

FIT FOR
FREIGHT
Load safety

UIC Freight – competence centres

**LOAD
SAFETY**

**WAGON
UTILISATION**

**DANGEROUS
GOODS**

**TRAIN
OPERATION**

**COMBINED
TRANSPORT**

**DATA
EXCHANGE**

**CORRIDOR
DEVELOPMENT**



UIC Freight – new website



ABOUT ▾

ACTIVITIES ▾

REGIONS ▾

PRODUCTS & SERVICES ▾



Home / Freight

FREIGHT

Let's MODAL SHIFT to an environmentally sustainable future where rail plays a central role in mobility and, asserts itself as its unwavering backbone. To support this ambition, UIC is a key partner working with its members to drive modal shift. This is achieved by harmonising business, operational and information processes which are at the heart of rail freight's daily business activities.

WAGON UTILISATION

Wagons are a key asset in rail freight transport. The work of the competence centres ensures interoperability, availability, easy and safe hand over wagons, this bearing a direct impact on capacity and overall cost of operation. [Read more...](#)

ATTI | Claim Settlement

Corrective Maintenance / Restoring fitness to run

GCU | Technical Inspection

Wagon Utilisation

COMBINED TRANSPORT

Combined transport (CT) is key to achieve a carbon neutral transport sector in the context of the European Green Deal. Combined Transport, presenting a range of benefits, contributes towards a better quality of life and proposes a seamless transport solution in order to improve the productivity of the entire chain. [Read more...](#)

CORRIDOR DEVELOPMENT

The development of intercontinental rail freight corridors opens extremely promising perspectives to the growth of rail transportation over long distance, as an alternative to other modes - maritime or road transport - or as an effective partner in the global logistic chain. [Read more...](#)

DANGEROUS GOODS

The transport of dangerous goods is subject to specific regulatory measures stipulated by the competent international, European, or national authorities, as well as certain measures taken by companies themselves. Dangerous goods safety on the railways is based on general railway operations safety. This area is managed by UIC in close consultation with its members and in cooperation with other stakeholders. [Read more...](#)

TRAIN OPERATION

Harmonisation is the basis for a seamless international and border crossing freight traffic. UIC facilitates best practice sharing to ensure interoperability as well as increase commercial speed of train traffic. Key part of this competence centre is corridor development, ensuring that significant traffic flows are being prioritised and investments being put in place. [Read more...](#)

ECCO | Exceptional Consignments

Freight Forwarders | Operations | Pallets

Quality | XBorder

SEAMLESS DATA EXCHANGE

Digitalisation is key tool to facilitate business growth, reduce future costs and mitigate errors. UIC manages and develops a broad portfolio of transversal digital solutions, enabling efficient data exchange between supply chain partners. At utmost importance it is the development of DP-RAIL, an RFF initiative to create an open European Digital Ecosystem to facilitate seamless interoperable information flows between all rail freight entities. [Read more...](#)

Coding | DIUM | DIUM/NHM | GRU

IT working group | NHM | RailData

LOAD SAFETY

The safety of goods is pivotal in rail freight transport. Hence, UIC has produced Loading Guidelines to clearly outline the key principles and technical recommendations for loading methods, which will ensure that goods reach the intended destination unscathed. [Read more...](#)

Loading guidelines

Loading Guidelines - Working group

UIC Pallets



DEEP DIVE INTO LOAD SAFETY

UIC Freight – competence centres

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UIC Freight – Load safety

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Home / Freight / Load safety

LOAD SAFETY

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LOADING GUIDELINES

The UIC Loading Guidelines (LG) stipulate a state-of-the-art code of practice for all loading and securing of goods on wagons, thus serving as a vital (...) [Read more...](#)

LOADING GUIDELINES - WORKING GROUP

Market needs are constantly evolving, and new types of goods are being transported via rail. Either as an UIC member, or an observer railway (...) [Read more...](#)

UIC PALLETS

Wooden pallets are used for carriage of goods and form part of the packaging for goods conveyed by all modes of transport, particularly by (...) [Read more...](#)

Take advantage of best practices, and:

- Avoid damage to your goods and wagons
- Implement best cargo loading practices
- Facilitate processes and ensure compliance with regulatory requirements (OPE TSI)
- Facilitate knowledge exchange on loading and securing of goods on railways between the sector stakeholders

FREIGHT NEWS

* ALL FREIGHT NEWS

🔔 SUBSCRIBE TO UIC ENEWS





FACILITATE SAFE TRANSPORT OF GOODS

Hakan Günel
UIC Senior Freight Advisor

UIC facilitates safe transport of goods

- UIC is a unique platform that provides benchmarks, experience and best practice sharing.
- Safe loading rules are an essential component for a safe supply chain environment and operations.
- **UIC Loading Guidelines describe practical rules and international railway loading methods** widely open to all partners in the rail logistics supply chain, railway undertakings (RU), carriers and consigners/shippers.
- **UIC Loading Guidelines group develops best loading practices** to maintain the highest level of safety.



