PILOT PROJECT
FOR USE OF e-CIM/SMGS CONSIGNMENT NOTE
ALONG SELECTED TRACECA ROUTES



High-Level Meeting on
Deepening Digitalization of International Rail Transport in Asia-Pacific
13 - 15 May 2025, Xi'an, China

TRACECA

KEY DATES

May 1993
Initiating of the TRACECA Programme

September 8, 1998
Signature of the Basic Multilateral Agreement on International Transport for Development of the Europe-the Caucasus-Asia corridor (MLA)

March 10, 2000
The First Annual Meeting (Conference) of the Intergovernmental Commission TRACECA on the transport corridor "Europe-the Caucasus-Asia"

February 21, 2001
Official opening of the office of the Permanent Secretariat of the IGC TRACECA in Baku (Azerbaijan)

The development of economic relations, trade and transport communication in the regions of Europe, the Black Sea, the Caucasus, the Caspian Sea and Asia – one of the main objectives

Intergovernmental Commission

Decision-making structure – Competent Ministries

Permanent Secretariat

Executive structure – Implementation and Monitoring



An official opening ceremony of the office in Baku (left-right) *Minister of Foreign Affairs and representative of Swedish presidency in EU* ***Anna Lindh***, *the President of the Republic of Azerbaijan* ***Heydar Aliyev***, *Commissioner for External Relations* ***Christopher Patten***, *Secretary General/ High Representative of CFSP* ***Javier Solana***

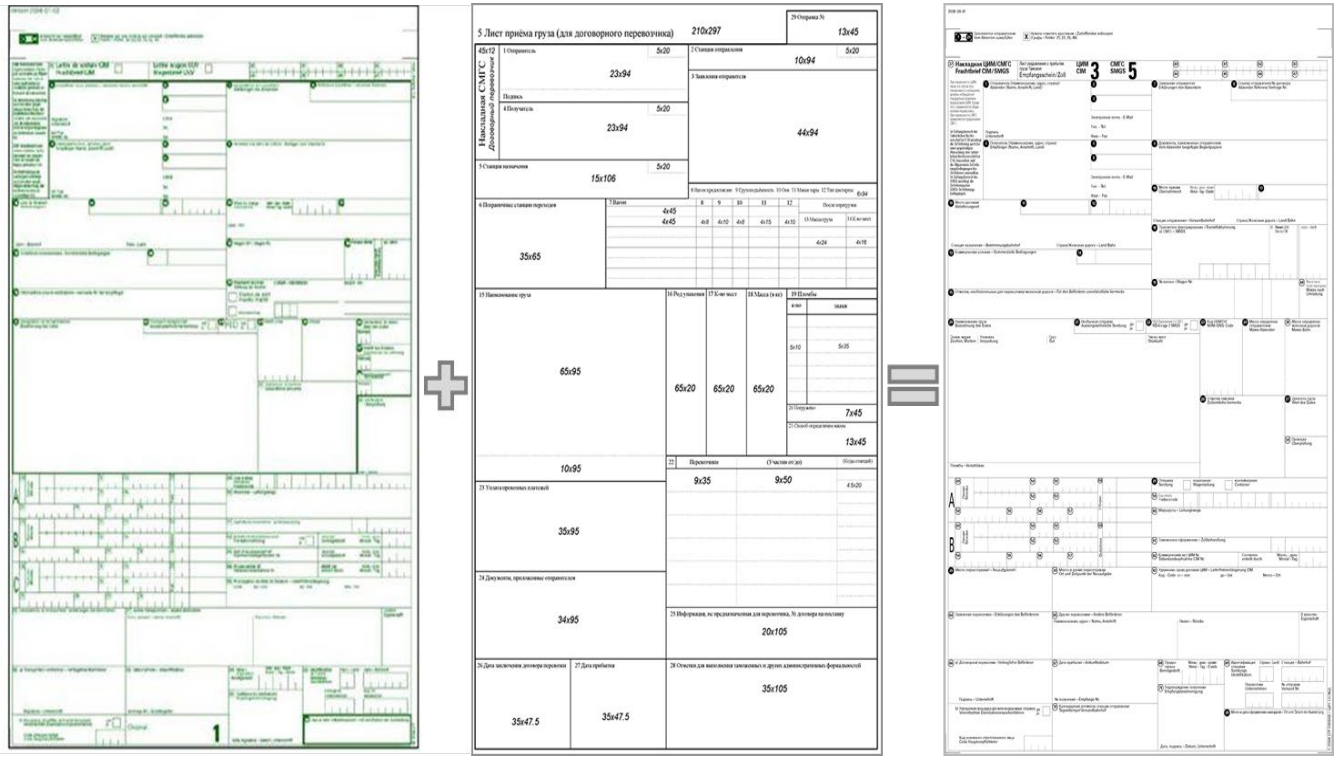
Permanent Representatives (National Secretaries) in 14 member states

National structure – Focal and Coordinating point between national competent authorities/organizations and the Permanent Secretariat

Rotating Chairmanship



Introduction to the e-CIM/SMGS Pilot Project



CIM + SMGS = CIM/SMGS

1 Joint Workshop

- Use of CIM/SMGS consignment note

(Jun 2022)

Initial Survey

- Survey on use of CIM/SMGS consignment note

(Dec 2022)

2 Joint Workshop

- Use of electronic CIM/SMGS consignment note

(Jan 2023)

