place</i> 11. <i>Cargo manifest (pdf)</i>

No	Request / Question	Answer
		<p>12. Passenger list</p> <p>13. HZ code</p> <p>14. Description of goods</p> <p>15. Amount</p> <p>16. Currency</p> <p>17. Brutto</p> <p>18. Pieces</p> <p>19. Itinerary(from)</p> <p>20. Itinerary(to)</p> <p>21. TaxID of importer</p> <p>22. Name of importer</p> <p>23. TaxID of exporter</p> <p>24. Name of exporter</p> <p>25. Customs security details/seals</p> <p>26. Container number</p> <p>27. Bill of lading number</p> <p>28. Customs of destination</p> <p>29. Pdf of Bill of lading</p> <p>30. Pdf of Invoice</p>
5	Specify whether the document is supplemented with any information from customs	<ul style="list-style-type: none"> • A stamp with the details of the customs point
6	Describe what additional documents may be required by Customs when working with this document	<ul style="list-style-type: none"> • Packing list • Invoice • Cargo manifest
7	Describe whether there are difficulties with the time of receiving of the document (or information from the document)	<i>There are no problems with receiving the document on time because the original paper documents are required during crossing the border. Also the Airway Bill information is compared with the preliminary BCT information.</i>
8	Describe whether there are difficulties with the form of receiving of information	<i>Preliminary BCT information is added with data from the Airway Bill and invoice.</i>
9	Describe whether there are difficulties with the completeness of the	<ul style="list-style-type: none"> • not all details required by Customs are filled in BCT and Airway Bill

No	Request / Question	Answer
	information	
10	Describe whether there are difficulties in trusting the information provided	<ul style="list-style-type: none"> • <i>No</i>
11	Describe whether there are difficulties with feedback from subjects	<ul style="list-style-type: none"> • <i>There is the possibility of registering to receive SMS messages about goods and vehicles related to this person, undergoing customs procedures on the portal of the customs service for residents of the country. Most residents use this service . An EDS is obvious.</i> • <i>The presence of non-residents during the passage of customs procedures is mandatory.</i>
	Customs clearance	
2	Specify the form of receiving of the document by Customs	<ul style="list-style-type: none"> • <i>A copy in electronic form (scan)</i>
3	Specify the format of receiving of the document by Customs	<i>Import - scanned version of Airway Bill uploaded as PDF as an accompanying document during crossing the border</i>
4	List the details that are used by Customs in this process	<ol style="list-style-type: none"> 1. <i>Type of operations</i> 2. <i>Itinerary (Country of departure)</i> 3. <i>Itinerary (Country of arrival)</i> 4. <i>Flight number</i> 5. <i>HZ code</i> 6. <i>Description of goods</i> 7. <i>Amount</i> 8. <i>Currency</i> 9. <i>Brutto</i> 10. <i>Pieces</i> 11. <i>Customs security details/seals</i> 12. <i>Container number</i> 13. <i>Bill of lading number</i> 14. <i>Customs of destination</i> 15. <i>Pdf of Bill of lading</i> 16. <i>Pdf of Invoice</i>

No	Request / Question	Answer
5	Specify whether the document is supplemented with any information from customs	<i>Airway Bill is only an accompanying document which confirm the information submitted to the customs declaration</i>
6	Describe what additional documents may be required by Customs when working with this document	<i>Other documents depending on the type of goods</i>
7	Describe whether there are difficulties with the time of receiving of the document (or information from the document)	<ul style="list-style-type: none"> • <i>No</i>
8	Describe whether there are difficulties with the form of receiving of information	<ul style="list-style-type: none"> • <i>No</i>
9	Describe whether there are difficulties with the completeness of the information	<ul style="list-style-type: none"> • <i>No</i>
10	Describe whether there are difficulties in trusting the information provided	<i>There are no such problems because all identification operations are carried out at the border crossing in import and export</i>
11	Describe whether there are difficulties with feedback from subjects	<ul style="list-style-type: none"> • <i>There is the possibility of registering to receive SMS messages about goods and vehicles related to this person, undergoing customs procedures on the portal of the customs service for residents of the country. Most residents use this service . An EDS is obvious.</i> • <i>The presence of non-residents during the passage of customs procedures is mandatory.</i>

Source: The authors

2.5. Customs Dataset

As a final result of the “AS-IS” process assessment, the Customs Dataset was created on the basis of the data from the transport documents. This dataset combines all data

attributes from all transport documents that are used in Customs clearance procedures. So, the focus of the next steps, particularly - overview of the individual datasets (of the transport documents), mapping the datasets to the UN/CEFACT and WCO data models - is on the attributes that are listed in the Customs Dataset.

Table 5: Customs dataset

	Attributes	Transport documents			
		Road	Avia	Maritime	Rail
1	Type of operations	X	X	X	X
2	Delivery control period to the destination	X			
3	Itinerary (Country of departure)	X	X	X	X
4	Itinerary (Country of arrival)	X	X	X	X
5	Airport of departure		X		
6	Airport of arrival		X		
7	Port of departure			X	
8	Port of arrival			X	
9	RW station of departure				X
10	RW station of arrival				X
11	Full/Empty	X	X	X	X
	Technical characteristics of the vehicle				
1	Type of vessels/wagons/trucks	X	X	X	X
2	Number of vessels/wagons/trucks	X	X		X
3	Marks	X			
4	Chassis number	X			
5	Weight of wagons/trucks	X			
6	Number of axles	X			
7	Year of issue	X			
8	Home country/Flag	X	X	X	X
9	IMO number			X	
10	Ship's name			X	
11	Flight number		X		
12	Place		X		
13	Pdf of the Cargo Manifest		X		
14	Pdf of the Passenger List		X	X	
	Driver's information				
1	Driver document's number	X			
2	Citizenship	X			
3	Surname	X			
4	Name	X			
5	Middle Name	X			
6	Tel. number/Address	X			
	Goods				
1	HZ code	X	0. X	X	X

2	Description of goods	X	X	X	X
3	Amount	X	X	X	
4	Currency	X	X	X	X
5	Brutto	X	X	X	X
6	Pieces	X	X	X	X
7	Itinerary(from)	X	X	X	X
8	Itinerary(to)	X	X	X	X
9	TaxID of importer	0.X	0.X	0.X	0.X
10	Name of importer	X	X	X	X
11	TaxID of exporter	0.X	0.X	0.X	0.X
12	Name of exporter	X	X	X	X
13	Customs security details/seals	X			X
14	Container number	X	X	X	X
15	Bill of lading number	X	X	X	X
16	Number of customs documents	0.X		0.X	
17	TIR Carnet number	X			
18	Customs of destination	X	X	X	X
19	Pdf of the Bill of lading	X	X	X	X
20	Pdf of the Invoice	X	X	X	X

Source: The authors

3. Overview of the individual datasets

Table 6: Datasets list

Document	Base International Reference Standard
CMR	UN/CEFACT Multimodal Transport Reference Data Model
Maritime Bill of Lading	UN/CEFACT Multimodal Transport Reference Data Model
SMGS	UN/CEFACT Multimodal Transport Reference Data Model
Invoice (for Customs use)	UN/CEFACT Supply Chain Reference Data Model

Source: The authors

The individual reports and outputs attached in annexes of this report reflect datasets created per provided paper document used along the GUAM transport corridor. These subsets show the usage of paper documents names and terms in alignment with international standards data exchange modeling. In addition, box numbers from paper documents are reflected in the reports where applicable.

The data model provides the possibility to hold information about document authentication inside the Exchanged Document section of each document (dataset). However, the legal aspects were out of the scope of this assessment, and we decided to hold the message-related (or document-related) electronic signature data in the message envelope and thus separate it from the message contents. The Signatory Authentication information in the Exchanged Document section can be used for the metadata about an authentication for the content (paper or electronic signatures).

Real world examples of the documents included in the scope of the project are listed in the Annex I.

4. Mapping the datasets to the UN/CEFACT and WCO data models

Reference Data Models (RDMs) provide a comprehensive subset of the UN/CCL and its associated code lists with all the information pertinent to a sector of activity such as Supply Chain Management (SCRDM) or Multi-Modal Transport (MMT RDM).