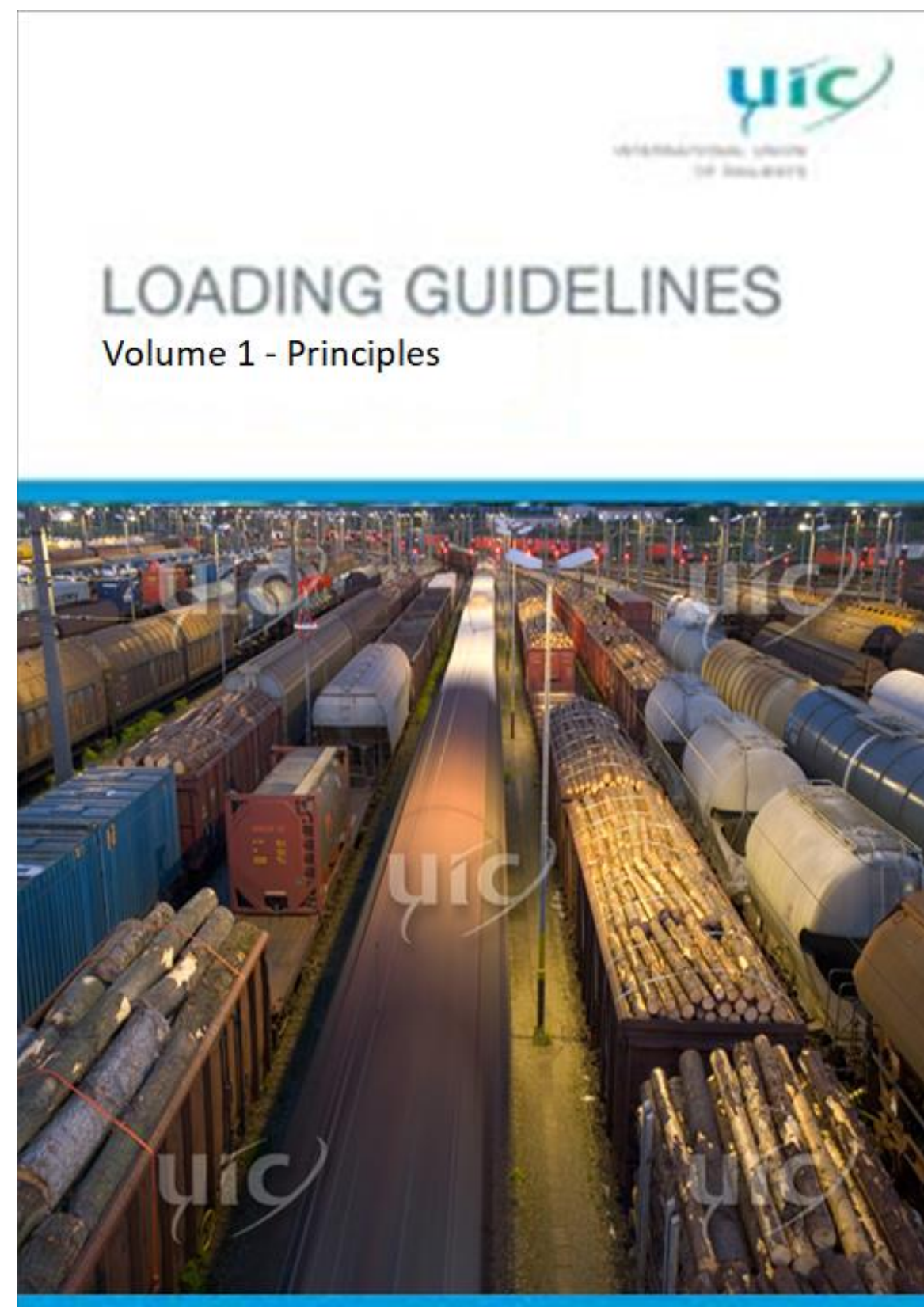
UIC Loading Guidelines

- The European Union Agency for Railways (ERA) designated the **UIC Loading Guidelines as an Acceptable means of compliance (AMOC) on safety of load.**
- The AMOC itself constitutes a non-legally binding opinion and its use is strictly voluntary.

https://www.era.europa.eu/sites/default/files/library/docs/opinion-advice/tsi_ope_amoc_safety_of_load_v1_final.pdf



UIC Loading Guidelines



VOLUME 1 – PRINCIPLES

deals with the use of freight wagons to transport cargo at 120 km/hr.