3 UN ECE Seminar

- Use of electronic CIM/SMGS consignment note

(May 2023)

Signing MoU between interested railways

- Framework for piloting electronic CIM/SMGS consignment note

(May 2023)

Adoption of Action Plan

- Implementation of Action Plan
- Digitalization of a prototype CIM/SMGS

(2023)

Piloting e-CIM/SMGS (digital twin project)

- Implementation of pilot project
- Testing electronic CIM/SMGS prototype
- Drafting international agreement
- Analyzing supporting documents for further digitalization

(2023-2024)

Adoption of an International Agreement

- Preparing legal basis for use of e-CIM/SMGS CN
- Preparing at national and international level
- Deciding on tools used for information exchange
- Possible piloting for electronic supporting documents
- Conducting internal approval procedures

(2024 - 2025)

Joint OSJD, CIT, UIC, UN ECE & TRACECA activity

(2025)

MoU for organization of e-CIM/SMGS CN pilot project(s)

1. PURPOSE AND PARTICIPANTS

1. Organization of pilot project(s) between **participating railway operators** for use of electronic CIM/SMGS consignment note along selected TRACECA routes.
2. The participants will invite and endeavor to actively include:
   - interested customers (consignors and consignees)
   - carriers in other modes of transport and port terminal operators in the case of multimodal transport operations
   - Customs and other border crossing authorities in their countries.



MoU Signing Ceremony – Baku, 22 May 2023

2. OBJECTIVES

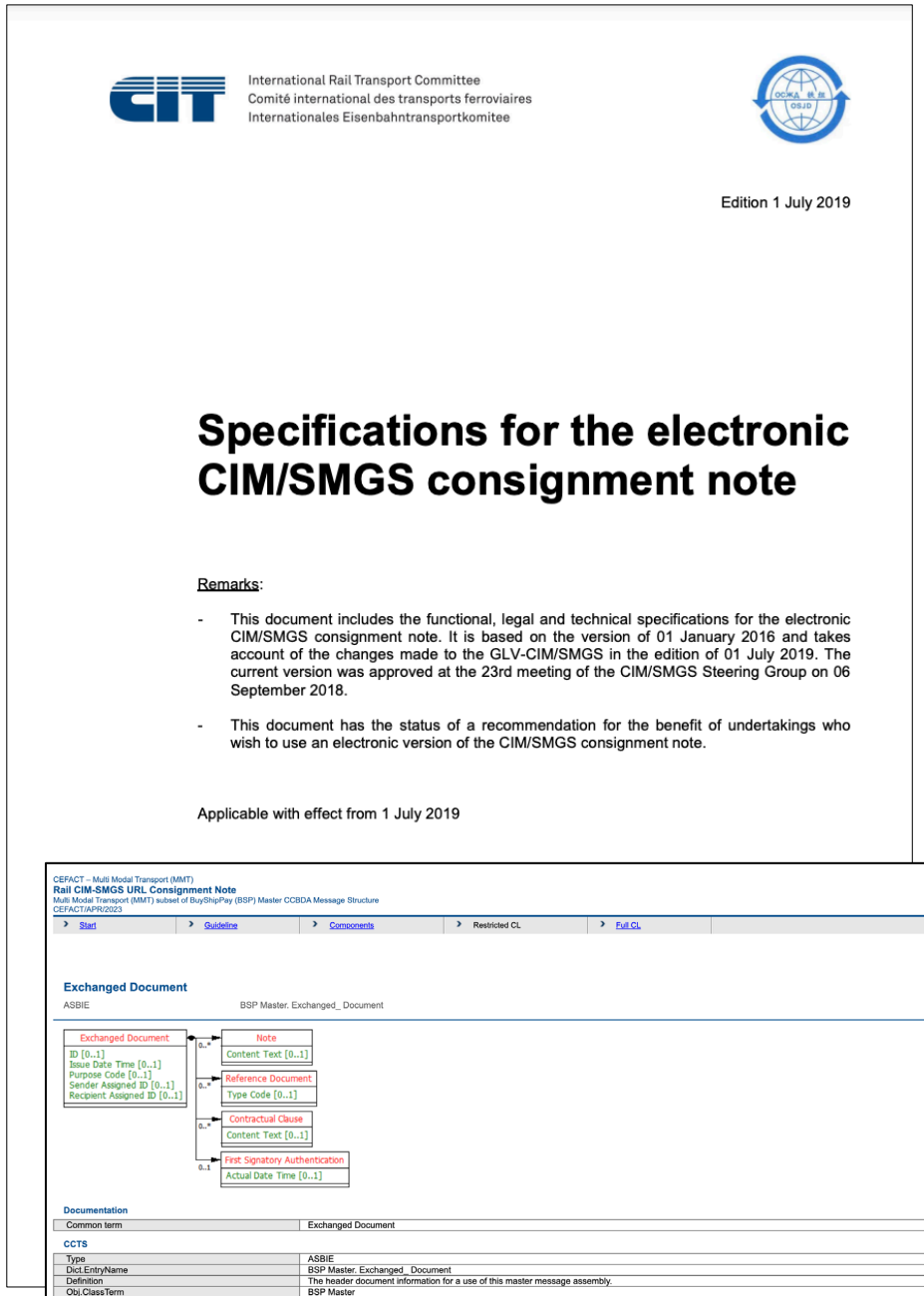
The objectives of the pilot project(s) are:

a) to review the legal environment to be able to fully implement electronic CIM/SMGS consignment note from legal perspective;
b) to analyze operational and organizational issues;
c) to test existing technical (IT) solutions and develop recommendations for potential adjustments / upgrading / development and implementation of other technical (IT) solutions.