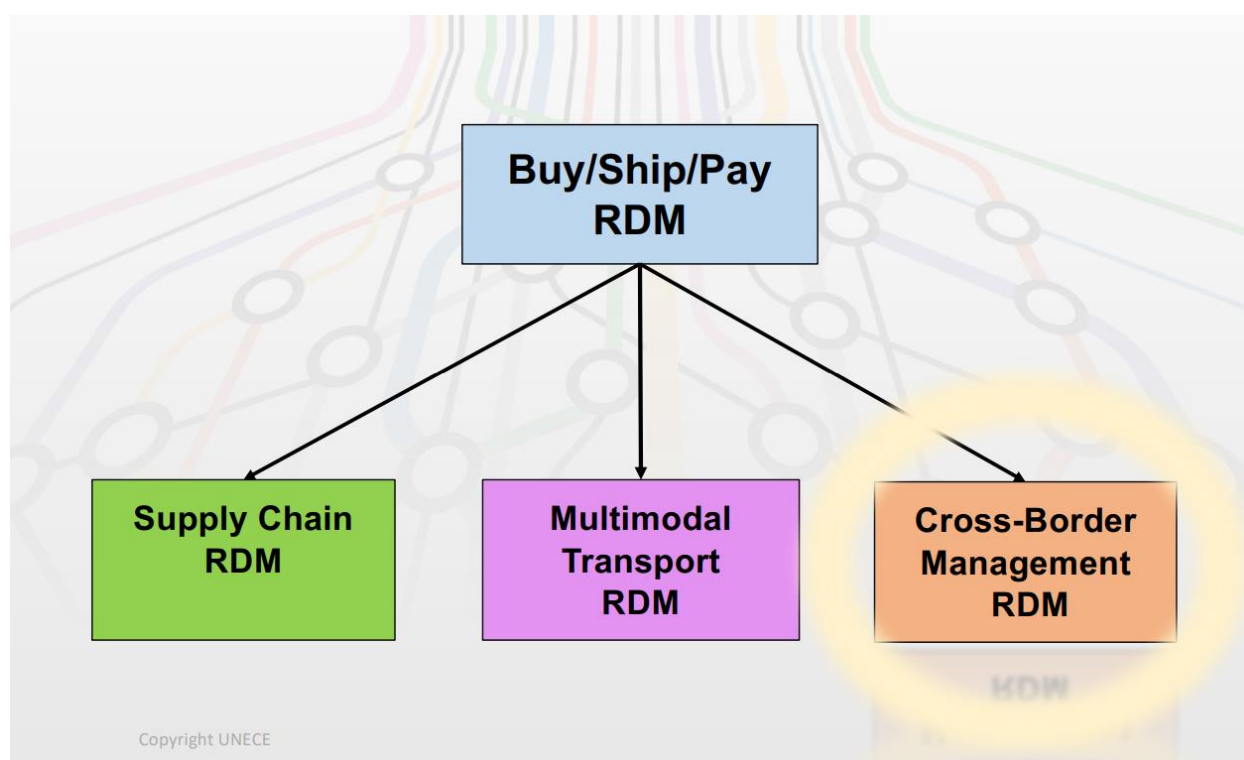
RDMs group together all the necessary data requirements for a sector of activity and cover all of that sector's relevant documentary and information requirements. The pertinent code lists are recommended within the subsets and all non-relevant codes are removed—making it easier to reuse and supporting global interoperability. For example, the UN/CEFACT unit of measure code list is restricted to weight-related codes for gross weight only (volume and distance are not included).

Individual messages related to a sector of activity are seen as a subset of the RDM, which itself is a subset of the UN/CCL (like a box within a box within a box). The RDMs are not exclusive to each other as they will obviously share a lot of the same information. Furthermore, as the UN/CCL is a hierarchical data model, the RDMs also inherit the underlying hierarchy. This allows identifying relationships between data (such as a “Seal Identification” being related to the container on which it is affixed). This hierarchy enables a process-driven (or event-driven) approach to data exchange instead of being obliged to consider information only in the context of a paper-based data exchange.

The CBM RDM:

- Provides a Regulatory Reference Data Model within the UN/CEFACT semantic library to assist authorities' link this information to the standards of other organizations.
- Delivers a RDM to cover the trade and transport-related processes of the cross-border supply chain, the main parties and the information involved.
- Links the BSP, SCRDM and MMT RDM with existing customs standards based on the developing (EUCDM) standard, sharing a base of components the UN Core Component Library (UN CCL).
- Creates a subset of the UN CCL showing the shared aspects between the international supply chain and transport-logistics chains and the agency driven data models (EUCDM).
- UN/CEFACT Reference Data Models (RDMs) provide a comprehensive subset of the UN/CCL and Code Lists.
- CBM-RDM will expand/link to data models based in well established:
 - Buy-Ship-Pay (BSP) which is the top level;
 - Supply Chain Management (SCRDM);
 - Multimodal Transport (MMT RDM).

Figure 2: UN/CEFACT models' hierarchy



Source: UN/CEFACT

4.1. Mapping to the UN/CEFACT MMT

4.1.1. *Maritime Bill of Lading*

- a) The mapping was performed using real business cases documents:
 - Maritime Transport BoL;
- b) The original documents used for the mappings are demonstrated in Annex I.
 - Maritime Transport BoL;
- c) The results of the mapping are demonstrated in Annex II.
- d) General considerations

The maritime bill of lading was already thoroughly analyzed in the series of previous assessments³. All considerations made in those reports are valid for the present assessment. As a common recommendation, we propose to harmonize the structure of classes for all parties involved in the shipment process and to use the same list of arguments and attributes, especially the structure of address, country subdivision codes and names, mobile phone numbers.

In addition, during the test, in the data model there were inaccessible entities for goods description in plain text form, inside the class Included Consignment Item. Only the code was accessible. Consequently, it is recommended to include both code and description

³ <https://unttc.org/documents/report-standardized-digitalization-multimodal-transport-ua>
<https://unttc.org/documents/dnieper-danube-corridor-pilot-dataset-alignment-international-standards-and-data-models>
<https://unttc.org/documents/alignment-documents-used-multimodal-transportation-along-guam-transport-corridor-uncfact>

to keep the information in the exchanged document readable both for a machine and for a human.

Even if the quantity of consignment items (pieces and weight) is available, it is possible to add also corresponding totals to the consignment entity entry, and to provide both numeric and plain text descriptions of totals to guarantee consistency of the document exchanged (instead of generating the textual representation of amount programmatically on both sides – sender and recipient).

4.1.2. *CMR*

- a) The mapping was performed using real business case documents:
 - Iran- Azerbaijan;
 - Georgia- Azerbaijan;
 - Russia- Azerbaijan;
- b) The original documents used for mappings are demonstrated in Annex I.
 - Iran- Azerbaijan;
 - Georgia- Azerbaijan;
 - Russia- Azerbaijan;
- c) The results of the mapping are demonstrated in Annex II.
- d) General considerations

CMR is the main document for international road transport. In this assessment, the CMR assessed while crossing the borders with Iran, Georgia and Russia.

For the present time neither Georgia nor Azerbaijan have joined the amendment protocol to the Convention (e-CMR). Such an accession could simplify the application of electronic documents throughout the entire route of transportation, given the fact that most of the neighbors, including Ukraine, Russia, Turkey and Iran, have already acceded to this protocol.

Comparing CMR documents with the MMT RDM, we see that this document is well formalized from the point of view of a paper document (in accordance with the requirements of the CMR Convention⁴) and, accordingly, is implemented in the form of a data model profile.

As for the common practice, it is not used to fulfill the contract information in the paper CMR consignment note. Nevertheless, the entities for such information are foreseen in MMT RDM.

4.1.3. *SMGS*

- a) The mapping was performed using real business case documents:
 - Iran- Azerbaijan;
 - Georgia- Azerbaijan;
 - Russia- Azerbaijan;
- b) The original documents used for mappings are demonstrated in Annex I.
 - Iran-Azerbaijan;
 - Georgia-Azerbaijan;
 - Russia-Azerbaijan;
- c) The results of the mapping are demonstrated in Annex II.