VOLUME 2 – GOODS

relates to 63 ways of loading cargo

Link to the UIC Loading Guidelines (ENG)

https://uic.org/IMG/pdf/uic_loading_guidelines-volume_1-01042022.pdf

https://uic.org/IMG/pdf/uic_loading_guidelines-volume_2-01042022.pdf

UIC Loading Guidelines



VOLUME 1: PRINCIPLES

- Use of wagons
- Wagon loads
- Permissible dimensions
- Methods of loading & securing
- Covering of loads
- Exceptional consignments



VOLUME 2: GOODS

- Metal
- Wood
- Agriculture
- Paper
- Stone / building material
- Vehicles / machinery
- Boats
- Intermodal loading units

UIC Loading Guidelines

LG application guarantees:

- ✓ operational safety and the prevention of damage to goods and wagons.

LG contain:

- ✓ the loading methods,
- ✓ the measures to be observed for the packaging and stowage of goods and
- ✓ information on the loading gauge, load distribution and the maximum load weights on wagons.



UIC Loading Guidelines group

- **LGG ensures that the loading and securing rules are kept as relevant and suitable as possible**, improves planning visibility, and the quality and safety of trains in the context of inter-RU cooperation.
- LGG answers questions of principle relating to the loading of wagons and securing of cargo by:
 - ✓ **Formalising the technical rules** applicable to the loading of wagons.
 - ✓ **Drafting a practical set of rules** for the securing of goods on wagons, which consider relevant commercial considerations.
- LGG is divided into **sub-groups** dedicated to the rail transport of **certain specific types of goods**.

UIC Loading Guidelines group

Membership

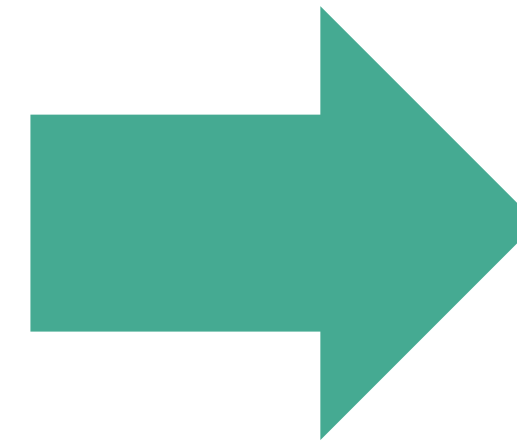
- All UIC and non-UIC members are welcome to join LGG meetings and participate in works if their business is related to the load safety matters.
- Reach out to Nathalie LIBARDI for details – libardi@uic.org



Safety in daily rail operations

LOADING GUIDELINES

- Provisions for loading conditions & securing goods during shipment
- Loading guideline for specific types of goods



ADDED VALUE

- ✓ AMOC on safety of load
- ✓ Safe operations
- ✓ Goods damage prevention
- ✓ Geographical scope beyond Europe

Loading Guidelines for combined transport

COMBINED TRANSPORT

- UIC LG deal with principles applicable to combined transport (CT).
- CT involves carriage of coded intermodal loading units (ILU) on special carrier wagons running on trains – subject to an agreement.
- CT trains have a maximum profile number and run on approved lines – subject to a special examination.
- ILUs must comply with legal prescriptions and technical provisions in force in every case (e.g. UIC Loading Guidelines, ISO, EN standards, UIC leaflets, International Railway Solutions – IRS, CSC, ACEP) and bear the relevant markings.

ADDED VALUE

- ✓ Fit for transport, safe in operations and suited to the load they carry.



Interaction with **GCU** (General Contract of Use for wagons)

WAGON UTILISATION

- The International Wagon Regulations, RIV (Regolamento Internazionale Veicoli) has been in existence since 1922 and sets the conditions for vehicles to pass unhindered over railway networks.
- RIV guarantees operational safety, interoperability and attests the suitability of wagons to run on trains in Europe and the Middle East.
- GCU superseded RIV in 2006, but the regulation remains listed in the GCU specifications of the rights and obligations of RUs and wagon keepers (WK) and in the TSI.

ADDED VALUE

- ✓ Art. 29 Chapter VIII of GCU is dedicated to **LG** and references to LG by GCU Art. 11 – refusal of wagons.
- ✓ Wide application by the sector.
- ✓ LGG amends proposals to GCU experts concerning markings, damage codes, ... and vice versa.