3. OUTCOMES

The expected outcomes from the pilot project(s) are:

a) Confirmation of the proof of concept;
b) Indication on reduced railway costs;
c) Indication on decreased railway time at reconsignment points;
d) Indication on improved coordination with transport operators in other modes of transport and simplification of multimodal transport operations;
e) Indication on reduced costs / decreased time for transshipment in multimodal transport operation;
f) Indication on reduced costs / decreased time for Customs and border crossing processing.



International Rail Transport Committee
Comité international des transports ferroviaires
Internationales Eisenbahntransportkomitee

Edition 1 July 2019

Specifications for the electronic CIM/SMGS consignment note

Remarks:

- This document includes the functional, legal and technical specifications for the electronic CIM/SMGS consignment note. It is based on the version of 01 January 2016 and takes account of the changes made to the GLV-CIM/SMGS in the edition of 01 July 2019. The current version was approved at the 23rd meeting of the CIM/SMGS Steering Group on 06 September 2018.
- This document has the status of a recommendation for the benefit of undertakings who wish to use an electronic version of the CIM/SMGS consignment note.

Applicable with effect from 1 July 2019

CEFACT – Multi Modal Transport (MMT)
Rail CIM-SMGS URL Consignment Note
Multi Modal Transport (MMT) subset of BuyShipPay (BSP) Master CCBDA Message Structure
CEFACT/APR/2023

UNECE UN/CEFACT

Start | Guideline | Components | Restricted CL | Full CL

Exchanged Document

ASBIE — BSP Master. Exchanged_ Document

Exchanged Document
ID [0..1]
Issue Date Time [0..1]
Purpose Code [0..1]
Sender Assigned ID [0..1]
Recipient Assigned ID [0..1]

0..* Note — Content Text [0..1]
0..* Reference Document — Type Code [0..1]
0..* Contractual Clause — Content Text [0..1]
0..1 First Signatory Authentication — Actual Date Time [0..1]

Documentation

Common term	Exchanged Document

CCTS

Type	ASBIE
Dict.EntryName	BSP Master. Exchanged_ Document
Definition	The header document information for a use of this master message assembly.
Obj.ClassTerm	BSP Master
Assoc.Obj.ClassQual.	Exchanged
Assoc.Obj.Class	Document
Occurrence	0..1

Publication

UN Identifier	UN01002487

GUIDANCE *(MoU para 8)*

1. **CIM/SMGS Consignment Note Manual** (RU) (EN) (Annex 6 to the SMGS Agreement / GLV-CIM/SMGS) developed jointly by International Rail Transport Committee (CIT) and Organisation for Co-operation between Railways (OSJD)

2. **Specifications for the electronic CIM/SMGS consignment note** (RU) (EN) developed jointly by International Rail Transport Committee (CIT) and Organisation for Co-operation between Railways (OSJD)

3. **UN/CEFACT standards and artefacts** for the CIM/SMGS consignment note, wagon list and additional documents aligned to the Multimodal Transport Reference Data Model

4. **Relevant Leaflets** of the OSJD Permanent Working Group on Coding and Information Technology (for OSJD domain)

Action Plan for the Pilot Project on use of e-CIM/SMGS consignment note along selected TRACECA routes



- Two-year project (June 2023 – June 2025) (potential extension by June 2026)
- Five parts
  - A. Legal aspects
  - B. Technical (IT aspects)
  - C. Operational & organizational aspects
  - D. Multimodal transport
  - E. Customs & border crossing

Responsibility:

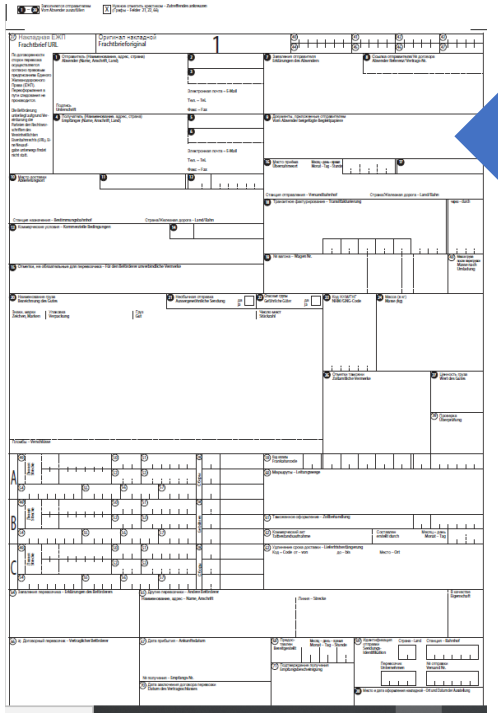
- Pilot Project Working Group (members, national coordinators)