⁴ https://treaties.un.org/Pages/ViewDetails.aspx?src=IND&mtdsg_no=XI-B-11&chapter=11&clang=en

d) General considerations

In this assessment, the railway consignment note was assessed while crossing the borders with Iran, Georgia and Russia. It should be mentioned, that direction from Georgia also includes shipments from other countries on the GUAM transport corridor, particularly Ukraine. The shipment between Azerbaijan and Ukraine is performed with the SMGS railway consignment note that is used also as a maritime way bill during ferry transportation from port Poti (Georgia) to port Chornomorsk (Ukraine). Thus, the railway consignment note could be used as a single document for multimodal shipment.

The SMGS consignment note has been mapped to the MMT RDM in the previous assessment on Black Sea – Baltic Sea transport corridor done by the experts from Belarus⁵ and in other projects. All considerations mentioned in their report are valid for the current assessment. In this assessment mapping was done on the basis of the latest version of the SMGS profile of the MMT RDM that was updated by the UN/CEFACT experts in cooperation with Organization for cooperation between railways (OSJD⁶). Additionally, there are some attributes that can also be reviewed from the data modeling point of view. Specifically:

- Information about cargo after reloading – weight (box #13) and pieces (box#14) – is not available in the present version of the SMGS profile of MMT RDM, but is available in MMT RDM itself – as an ABIE Transport_ Event. Value. Measure of the Supply Chain_ Consignment. Examination. Transport_ Event class;
- Information about the kind of package – box#16 – is also available in MMT RDM but not in the profile, ABIE Logistics_ Package. Type. Text of the Supply Chain_ Consignment. Related. Supply Chain_ Trade Transaction class;
- Information about the list of railway stations where the borders were crossed – ABIE Logistics_ Location of the Logistics_ Transport Movement. Transshipment_ Intermediate. Transport_ Event class.

4.1.4. *Invoice (for Customs use)*

- a) The mapping was performed using real business case documents:
 - Invoice issued in Ukraine for Azerbaijan;
 - Invoice issued in Kazakhstan for Azerbaijan;
 - Invoice issued in Turkmenistan for Azerbaijan;
 - Invoice issued in China for Azerbaijan;
- b) The original documents used for mappings are demonstrated in Annex I.
- c) The results of the mapping are demonstrated in Annex II.
- d) General considerations

The invoice is much better formalized in electronic form than in paper. Actually, the common practice is to issue an invoice in a free form with information, related to the details of the specific contract. Consequently, the mappings of invoices issued in different countries and in different contract conditions differ. However, it is possible to specify some common issues.

⁵ <https://unttc.org/documents/standardized-dataset-aligned-international-standards-and-uncefact-reference-data-models>

⁶ <https://en.osjd.org/>

There are differences in the usage of the entities with common roles in different jurisdictions, specially:

Seller. Trade_Party:

- Consignor
- Seller
- Shipper.

We should also mention a difference in the bank qualification. Some information from the real-world documents were not present in the current version of RDM and their inclusion should be considered:

- Referenced documents
- Country of destination
- Producer
- Contract number
- Contract date
- Place of delivery by the terms
- Marks and notes
- Totals for sub-packages
- Totals for goods characteristics (ADMT)

4.2. Mapping to the UN/CEFACT CBM – WCO DM

As were described earlier in this section, the hierarchy of the UN/CEFACT data models allows us to build a bridge between transport and Customs data sets. On the previous step all real-world transport documents were mapped with the MMT RDM. On this step we will map these datasets to the WCO DM via the UN/CEFACT CBM DM.

4.2.1. Approach

Main principles and steps:

- The technical structure of the MMTRDM is used as the baseline - the matching between the lowest level of the data elements.
- When differences related to:
 - the business content – no mapping proposed
 - format, and/or technical characteristics – a mapping is proposed.
- With regards to the format, agreements will need to be reached whether differences are to be reconciled via transformation through the IT system itself or ex ante, through consensus of the parties.

4.2.2. eCMR dataset mapping

The table attached in Annex II was prepared based on:

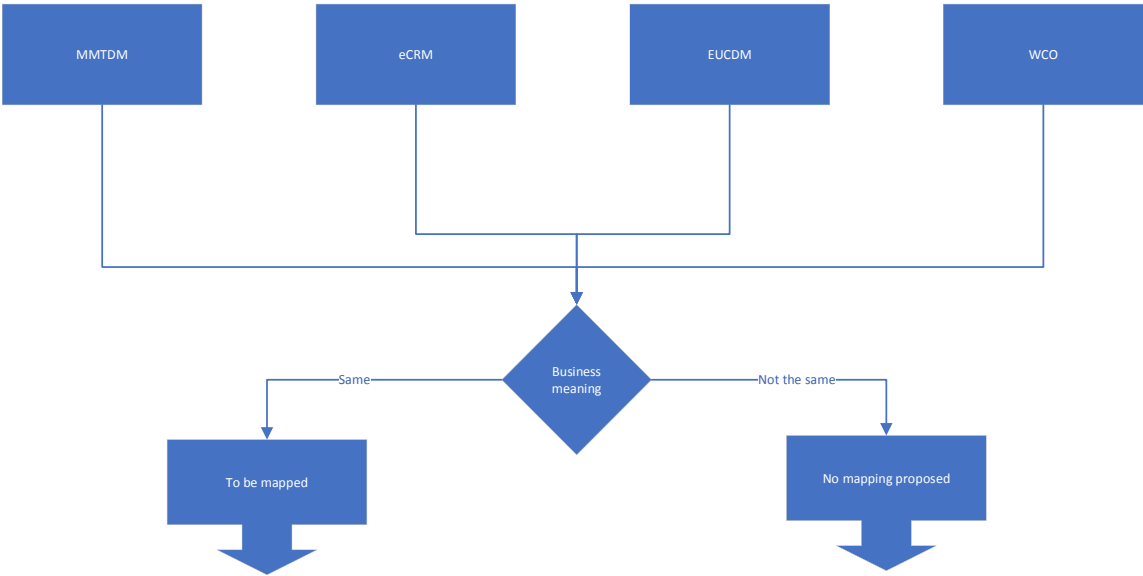
1. MMT RDM
2. eCRM (proposal based on paper CRM form)
3. EUCDM (version 6.2, as published on EUCDM 6.2⁷)
4. WCO (version 3.11.0, as per the publication WCO Data Model App⁸)

The mapping has been carried out by comparing data elements from eCMR and MMT RDM and the set of data of Entry summary declaration – Road mode of transport, column F50, Annex B of UCC and, respectively, WCO Consignment view.

⁷ <https://eucdm.softdev.eu.com>

⁸ <https://datamodel.wcoomd.org/#/infopack/scope/global>

Figure 3: Data mapping Process flow



Source: The authors

4.2.3. Considerations

For that DE⁹s from eCRM that a proper mapping was not found, the proposal is to create new ones with the same format as similar DEs, i.e.:

- Box 18 Carriers reservations and observations
- Box 21 Established in

The proposal is not to use the DG¹⁰ *BSP Master/Exchanged_ Document* but *BSP Master/Exchanged_Declaration* as the mapping is from the perspective of the document as such (to be used for automated check versus Entry summary declaration or to fill in the declaration DEs (as a re-use of the available data)

For some of the DEs and DGs (see Figure 4 below) mapping is not provided, as those DEs/DGs are not applicable for the particular customs procedure

Figure 4: Example of the notation for non-mapped elements

BSP Master/Specified Supply Chain/Consignor/Trade Party/Defined Trade Contact	UN01004802	ASB Defined Contact Details IE	Trade_Party_Defined_Trade_Contact	A trade contact defined for this trade party	Defined Contract Details	n/a	n/a	n/a	n/a
BSP Master/Specified Supply Chain/Consignor/Trade Party/Defined Trade Contact/Person Name	UN01001542	BBB Person Name IE	Trade_Contact_Person Name_Text	The name, expressed as text, of this trade contact person.	Person Name	n/a	n/a	n/a	n/a
BSP Master/Specified Supply Chain/Consignor/Trade Party/Defined Trade Contact/Telephone	UN01001564	ASB Telephone IE	Trade_Contact_Telephone_Universal_Communication	Telephone communication information for this trade contact.	Telephone	n/a	n/a	n/a	n/a

Source: The authors

DEs, related to take-over and delivery places and dates and dates are not mapped (Figure 5), as there is no unambiguous mapping. If the mapping will be to loading or acceptance and unloading or delivery, it depends on who submit the information and on which level.

⁹ DE – Data Element

¹⁰ DG – Data Group

Figure 5: Examples of mapping collisions

RDM Path	Unique UN Assigned ID	ABI	Business Name	CCL DEN (Dictionary Entry Name)	Definition	Business name	WCO ID	WCO name	WCO XML Name	WCO Path	WCO format	EUCDM name	EUCDM Format
BSP Master/Specified. Supply Chain. Consignment/Delivery. Transport_Event	UN01004251	ASB E	Consignee Delivery Event	Supply Chain. Consignment. Delivery. Transport_Event	The delivery event for this supply chain consignment.	Place and date of taking over the goods (address, country, date)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
BSP Master/Specified. Supply Chain. Consignment/Delivery. Transport_Event	UN01004796	BBE E	Actual Occurrence Date Time	Transport_Event. Actual_Occurrence. Date Time	The actual date, time, date time, or other date time value of the occurrence of this transport event.	Date	n/a	n/a	n/a	n/a	n/a	n/a	n/a
BSP Master/Specified. Supply Chain. Consignment/Delivery. Transport_Event	UN01003681	BBE E	Name	Logistics_Location. Name. Text	A name, expressed as text, of this logistics related location.	Place	n/a	n/a	n/a	n/a	n/a	n/a	n/a
BSP Master/Specified. Supply Chain. Consignment/Pick-Up. Transport_Event	UN01004254	ASB E	Carrier Pick-Up Event	Supply Chain. Consignment. Pick-Up. Transport_Event	The pick-up event for this supply chain consignment.	Place of delivery of the goods (address, country)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
BSP Master/Specified. Supply Chain. Consignment/Pick-Up. Transport_Event	UN01004796	BBE E	Actual Occurrence Date Time	Transport_Event. Actual_Occurrence. Date Time	The actual date, time, date time, or other date time value of the occurrence of this transport event.	Date	n/a	n/a	n/a	n/a	n/a	n/a	n/a
BSP Master/Specified. Supply Chain. Consignment/Pick-Up. Transport_Event	UN01003681	BBE E	Name	Logistics_Location. Name. Text	A name, expressed as text, of this logistics related location.	Place	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Source: The authors

The results of such mapping are in the Annex II.

4.2.4. Mapping to the EU CDM

As an optional exercise during the current assessment, besides WCO DM the EU CDM was also used for mapping. It should be mentioned that EU CDM is well linked to the WCO DM, so the mapping results are not surprising, but could be used by the Azerbaijan Customs in the context of regional cooperation and in particular for the transit procedures (NCTS).

5. Description of the approach for facilitation

In Section 2 there were described the result of the assessment that was done during the project. These results show the present situation in the document flow between participants of the shipment process and the Customs Authorities (“AS IS”).

On the basis of the UN/CEFACT key artifacts, particularly - hierarchy of data models, XML schemas and trade facilitation recommendations, there are several points of optimization highlighted.

5.1. Point of the facilitation

5.1.1. *Railway transport documents*

Due to specific requirements for the data and documents provided to Custom, in general carriers or representatives of the cargo owner acting as a “converter” of the documents to comply with such requirements. In case of the railway transport the state enterprise “Azerbaijan Railways”¹¹ is doing this function.

To facilitate the conversion of the documents, provided by the foreign railway administrations to the unified form, it is recommended to consider using the UN/CEFACT standards for railway consignment note (SMGS and CIM/SMGS). According to this, 3 points of application are available:

- Data exchange between Azerbaijan Railways and Customs;
- Data exchange between foreign and Azerbaijan Railways;
- Data exchange between end-users (customers) and Azerbaijan Railways.

5.1.2. *Road transport documents*

For the road transport case there is no single point of contact between Customs and the carriers. To facilitate the process of providing data to the Customs it is recommended to consider using the UN/CEFACT standard for the road consignment note (CMR). This also could be a basis for the further accession to the additional protocol for the CMR Convention¹². According to this, 2 points of application are available:

- Data exchange between road carriers (or their representatives) and Customs;
- Establishing a link between preliminary Customs declaration and the consignment in the CMR;

5.1.3. *Maritime transport documents*

In the case of maritime transportation, ports traditionally act as a hub (or single point of contact) for other modes of transport and authorities. To facilitate both the process of the information exchange between parties involved in maritime transportation and the Customs, as a process of cargo clearance in the ports, it is recommended to consider using the preliminary information in the form of entry/exit summary declaration (ENS/EXS).

Another point of optimization for maritime transportation - harmonization of the documents and requirements for port clearance in accordance with IMO regulations.

5.1.4. *Trade documents*

When it is about trade documents for presenting to the Customs, the first one is invoice. To facilitate the process of providing such a document and for processing it by

¹¹ <http://www.railway.gov.az/>

¹² <https://unece.org/DAM/trans/conventn/e-CMRe.pdf>

Customs it is recommended to consider using the UN/CEFACT standard for the invoice for Customs.

As another point of facilitation, accompanying documents should also be considered to process in accordance with UN/CEFACT standards. This is for:

- Certificate of origin;
- Phytosanitary certificate;
- Veterinary certificate.

5.2. Approach for facilitation

The approach for facilitation of the data and document exchange using UN/CEFACT standards and reference data models is based on long-term work, executed by UN/CEFACT first of all for facilitating multimodal shipment.

The transport documents of different models of transport were assessed by the authors in a series of previous projects that are published on the unttc.org site. The key focus of the present work is mapping of the transport data models to Customs data models. Thanks to the hierarchical structure of the UN/CEFACT data models (see Figure 2), it is possible to reuse data from the documents of different modes of transport to produce dataset required by Customs authorities. Moreover, the conversion of the data between such datasets could be also implemented as a unified solution.

As an example of the practical implementation of such an approach, two prototypes of the data processing applications were used in the framework of the project.

5.2.1. *Maritime Single Window Prototype*

First prototype is focused on the maritime transport and implement a maritime single window solution in accordance with the requirements of the Annex to the Convention on the Facilitation of International Navigation of 1965, approved by the International Maritime Organization Resolution FAL.12(40) Standard 1.3bis, based on the UN/CEFACT MMR reference data model and refers to the European Union's Maritime Single Window environment from the European Maritime Safety Agency) requirements.

The prototype is described in more details in the report "Assessment of the use of electronic documents based on the UN/CEFACT Multimodal Transport Reference Data Model (MMT RDM) in the execution of formalities for the registration of the arrival and departure of ships in the seaports of Ukraine" that is available on the UNTTC ¹³site, here is only a short information to illustrate the concept.

Vessel calls

This view represents the list of vessel calls.

¹³ <https://unttc.org/documents/assessment-use-electronic-documents-based-uncfact-multimodal-transport-reference-data>

Figure 6: MSW Prototype - Ship calls

Прототип Морського Єдиного Вікна Maritime Single Window Prototype					
Перелік суднозаходів / Ship calls					
ID	Ship	IMO	Port call	Agent	ETA
1	ADMIRAL MOON	9437220	UAODS	Odemara LTD	12.08.2021
2	CMA CGM COLUMBIA	9722663	UAODS	CMA CGM SHIPP...	20.06.2021
3	DENİZ AKAY	9349447	UANLV	METUNVEST SHI...	08.10.2021
4	NADEZHDA	42000237	UAIZM	PLASKE	23.07.2021
5	JOSEPH SCHULTE	9605243	UAODS	COSCO SHIPPING	17.09.2021
6	LILY HA	8116972	UAODS	Odemara LTD	17.08.2021
7	ZEFIREA	9607643	UAODS	Odemara LTD	10.08.2021
					1-7 of 7 < >

Prototype is aimed to help public authorities implement electronic information exchange systems.

Prototype implements the Annex to the Convention on the Facilitation of International Navigation of 1965, approved by International Maritime Organization Resolution FAL.12 (40), Standard 1.3bis, based on UN/CEFACT MMT reference data model (RDM) and refers to the European Union's Maritime Single Window Environment (of the European Maritime Safety Agency, EMSA) requirements.

Source: The authors

For each vessel call the information is represented by the following blocks. The list and structure of the blocks are similar to the EMSA prototype logic:

- Port - Port information
- Ships - Ship information
- Crew - Crew list
- Passengers - Passenger list
- Voyage - Voyage information
- Ship stores - Ship stores declaration
- Crew effects - Crew effects
- Cargo - Cargo declaration
- Health - Maritime Declaration of Health
- Dangerous goods - Dangerous goods declaration
- Security - Security information
- Waste - Waste information

Each block contains the necessary fields for providing the information. More details about each block are presented in the next section below.