- Sub-Working Group (S-WG) IT experts

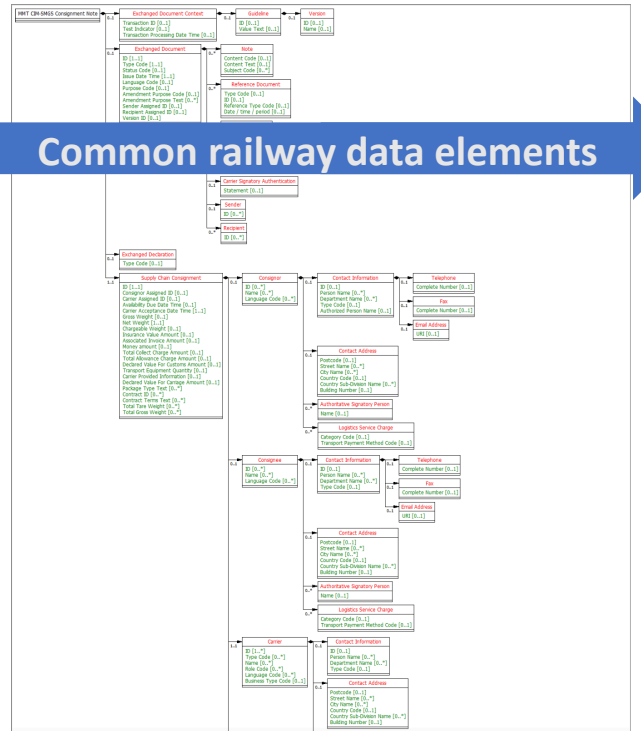
External Support: (coordination, experts) (OSJD, CIT, UIC, UN ECE, UN CEFACT, TRACECA – Secretariat / Shared folder – WhatsApp groups)

Core Data Mapping (UN MMT RDM) and Digital Prototype

CIM/SMGS



CIM/SMGS MMT



Common railway data elements

EDIFACT IFTMIN (SMGS)

IFTMIN

Example message

No.	Tag	Example
01	UNA	UNA:+.? ' UNA:+,? '
02	UNB	UNB+UNOC:3+NO0987654321:30+7080003248381:14+101201:1105+1234567890++CONSIGNOR++1++1'
03	UNH	UNH+1234+IFTMIN:D:04A:UN:BIG14'
04	BGM	BGM+610+70123451234567898+1'
05	CTA	CTA+BK+:EDI dep./ Eva HW'
06	COM	COM+eva.hw@bring.com:EM'
07	DTM	DTM+137:20100810:102'
08	DTM	DTM+234:20100810:102'
09	MOA	MOA+22:4530:NOK'
10	FTX	FTX+PRD+++1020:X'
11	FTX	FTX+SSR+++1076:ME01NO'
12	FTX	FTX+TRR+++DAVA'
13	FTX	FTX+DEL+++Call 911 before delivery'
14	FTX	FTX+AAR+++0022'
15	CNT	CNT+11:9:PCE'
16	GDS	GDS+11'
	SG2	
17	TOD	TOD+5+CC'
	SG2	
18	TOD	TOD+6++EXW:INCOTERMS2010'
19	LOC	LOC+1+3000::139:Drammen+NO'
	SG3	
20	RFF	RFF+CMR:70701020000000034'
	SG3	
21	RFF	RFF+IV:867'
22	DTM	DTM+171:20100923:102'
	SG8	
23	TDT	TDT+20++3++BCS::87'
24	TSR	TSR+ALY'
	SG9	
25	LOC	LOC+202+1000::87:Bring Logistics, Oslo'
	SG11	
26	NAD	NAD+CZ+10009999999::87++Bring IKT:X+Biskop Gunnerusgate 14 A:18 etg.+OSLO++0001+NO'
27	LOC	LOC+202+20000::87'
	SG12	

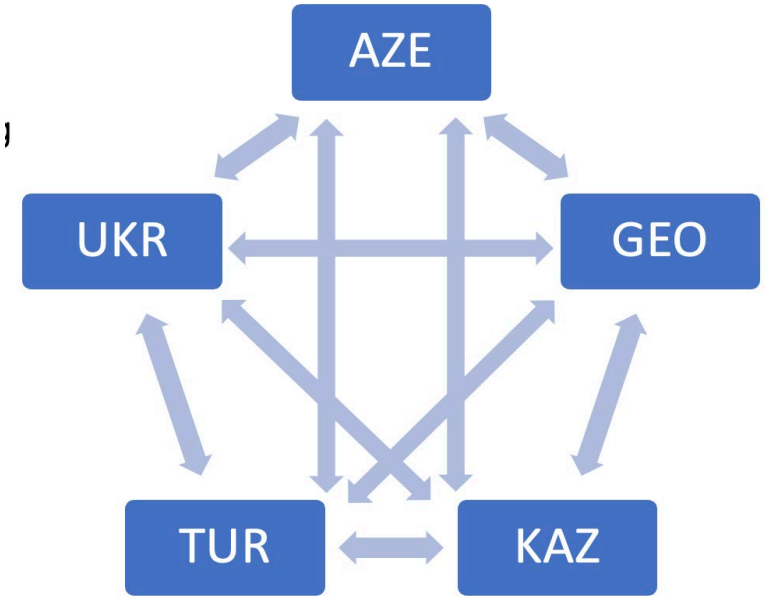
(XML, JSON and XSD files)

```
<?xml version="1.0" encoding="UTF-8"?>
<rsm:MMTCIM-SMGSConsignmentNote xmlns:rsm="urn:un:unece:uncefact:data:standard:MMTCIM-SM
    xmlns:udt="urn:un:unece:uncefact:data:standard:UnqualifiedDataType:100"
    xmlns:qdt="urn:un:unece:uncefact:data:standard:QualifiedDataType:100"
    xmlns:ram="urn:un:unece:uncefact:data:standard:ReusableAggregateBusinessInformationE
  <rsm:ExchangedDocumentContext>
    <ram:SpecifiedTransactionID>XXXXXXXXX</ram:SpecifiedTransactionID>
    <ram:TestIndicator>
      <udt:IndicatorString>XXXXXXXXX</udt:IndicatorString>
    </ram:TestIndicator>
    <ram:ProcessingTransactionDateTime>
      <udt:DateTimeString format="203">XXXXXXXXX</udt:DateTimeString>
    </ram:ProcessingTransactionDateTime>
    <ram:GuidelineSpecifiedDocumentContextParameter>
      <ram:ID schemeAgencyID="288">XXXXXXXXX</ram:ID>
      <ram:Value languageID="XXXXXXXXX">XXXXXXXXX</ram:Value>
      <ram:SpecifiedDocumentVersion>
        <ram:ID>XXXXXXXXX</ram:ID>
        <ram:Name languageID="XXXXXXXXX">XXXXXXXXX</ram:Name>
      </ram:SpecifiedDocumentVersion>
    </ram:GuidelineSpecifiedDocumentContextParameter>
  </rsm:ExchangedDocumentContext>
  <rsm:ExchangedDocument>
    <ram:ID>XXXXXXXXX</ram:ID>
    <ram:TypeCode listAgencyID="6">1</ram:TypeCode>
    <ram:StatusCode listAgencyID="6">4</ram:StatusCode>
    <ram:IssueDateTime>
      <udt:DateTimeString format="203">XXXXXXXXX</udt:DateTimeString>
    </ram:IssueDateTime>
    <ram:LanguageID schemeAgencyID="XXXXXXXXX">XXXXXXXXX</ram:LanguageID>
    <ram:PurposeCode listAgencyID="6">9</ram:PurposeCode>
    <ram:AmendmentPurposeCode listAgencyID="XXXXXXXXX">XXXXXXXXX</ram:AmendmentPurpose
    <ram:Information languageID="XXXXXXXXX">XXXXXXXXX</ram:Information>
    <ram:SenderAssignedID>XXXXXXXXX</ram:SenderAssignedID>
    <ram:RecipientAssignedID>XXXXXXXXX</ram:RecipientAssignedID>
    <ram:VersionID>XXXXXXXXX</ram:VersionID>
    <ram:IncludedNote>
      <ram:ContentCode listAgencyID="XXXXXXXXX">XXXXXXXXX</ram:ContentCode>
      <ram:Content languageID="XXXXXXXXX">NOT FY : TOO IP HAMLE KOMPANI LTD. ABLAYHANA
      <ram:SubjectCode listAgencyID="XXXXXXXXX">XXXXXXXXX</ram:SubjectCode>
    </ram:IncludedNote>
    <ram:ReferenceReferencedDocument>
      <ram:TypeCode listAgencyID="6">the trading pier of JSC KTZ Express for the KMTF fe
should be registered at the Altynkol station. On the territory of Georgia, Azerbaijan or
Express""KTZE-Zapadny".</ram:TypeCode>
      <ram:ID>XXXXXXXXX</ram:ID>
      <ram:ReferenceTypeCode listAgencyID="6">AAA</ram:ReferenceTypeCode>
      <ram:FormattedIssueDateTime>
        <qdt:DateTimeString format="203">XXXXXXXXX</qdt:DateTimeString>
      </ram:FormattedIssueDateTime>
    </ram:ReferenceReferencedDocument>
    <ram:ContractualDocumentClause>
      <ram:Content languageID="XXXXXXXXX">KTZ Express-2770602/876900077-for all order sh
"Kaskortransservice"- LLP "Caspian trans Logistics" on behalf of JSC "KTZ Express",contr
    </ram:ContractualDocumentClause>
    <ram:FirstSignatoryDocumentAuthentication>
      <ram:ActualDateTime>
        <udt:DateTimeString format="203">XXXXXXXXX</udt:DateTimeString>
      </ram:ActualDateTime>
      <ram:Statement languageID="XXXXXXXXX">3474439 1</ram:Statement>
      <ram:IssueLogisticsLocation>
        <ram:Name languageID="XXXXXXXXX">Elmada</ram:Name>
        <ram:CountryID schemeAgencyID="5">AD</ram:CountryID>
      </ram:IssueLogisticsLocation>
    </ram:FirstSignatoryDocumentAuthentication>
    <ram:SecondSignatoryDocumentAuthentication>
      <ram:Statement languageID="XXXXXXXXX">XXXXXXXXX</ram:Statement>
    </ram:SecondSignatoryDocumentAuthentication>
    <ram:SenderTradeParty>
      <ram:ID schemeID="XXXXXXXXX" schemeAgencyID="XXXXXXXXX">XXXXXXXXX</ram:ID>
    </ram:SenderTradeParty>
    <ram:RecipientTradeParty>
      <ram:ID schemeID="XXXXXXXXX" schemeAgencyID="XXXXXXXXX">XXXXXXXXX</ram:ID>
    </ram:RecipientTradeParty>
  </rsm:ExchangedDocument>
  <rsm:ExchangedDeclaration>
    <ram:TypeCode listAgencyID="6">722</ram:TypeCode>
  </rsm:ExchangedDeclaration>
  <rsm:SpecifiedSupplyChainConsignment>
    <ram:ID>XXXXXXXXX</ram:ID>
```