Port

Ship

UNTTC | Project report

Crew

UNTTC | Project report

Прототип Морського Єдиного Вікна
Maritime Single Window Prototype

UPLOAD DOWNLOAD

Port
Ships
Crew
Passengers
Voyage
Ship stores
Crew effects
Cargo
Health
Dangerous goods
Security
Waste

Crew list

NR	Family name	Given name	Gender	Rank of rating	Nationality	Country of birth	Plac
1							

+ ADD ROW DELETE ROW

Source: The authors

Passenger

Figure 10: MSW Prototype - Passenger list

Прототип Морського Єдиного Вікна
Maritime Single Window Prototype

UPLOAD DOWNLOAD

Port
Ships
Crew
Passengers
Voyage
Ship stores
Crew effects
Cargo
Health
Dangerous goods
Security

Passenger list

NR	Family name	Given name	Gender	Nationality	Country of birth	Place of birth	Date
1							

+ ADD ROW DELETE ROW

Source: The authors

Voyage

Figure 11: MSW Prototype - Voyage

Прототип Морського Єдиного Вікна
Maritime Single Window Prototype

UPLOAD DOWNLOAD

Port
Ships
Crew
Passengers
Voyage
Ship stores
Crew effects
Cargo
Health
Dangerous goods
Security
Waste

Voyage information

NR	Date of arr	Date of de	Port(Lococ	Port facilit	Security le	Special or additional security measures ta
1						

+ ADD ROW DELETE ROW

Source: The authors

Ship stores

Figure 12: MSW Prototype - Ship stores

Прототип Морського Єдиного Вікна
Maritime Single Window Prototype

UPLOAD DOWNLOAD

Port
Ships
Crew
Passengers
Voyage
Ship stores
Crew effects
Cargo
Health
Dangerous goods

Ship stores

NR	Name of article	Quantity	Unit	Location on board
1				

+ ADD ROW DELETE ROW

Source: The authors

Прототип Морського Єдиного Вікна
Maritime Single Window Prototype

UPLOAD DOWNLOAD

Port
Ships
Crew
Passengers
Voyage
Ship stores
Crew effects
Cargo
Health
Dangerous goods

Cargo

Seq	B/L number	Port of loading	Port of discharge	Number of packages	Kind of packages
1					

+ ADD ROW DELETE ROW

Health

Прототип Морського Єдиного Вікна

Maritime Single Window Prototype

UPLOAD

DOWNLOAD

Port

Ships

Crew

Passengers

Voyage

Ship stores

Crew effects

Cargo

Health

Dangerous goods

Security

Waste

Maritime Declaration of Health

Health questions

(1) Has any person died on board during the voyage otherwise than as a result of accident?

Total no. of death

(2) Is there on board or has there been during the international voyage any case of disease which you suspect to be of an infectious nature?

How many ill persons?

(3) Has the total number of ill passengers during the voyage been greater than normal/expected?

(4) Is there any ill person on board now?

(5) Was a medical practitioner consulted?

(6) Are you aware of any condition on board which may lead to infection or spread of disease?

(7) Has any sanitary measure (e.g. quarantine, isolation, disinfection or decontamination) been applied on board?

Type	Place	Date

(8) have any stowaways been found on board? ▼

(9) Is there a sick animal or pet on board? ▼

If yes, where did they join the ship (if known)?

Note: In the absence of a surgeon, the master should regard the following symptoms as grounds for suspecting the existence of a disease of an infectious nature:
(a) fever, persisting for several days or accompanied by (i) prostration; (ii) decreased consciousness; (iii) glandular swelling; (iv) jaundice; (v) cough or shortness of breath; (vi) unusual bleeding; or (vii) paralysis.
(b) with or without fever: (i) any acute skin rash or eruption; (ii) severe vomiting (other than sea sickness); (iii) severe diarrhoea; or (iv) recurrent convulsions.

NR	Crew or passenger	Family name	First name	Illness	Symptoms Date	Reported to port

Source: The authors

Dangerous goods

Figure 16: MSW Prototype - Dangerous goods

Прототип Морського Єдиного Вікна
Maritime Single Window Prototype

📁 UPLOAD
📄 DOWNLOAD

- 👤 Port
- 🚢 Ships
- 👥 Crew
- 👤 Passengers
- 📅 Voyage
- 📋 Ship stores
- 👤 Crew effects
- 🚚 Cargo
- + Health
- ⚠️ Dangerous goods
- 🛡️ Security
- 🗑️ Waste

Dangerous goods

Seq	Container number	Textual reference	DG Classification	IMO hazard classes	UN number

+ ADD ROW
🗑️ DELETE ROW

Source: The authors

Security

Figure 17: MSW Prototype - Security information

Прототип Морського Єдиного Вікна
Maritime Single Window Prototype

UPLOAD

DOWNLOAD

Port

Ships

Crew

Passengers

Voyage

Ship stores

Crew effects

Cargo

Health

Dangerous goods

Security

Waste

Security Information

Security information

Does the ship have a valid International Ship Security Certificate (ISSC)?

If no, why not?

Issued by

ISSC type

Expiry date
27.06.2022

Security level at which the ship is currently operating

Is there any security-related matter you wish to report

CSO name and 24 hours contract details

Given name

Family name

Phone

Fax

Email

Ship-to-ship activities, in chronological order (most recent first) which were carried out during the last 10 calls at port facilities listed above

NR	Date from	Date departure	Location	Latitude	Longitude
1					

Source: The authors

Waste

Figure 18: MSW Prototype - Waste

Прототип Морського Єдиного Вікна
Maritime Single Window Prototype

UPLOAD

DOWNLOAD

Port

Ships

Crew

Passengers

Voyage

Ship stores

Crew effects

Cargo

Health

Dangerous goods

Security

Waste

Waste information

Are you delivering all,some or none of your waste into port reception facility?

Last port and date when ship-generated waste was delivered

Port

Date
27.06.2022

Waste items

Seq	Waste Type	Waste Description(when relevant)	Waste to be delivered(m3)	Maxin
1				

Source: The authors

Information integration

Uploading documents

In addition to the possibility of directly entering information into the Prototype in an interactive mode, two integration possibilities were tested, as shown on Figure 16.

Figure 19: MSW Prototype - Upload

UPLOAD

Upload XML document

Upload Excel document

Source: The authors

- Upload XML document
This option allows users to upload information into the prototype from the XML files, created in the prototype earlier or in the external system for integration.
- Upload Excel document

This option allows users to upload information into the prototype from the spreadsheets, based on the EMSA templates¹⁴.

Creation of XML document

There is an option to generate XML documents from the information provided to the prototype. For the purposes of this study, we tested the possibility to generate electronic documents in both data models - UN/CEFACT and EMSA.

5.2.2. Cross Border Management Converter Prototype

Second prototype is focused on converting transport documents, harmonized with the UN/CEFACT MMT RDM, to the Customs data model. Prototype is aimed to help public authorities implement electronic information exchange systems. It implements transformation of the trade and transport documents, harmonized with UN/CEFACT ISCDM and MMT RDM to the WCO DM and EU CDM datasets based on the UN/CEFACT CBM RDM.

The prototype consists from the list of shipments (for example there were road transport shipment used):

Figure 20: CBM Converter Prototype - List of shipments

CBM Converter Prototype				
ID	Truck number	Country	Nº of document	Date of document
1	111	Ukraine	123	01.04.2021
2	222	Ukraine	456	10.08.2020
				1-2 of 2 < >
Prototype is aimed to help public authorities implement electronic information exchange systems. Cross Border Management Converter Prototype implements transformation of the trade and transport documents, harmonized with UN/CEFACT ISCDM and MMT RDM to the WCO DM and EU CDM datasets based on the UN/CEFACT CBM RDM.				

Source: The authors

For each shipment several views (datasets) are available. For task of current assessment there are next datasets:

- CMR
- Invoice

¹⁴ <http://www.emsa.europa.eu/emsw2/emsw-manuals.html>

CMR

Figure 21: CBM Converter Prototype – CMR

CMR

Invoice

CMR information

Sender details

ID:

Language

Name:

Tax Registration ID:

Document details

Number of document:

Date of document
27.06.2022

Remarks:

Registered Tax/TypeCode:

Defined contract details

Name:

Mobile telephone:

Email:

Postcode:

Street:

City:

Country

Country subdivision:

Consignee details

ID:

Language

Name:

Tax Registration ID:

Carrier details

ID:

Language

Name:

Tax Registration ID:

Defined contract details

Name:

Mobile telephone:

Email:

Postcode:

Street:

City:

Country

Country subdivision:

Defined contract details

Name:

Mobile telephone:

Email:

Postcode:

Street:

City:

Country

Country subdivision:

UNTTTC| Project report

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Place and date of taking over the goods		Successive Carrier details				
Date 27.06.2022	Name:	ID:	Language			
Country	Name:					
	Tax Registration ID:	Registered Tax/TypeCode:				
Place and date of delivery the goods		Defined contract details				
Date 27.06.2022	Name:	Name:	Mobile telephone:			
Country		Email:	Postcode:			
		Street:	City:			
	Country	Country subdivision:				
Place and date of delivery the goods		Carriers reservations and observations:				
Date 27.06.2022	Name:	Reservation/observation:	Reservation/observation:			
Country		Reservation/observation:				
Documents attached						
NR	Type	Remarks	Date			
1						
Supply Chain Consignment						
Gross weight (total):		Volume (total):				
COD amount:						
Consignment						
NR	Gross weight	Volume	Nature of the goods	Number of packages	Method of packing	Marks and Nos.
1						
Established in		Truck:	Trailer:			
Sender's instruction:						

Source: The authors

Invoice

Figure 22: CBM Converter Prototype - Invoice

CMR

Invoice

CBM Converter Prototype

UPLOAD

DOWNLOAD

Invoice information

Number of document:

Date of document:
27.06.2022

Sender details

ID:

Name:

Language

Tax Registration ID:

Registered Tax/TypeCode:

Defined contract details

Name:

Mobile telephone:

Email:

Postcode:

Street:

City:

Country

Country subdivision:

Buyer details

ID:

Name:

Language

Tax Registration ID:

Registered Tax/TypeCode:

Defined contract details

Name:

Mobile telephone:

Email:

Postcode:

Street:

City:

Country

Country subdivision:

Trade line items

NR	Name	Description	Net weight	Gross weight	Class Code	Origin Country	Charge Amount
1							

+ ADD ROW

DELETE ROW

Related Consignment		
Gross Weight:	Net Weight:	Package Quantity:
Used Logistics Transport Means:	Occurrence 27.06.2022, 12:30	
Due Payable Amount:	Currency	
Payee Party. Creditor Financial Account		
IBAN:	Account:	
Trade Tax		
Exemption Reason Code:	Trade Payment Terms:	

Source: The authors

Information integration

Uploading documents

In addition to the possibility of directly entering information into the Prototype in an interactive mode, it is possible to upload information into the prototype from the XML files, created in the prototype earlier or in the external system for integration. The documents should comply with the UN/CEFACT schema for particular documents.

Creation of XML document

There is an option to generate XML documents from the information provided to the prototype. For the purposes of this study, we tested the possibility to generate electronic documents in both data models - UN/CEFACT and WCO.

6. Examples of documents implemented

Documents used for the assessment were implemented in electronic form (XML), based on the mapping, performed on the previous step and UN/CEFACT guidelines for XML naming and design rules.

Examples of the documents in XML are provided in Annex III.

7. Conclusions and project propositions

Current assessment is one in the series of projects, focused on providing semantic interoperability through the whole supply chain. Current project focuses on the bridge between transport and Customs worlds to provide a way for seamless one-stop data sharing during the shipment stage of the Buy-Ship-Pay process.

The deliverables of the project show the clear way forward to provide the possibility of transforming data from the transport data sets into the Customs dataset based on the UN/CEFACT data models hierarchy.

As a result, set of recommendation for the practical application of the approach proposed is prepared:

7.1. Technical recommendations

1. The Central Customs Authority of the Republic of Azerbaijan (AR) is recommended to develop and provide electronic services for receiving and processing information based on transport documents within the framework of international standards (WCO and UNCEFACT data models).
2. It is recommended to harmonize the code lists and representations of international standards (WCO and UNCEFACT data models) with the data of the Customs system of the Azerbaijan Republic.
3. It is recommended that the data obtained through these services be adapted for use in Customs systems and as an alternative to import summary declarations.
4. It is recommended to determine the rules for the exchange of information between the Customs service and representatives of transport companies/associations/Government structures, depending on the type of transport and the conditions for passing through Customs procedures.
5. It is recommended to develop mechanisms for verifying the compliance of the data provided by transport companies and ensure that these data are authenticated with Electronic Digital Signature (EDS) or in another way to give it legal significance.

7.2. Legislative recommendations

1. It is recommended to eliminate legal and regulatory barriers to accept information based on transport documents within the framework of international standards (WCO and UNCEFACT data models) and use this information as legally significant documents to promote electronic (paperless) exchange of information.
2. It is recommended to develop rules for providing, changing and deleting information within the framework of the legislation of the Republic of Azerbaijan, including formats and cardinalities.
3. It is recommended to remove the sanctions provided for in case of non-submission of summary import declarations for cargo owners in case of submission of information based on transport documents within the framework of international standards (WCO and UNCEFACT data models).
4. Joining the amendment protocol to the Convention On Road Transport (e-CMR) is recommended.

7.3. Organizational recommendations

1. It is recommended to organize interaction between the Customs service of the Azerbaijan Republic with the Government structures, agencies and associations responsible for the movement of goods on a particular mode of transport.
2. It is recommended to optimize the internal procedures in these structures on the basis of the global international standards for ensuring interoperability both between modes of transport as with the Customs. In particular, for maritime transport the prototype of the Maritime Single Window can be used as a template.
3. It is recommended to carry out work on informing and organizing the work of representatives of foreign transport companies that are not members of resident associations of the AR, but carry out transportation activities in the territory of the AR. It is also recommended to develop a simplified mechanism for providing trusted cross border information for such companies (the reason is the lack of an EDS).
4. As one of the lessons learned, it is strongly recommended to have a leading organization (in most of the cases it can be the Customs) in the entire process.

7.4. Remark on legally trusted cross border document exchange

The application of the data sharing approach in a real-world environment requires answers on the stack of questions, where semantic interoperability is the only one. These are:

- technical interoperability
- process interoperability
- trust

The technical interoperability is regulated by the W3C, IETF, regional and national authorities.

The process interoperability is covered by the information models, widely developed by the industries. Well known examples of such models are DCSA, IATA, FIATA FBL, and also European data models - EU CDM for Customs and EMSWe for maritime.

Trust is the most complex question when there is about the cross border interaction. The high-level regulations are provided by the United Nations Commission On International Trade Law (UNCITRAL) as a Model Law on Electronic Transferable Records¹⁵. The Model Law on Electronic Transferable Records (MLETR) aims to enable the legal use of electronic transferable records both domestically and across borders. The MLETR applies to electronic transferable records that are functionally equivalent to transferable (paper-based) documents.

At the same time the MLETR is rather framework rather than an implementation guide. Traditional solutions based on the electronic digital signatures with national certification authorities don't work well in international trade. Moreover, they produce a new set of issues due to technical, semantic and trust interoperability of the signatures itself.

The solution proposed by the leading international organizations is Verifiable Credentials and Distributed Identifiers¹⁶. This approach is actively supported by the UN/CEFACT¹⁷, and also by other - The European Blockchain Services Infrastructure (EBSI)¹⁸, Inter-American Development Bank¹⁹ and so on.

¹⁵ https://uncitral.un.org/en/texts/ecommerce/modellaw/electronic_transferable_records

¹⁶ <https://www.w3.org/TR/vc-data-model/>

¹⁷ https://unece.org/sites/default/files/2022-06/010_Verifiable-Credentials-CBT.pdf

¹⁸ <https://ec.europa.eu/digital-building-blocks/wikis/display/EBSIDOC/EBSI+Verifiable+Credentials+Playbook>

Such an approach could be the silver bullet in the cross-border interaction in situations of the lack of trust between parties. The outcomes are:

- Full and rapid digitization of all exports without any dependency on trading partner readiness.
- Traceability through the supply chain.
- Automated compliance and risk.