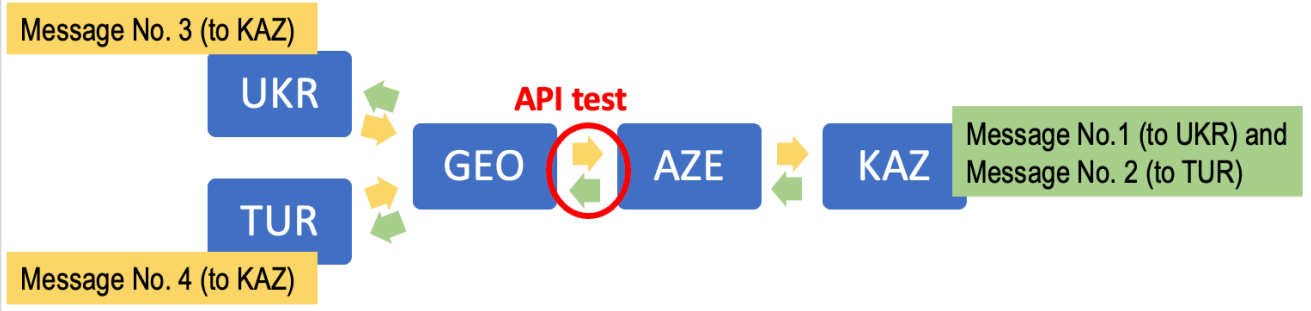
UN / CEFACT experts – Consultant for the pilot project – IT experts from Participating Railways

Virtual e-CIM/SMGS CN Testing

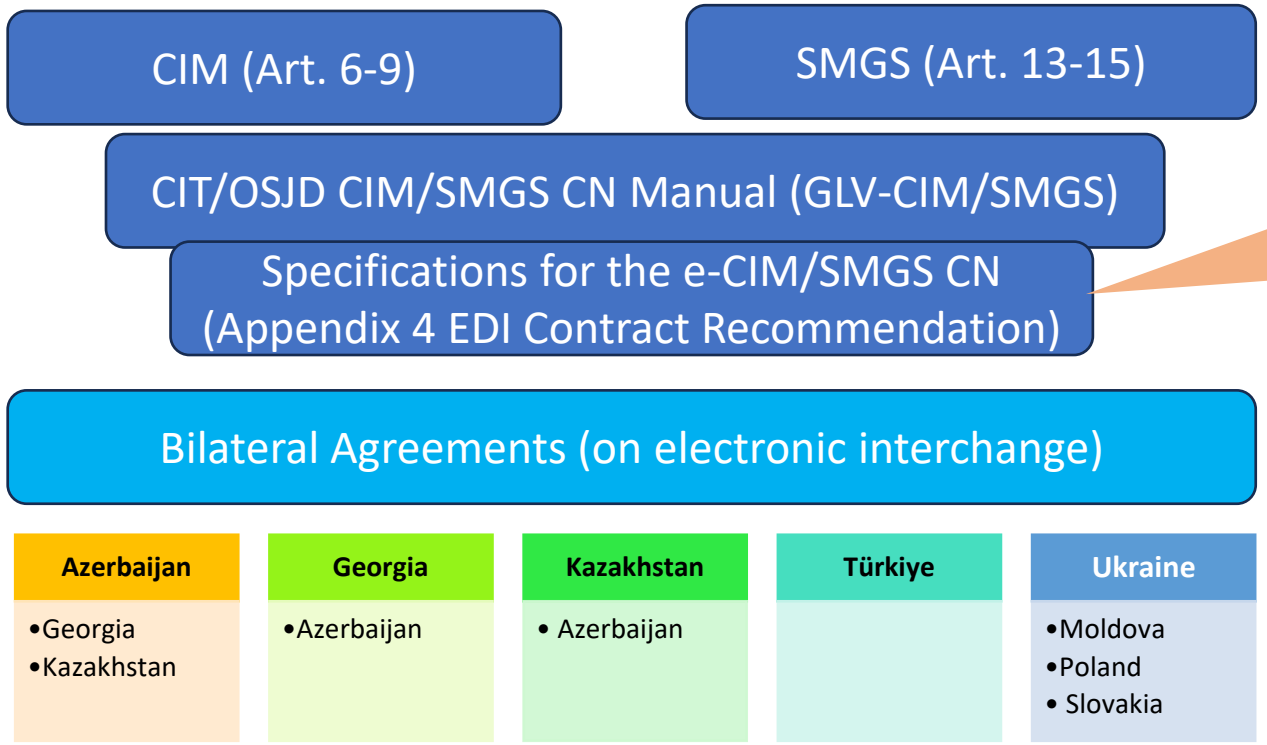
- **First Virtual testing – June 2024**
  - decentralized use of existing railway IT systems and e-CIM/SMGS CN digital prototype
  - e-CIM/SMGS CN XML format could be generated from received samples (if the structure is matching)
  - Analysis of mandatory elements in digital prototype (using OSJD/CIT CIM/SMGS Manual / Specification)
  - need for XML/EDIFACT convertor (connectivity with KAZ)
  - intensify work on automation including development of Application Programming Interfaces (APIs) / Web Service



- **Second Virtual testing – Sept/Oct 2024**



Legal Bases for use of e-CIM/SMGS CN



- ✓ Suitable for EDI contract between
  - customers and carriers and
  - **between carriers**
- ✓ Key boilerplate clauses

- Update existing bilateral agreements and/or draft new bilateral agreements and/or
- **Draft new multilateral agreement**

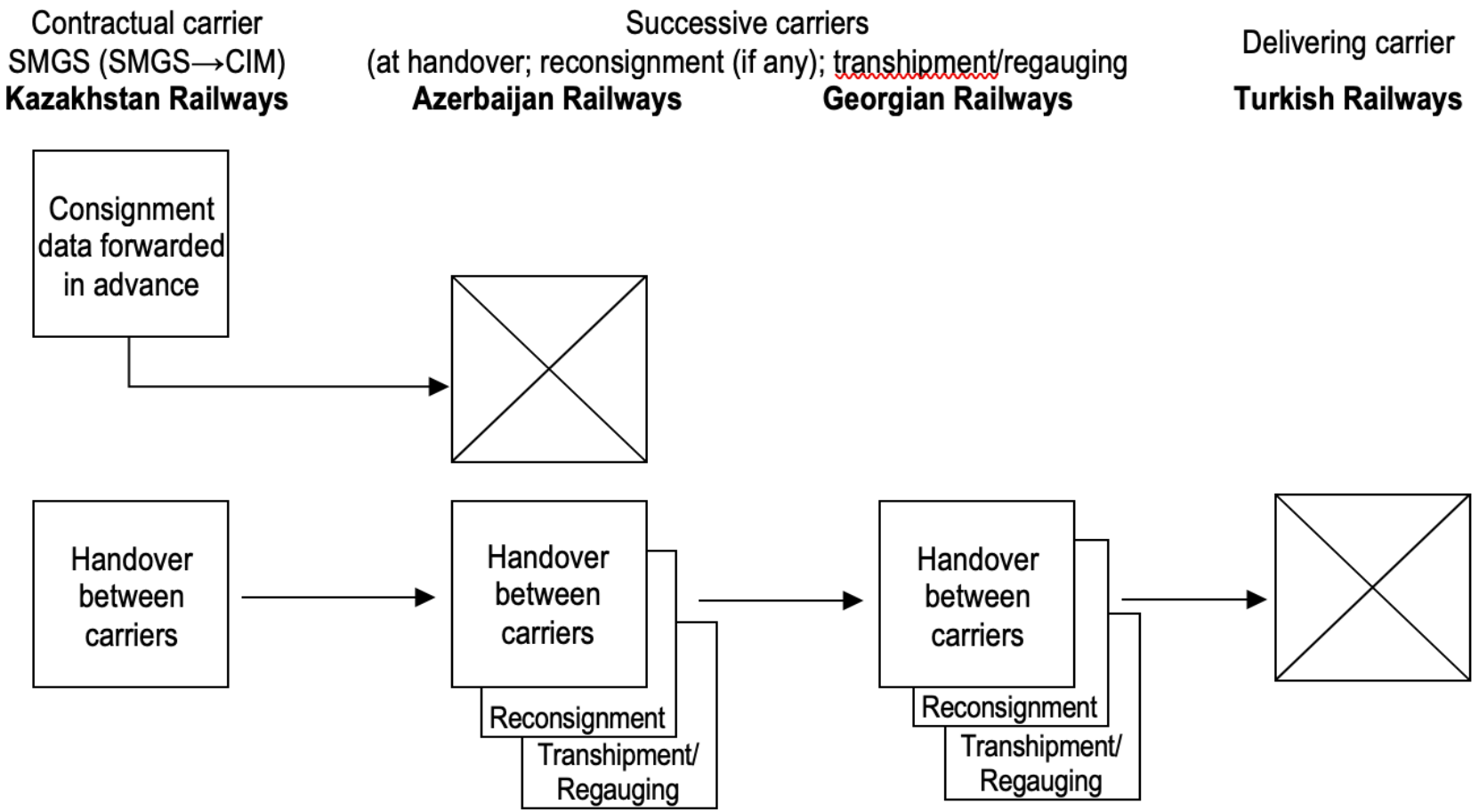
use OSJD/ CIT EDI contract recommendations, best practice from existing bilateral agreements and UN/CEFACT standards

Draft Agreement between the railway operators on electronic data exchange with use of CIM/SMGS Consignment Note

- Scope: CIM/SMGS CN does not cancel / modify current CIM and SMGS system;
- Implementing schedule: phased approach
  - e-CIM/SMGS CN in parallel paper & electronic;
  - introduction of e-CIM/SMGS CN with paperless technology
- Equivalence of the electronic and paper documents
- Content of the electronic CIM/SMGS CN to exchanged:
  - Mandatory, conditional and optional data – App. 2 to the CIM/SMGS CN Manual
  - Specimen – App. 5 to the CIM/SMGS CN Manual
- Electronic signatures and authentication
  - Applicable national legislation of the Party where the contract is concluded
  - Mutual recognition among Parties
- Completion of the CIM/SMGS consignment note
  - Internal procedures for checking completeness & accuracy; keeping original records
  - Technical solutions to maintain integrity (own IT systems of the Parties)