At the same time, the national authorities keep the whole control on the process and become so called Trust Anchors, that serve like a transparent roots of trust hierarchy for data, documents and processes they are responsible for.

¹⁹ <https://publications.iadb.org/en/lacchain-id-framework-set-recommendations-blockchain-based-interoperable-privacy-preserving>

Annexes

8. Annex I. Original documents used for mappings and conversions

CMR

1 Copy for sender نسخه فرستنده

1 Sender (name, address, country) فرستنده (نام، آدرس، کشور) IRAN MEK/SHAL ALIZ/ESHAVARZI BY ORDER TRADING EI		INTERNATIONAL CONSIGNMENT NOTE راهنامه بین المللی CMR No 101457 This carriage is subject, notwithstanding any clause to the contrary, to the convention on the contract for the international carriage of goods by road (CMR) این راهنامه علیه هر شرط مغایری تابع کنوانسیون حمل و نقل جاده ای (CMR) می باشد															
2 Consignee (name, address, country) گیرنده (نام، آدرس، کشور) BAKI BINAKOPR OGHL NI, EV 4Z		16 Carrier (name, address, country) حمل کننده (نام، آدرس، کشور) PELO Suite No. 34848 Tel: (+98) 17 Success															
3 Place and delivery of the goods (place, country) محل تحویل کالا (محل، کشور) AZERBAIJAN CIF BAKU		17 Success حمل کننده بعد															
4 Place and date of taking over the goods (place, country, date) محل و تاریخ بازگیری (محل، کشور، تاریخ) IRAN ASTARA 13.04.2022		18 Carrier's reservations and observations توضیحات و ملاحظات حمل کننده TRUCK NO: 68B1 MR.MEIR															
5 Documents attached اسناد ضمیمه INV NO: 225																	
6 Marks and Nos. علامات و شماره ها IN BULK	7 Number of packages تعداد بسته ها DASH DUZ SANAYE UCHUN QIADI UCHUN YARARSIZ HS CODE: 2501005100	8 Method of packing نوع بسته بندی 9 Nature of the goods نوع کال	10 Statistical number شماره آماری 11 Gross weight in kg وزن ناخالص (کیلوگرم) 28000KGS														
		12 Volume in m3 حجم (متر مکعب)															
Class Number Letter (ADR)																	
13 Sender's instructions دستورات فرستنده		19 Special agreements توافق های خاص 20 To be paid by: <table border="1"> <tr> <td>Sender</td> <td>گیرنده</td> </tr> <tr> <td>Carriage charges</td> <td>کرایه حمل</td> </tr> <tr> <td>Deductions</td> <td>کسورات</td> </tr> <tr> <td>Balance</td> <td>باقیمانده</td> </tr> <tr> <td>Suppl. charges</td> <td>مصارف اضافی</td> </tr> <tr> <td>Other charges</td> <td>سایر مصارف</td> </tr> <tr> <td>Total</td> <td>جمع</td> </tr> </table>		Sender	گیرنده	Carriage charges	کرایه حمل	Deductions	کسورات	Balance	باقیمانده	Suppl. charges	مصارف اضافی	Other charges	سایر مصارف	Total	جمع
Sender	گیرنده																
Carriage charges	کرایه حمل																
Deductions	کسورات																
Balance	باقیمانده																
Suppl. charges	مصارف اضافی																
Other charges	سایر مصارف																
Total	جمع																
14 Instructions as to payment for carriage دستور در مورد پرداخت کرایه <input type="checkbox"/> carriage paid پیشگرایه <input type="checkbox"/> carriage forward پسگرایه		21 Established in on محل و تاریخ صدور															
22 Signature and stamp of the sender امضاء و مهر فرستنده		23 Signature and stamp of the carrier امضاء و مهر گیرنده 24 Goods received تاریخ و محل دریافت کالا Place on امضاء و مهر گیرنده کالا															

The spaces framed with heavy lines must be filled in by the carrier. To be completed on the sender's responsibility 1-15 including 19-21+22

[illegible]

YIWU H.
RM301 3RD FLOOR

.,LTD.
WU ZHEJIANG

COMMERCIAL INVOICE

TO:VE MC
ADD:AZ1009,BAKU CITY
TAX ID:140

INVOICE:2022V-XJQT-F0055

14

DATE: FEB.28.2022


CONTAINER.NO:SL 8

From: GUANZHOU CHINA To:BAKU AZERBAIJAN

Marks & Nos	DECRPTIONS	QUANTITY	UNIT	PRICE(USD)	Amount(USD)
CIF BAKU					
WOM		3 CTNS	3	4 USD	2 USD
CHIL		3 CTNS	3	2 USD	5 USD
MEN		4 CTNS	3	6 USD	3 USD
WOM		6 CTNS	2	0 USD	0 USD
MEN		7 CTNS	4	4 USD	9 USD
MEN		2 CTNS	4	1 USD	9 1 USD
MEN		1 CTNS	3	3 USD	3 3 USD
MEN		1 CTNS		7 USD	7 USD
MEN		1 CTNS	2	7 USD	2 7 USD
MEN		1 CTNS	2	4 USD	2 4 USD
MEN		1 CTNS	3	9 USD	3 9 USD
MEN		2 CTNS	3	2 USD	6 3 USD
WOM		1 CTNS	4	7 USD	4 7 USD
MEN		1 CTNS	4	6 USD	4 5 USD
CHIL		1 CTNS	4	2 USD	4 2 USD
MEN		1 CTNS	3	6 USD	3 5 USD
MEN		1 CTNS	4	5 USD	4 5 USD
MEN		2 CTNS	3	9 USD	7 3 USD

义乌
YIWU

Bill of Lading

Shipper SAI CO SAI ME OF INC IST BLU ISTANBUL		Bill of lading NO. 1406	
Consignee GRI NAI BAKU / AZERBAIJAN VOEN : 11 1		MI ST . NO : 1	
Notify PARTY: THE SAME AS CONSIGNEE		ORIGINAL	
Carrier D CO Flag IRAN			
Vessel M/V "TA" "VOY NO : 14001" Port of loading BANDAR ASTARA / IRAN			
Port of discharge HOVSAN / AZERBAIJAN Number of Originals B/L 3			
Marks and number Kind of packages and description of goods Number of bundles weight/Measurement			
25 JUMBO BAGS 1250 KG		POLYETHYLENE 3840UA HS CODE : 3901209000	
		GW : 31500 KG NW : 31530 KG	
Freight and Charge : FREIGHT PAYABLE AS PER C/P		Shipped on board of the vessel in apparent good order and condition, unless noted herein, at the port of loading for carriage to the port of discharge or so near thereto as she may safely get, always afloat, and delivered as mentioned above. In accept in this Bill of Lading the Merchant accepts and agrees to all stipulations, exceptions and conditions on both pages, whether written, printed, stamped or otherwise incorporated. One of these Bills of Lading must be surrendered duly endorsed in exchange for the goods. In witness whereof number of stated above original Bs/L have been signed: one of which being accomplished the other(s) to be void.	
		Place and date of issue Bandar Astara,IRAN 2022.04.12	Master's stamp and signature M/ Me 