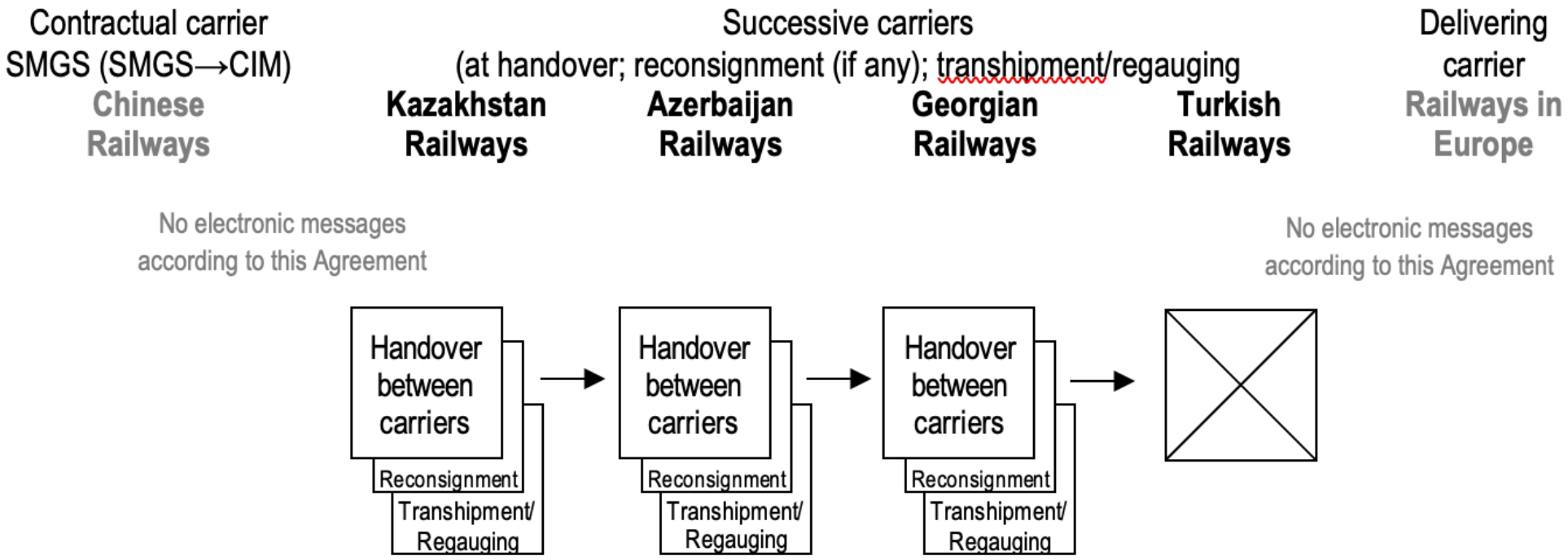
Draft Agreement: Example of Technology of Interaction with Electronic Messages in Phase 1

(Kazakhstan – Azerbaijan – Georgia – Türkiye)



Draft Agreement: Example of Technology of Interaction with Electronic Messages in Phase 1

(China – Kazakhstan – Azerbaijan – Georgia – Türkiye – Europe)



Ongoing / Next steps of e-CIM/SMGS CN pilot project

- **Expanding pilot project - Moldova joined the pilot project** (April/May 2025);
  - potentially other TRACECA countries in future
- **Integration of internal IT railway systems**
  - API between the IT systems of Georgian and Turkish Railways (finalized in Feb 2025);
  - Test of new Web Service for exchange of multiple e-CIM/SMGS CN data (ongoing)
  - API between the IT systems of Georgian and Ukrainian Railways (initiated);
  - XML/EDIFACT converter between Azerbaijan and Kazakhstan Railways (ongoing).
- Finalizing Multilateral Draft Agreement (updated version May 2025)
- Organization of **3rd virtual testing** (26-30 May 2025) (with advanced IT integration)
- Discussion on potential for linking port-to-port data exchange to railways (initiated)

Challenges and Opportunities

- Inefficient paper-based procedures
- Fragmentation (divergent national / bilateral initiatives)
- Silos of unimodal transport
- Not aligned standards and practices (national / bilateral focus)
- Difficult to implement legal frameworks (e.g. different structures; electronic signature requirements)
- Lack of efficient coordination between countries / different stakeholders
- Resistance to change

- Digitalization / paperless solutions
- Common regional / multilateral approach
- Multimodal transport approach
- Common international standards; guidelines; best practices
- Aligned implementing arrangements (e.g. compatible structure; mutual recognition of electronic signatures)
- Structured coordinative mechanisms (practical support)
- Training, capacity building efforts

Recommendations

- More talking together & working together (synergies, common strategic goals)
- More pilot projects / testing of digital solutions
- Use of international standards, regional framework agreements, guidelines
- Comprehensive approach that includes:
  - Aligned regional / multilateral legal background
  - Interoperable IT / technological solutions
  - Change management

Goran Andreev

Border Crossing Expert

Permanent Secretariat of the Intergovernmental Commission TRACECA

Azerbaijan, Baku, Aliyarbekov str. 8/2, AZ 1005
+994 12 598 27 18
office@ps.traceca-org.org
www.traceca-org.org

USEFUL LINKS IN SOCIAL NETWORKS

IntergovernmentalCommission.TRACECA/

@TRACECA

traceca-permanent-secretariat