SMGS

1. ԳՐԱԲԱՆԻ ՔԱՐԿԱՆԻ (ՔԱՐԿԱՆԻՆԻ) Оригинал накладной (Для получателя)		268 139030		2. ՀԱՅԴԵՐՈՒ ՆԱԳԾԻՆ/ՏԱՆՈՒՄ ՍՏԱՐԱՎԵՐԱՆԻ ГР Ж/Д Ст. ПОТИ		00616021		28 572107	
3. ՀԱՅԴԵՐՈՒ ՆԱԳԾԻՆ/ՏԱՆՈՒՄ ՍՏԱՐԱՎԵՐԱՆԻ ГРУЗИЯ - АЗЕРБАЙДЖАН П/П № 773695 Доп.Дор.Ведомость-2шт.		4. ՀԱՅԴԵՐՈՒ ՆԱԳԾԻՆ/ՏԱՆՈՒՄ ՍՏԱՐԱՎԵՐԱՆԻ 031		5. ՀԱՅԴԵՐՈՒ ՆԱԳԾԻՆ/ՏԱՆՈՒՄ ՍՏԱՐԱՎԵՐԱՆԻ 57 556208		6. ՀԱՅԴԵՐՈՒ ՆԱԳԾԻՆ/ՏԱՆՈՒՄ ՍՏԱՐԱՎԵՐԱՆԻ Портальный станция переклада:		7. ՀԱՅԴԵՐՈՒ ՆԱԳԾԻՆ/ՏԱՆՈՒՄ ՍՏԱՐԱՎԵՐԱՆԻ ГР Ж/Д ГАРДАБАНИ(ЭКСП.) (563606) АЗ Ж/Д БЕЮК-КЯСИК(ЭКСП.) (558701)	
8. ՀԱՅԴԵՐՈՒ ՆԱԳԾԻՆ/ՏԱՆՈՒՄ ՍՏԱՐԱՎԵՐԱՆԻ АЗ Ж/Д Ст. ГЯНДЖА		9. ՀԱՅԴԵՐՈՒ ՆԱԳԾԻՆ/ՏԱՆՈՒՄ ՍՏԱՐԱՎԵՐԱՆԻ П		10. ՀԱՅԴԵՐՈՒ ՆԱԳԾԻՆ/ՏԱՆՈՒՄ ՍՏԱՐԱՎԵՐԱՆԻ 70		11. ՀԱՅԴԵՐՈՒ ՆԱԳԾԻՆ/ՏԱՆՈՒՄ ՍՏԱՐԱՎԵՐԱՆԻ 4		12. ՀԱՅԴԵՐՈՒ ՆԱԳԾԻՆ/ՏԱՆՈՒՄ ՍՏԱՐԱՎԵՐԱՆԻ 22000	
13. ՀԱՅԴԵՐՈՒ ՆԱԳԾԻՆ/ՏԱՆՈՒՄ ՍՏԱՐԱՎԵՐԱՆԻ ЖМЫХИ ГНГ-23040000		14. ՀԱՅԴԵՐՈՒ ՆԱԳԾԻՆ/ՏԱՆՈՒՄ ՍՏԱՐԱՎԵՐԱՆԻ НАСЫПЮ		15. ՀԱՅԴԵՐՈՒ ՆԱԳԾԻՆ/ՏԱՆՈՒՄ ՍՏԱՐԱՎԵՐԱՆԻ НЕТТО 50140		16. ՀԱՅԴԵՐՈՒ ՆԱԳԾԻՆ/ՏԱՆՈՒՄ ՍՏԱՐԱՎԵՐԱՆԻ 7		17. ՀԱՅԴԵՐՈՒ ՆԱԳԾԻՆ/ՏԱՆՈՒՄ ՍՏԱՐԱՎԵՐԱՆԻ ФА3-77 11. т/пл 4935529-539	
18. ՀԱՅԴԵՐՈՒ ՆԱԳԾԻՆ/ՏԱՆՈՒՄ ՍՏԱՐԱՎԵՐԱՆԻ ОТПРАВИТЕЛЬ		19. ՀԱՅԴԵՐՈՒ ՆԱԳԾԻՆ/ՏԱՆՈՒՄ ՍՏԱՐԱՎԵՐԱՆԻ НА ВЕСАХ		20. ՀԱՅԴԵՐՈՒ ՆԱԳԾԻՆ/ՏԱՆՈՒՄ ՍՏԱՐԱՎԵՐԱՆԻ ПОТИ 572107 ГАРДАБАНИ (ЭКСП.) 563606 БЕЮК-КЯСИК (ЭКСП.) 558701 ГЯНДЖА 556208		21. ՀԱՅԴԵՐՈՒ ՆԱԳԾԻՆ/ՏԱՆՈՒՄ ՍՏԱՐԱՎԵՐԱՆԻ ПОТИ 572107 ГАРДАБАНИ (ЭКСП.) 563606 БЕЮК-КЯСИК (ЭКСП.) 558701 ГЯНДЖА 556208		22. ՀԱՅԴԵՐՈՒ ՆԱԳԾԻՆ/ՏԱՆՈՒՄ ՍՏԱՐԱՎԵՐԱՆԻ ПОТИ 572107 ГАРДАБАНИ (ЭКСП.) 563606 БЕЮК-КЯСИК (ЭКСП.) 558701 ГЯНДЖА 556208	
23. ՀԱՅԴԵՐՈՒ ՆԱԳԾԻՆ/ՏԱՆՈՒՄ ՍՏԱՐԱՎԵՐԱՆԻ ПОТИ 572107 ГАРДАБАНИ (ЭКСП.) 563606 БЕЮК-КЯСИК (ЭКСП.) 558701 ГЯНДЖА 556208		24. ՀԱՅԴԵՐՈՒ ՆԱԳԾԻՆ/ՏԱՆՈՒՄ ՍՏԱՐԱՎԵՐԱՆԻ ПОТИ 572107 ГАРДАБАНИ (ЭКСП.) 563606 БЕЮК-КЯСИК (ЭКСП.) 558701 ГЯНДЖА 556208		25. ՀԱՅԴԵՐՈՒ ՆԱԳԾԻՆ/ՏԱՆՈՒՄ ՍՏԱՐԱՎԵՐԱՆԻ ПОТИ 572107 ГАРДАБАНИ (ЭКСП.) 563606 БЕЮК-КЯСИК (ЭКСП.) 558701 ГЯНДЖА 556208		26. ՀԱՅԴԵՐՈՒ ՆԱԳԾԻՆ/ՏԱՆՈՒՄ ՍՏԱՐԱՎԵՐԱՆԻ ПОТИ 572107 ГАРДАБАНИ (ЭКСП.) 563606 БЕЮК-КЯСИК (ЭКСП.) 558701 ГЯНДЖА 556208		27. ՀԱՅԴԵՐՈՒ ՆԱԳԾԻՆ/ՏԱՆՈՒՄ ՍՏԱՐԱՎԵՐԱՆԻ ПОТИ 572107 ГАРДАБАНИ (ЭКСП.) 563606 БЕЮК-КЯСИК (ЭКСП.) 558701 ГЯНДЖА 556208	
28. ՀԱՅԴԵՐՈՒ ՆԱԳԾԻՆ/ՏԱՆՈՒՄ ՍՏԱՐԱՎԵՐԱՆԻ ПОТИ 572107 ГАРДАБАНИ (ЭКСП.) 563606 БЕЮК-КЯСИК (ЭКСП.) 558701 ГЯНДЖА 556208		29. ՀԱՅԴԵՐՈՒ ՆԱԳԾԻՆ/ՏԱՆՈՒՄ ՍՏԱՐԱՎԵՐԱՆԻ ПОТИ 572107 ГАРДАБАНИ (ЭКСП.) 563606 БЕЮК-КЯСИК (ЭКСП.) 558701 ГЯНДЖА 556208		30. ՀԱՅԴԵՐՈՒ ՆԱԳԾԻՆ/ՏԱՆՈՒՄ ՍՏԱՐԱՎԵՐԱՆԻ ПОТИ 572107 ГАРДАБАНИ (ЭКСП.) 563606 БЕЮК-КЯСИК (ЭКСП.) 558701 ГЯНДЖА 556208		31. ՀԱՅԴԵՐՈՒ ՆԱԳԾԻՆ/ՏԱՆՈՒՄ ՍՏԱՐԱՎԵՐԱՆԻ ПОТИ 572107 ГАРДАБАНИ (ЭКСП.) 563606 БЕЮК-КЯСИК (ЭКСП.) 558701 ГЯНДЖА 556208		32. ՀԱՅԴԵՐՈՒ ՆԱԳԾԻՆ/ՏԱՆՈՒՄ ՍՏԱՐԱՎԵՐԱՆԻ ПОТИ 572107 ГАРДАБАНИ (ЭКСП.) 563606 БЕЮК-КЯСИК (ЭКСП.) 558701 ГЯНДЖА 556208	

10. Annex II. Results of the mapping

Invoice for Customs_AZ.xlsx
eCMR_AZ.xlsx
Maritime BL_AZ.xlsx
eCMR_AZ_EUCDM_WCO1.xlsx
SMGS Consignment Note_EEU.xlsx

11. Annex III. XML documents examples

CMR_example.xml
Invoice_example.xml