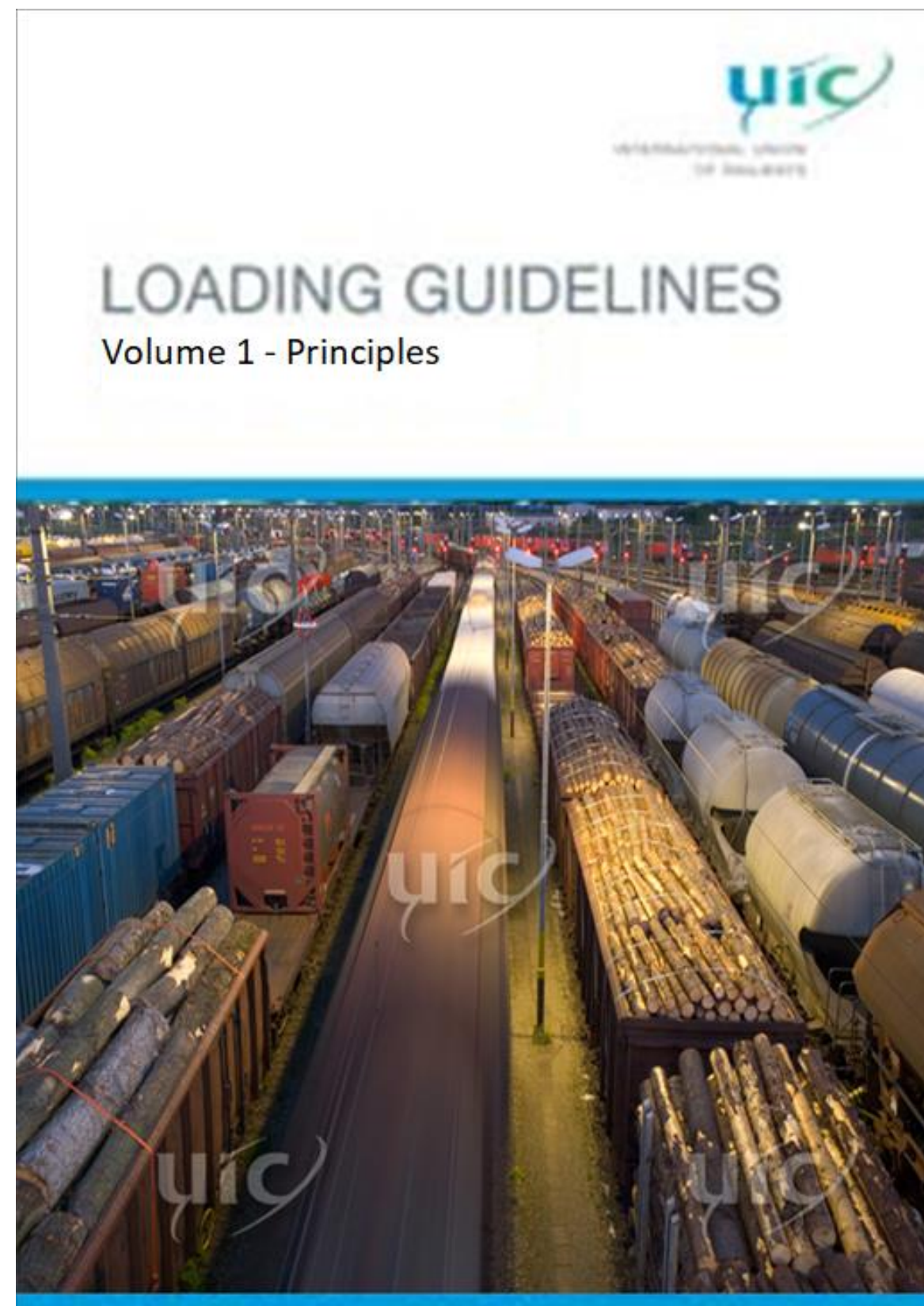


LOADING PRINCIPLES & CORRECT APPLICATION

Thomas Üblauer

Rail Cargo Austria / UIC Loading Guidelines group

THE STRUCTURE OF THE LOADING GUIDELINES ...



VOLUME 1 – PRINCIPLES

sets mandatory requirements for securing loads .

VOLUME 2 – GOODS

contains loading guidelines according to types of consignment essentially corresponding to the requirements set out in **VOLUME 1** or based on real-life tests.

Link to the UIC Loading Guidelines (DE)

https://uic.org/IMG/pdf/uic_verladerichtlinien-band_1-01042022.pdf

https://uic.org/IMG/pdf/uic_verladerichtlinien-band_2-01042022.pdf

... IS COMPLEMENTED BY LOADING EXAMPLES

BLUE

**All principles of
VOLUME 1 are met**

**Applicable for all
RUs**

PINK

**Not fully compliant with
VOLUME 1**

**Subject to agreement
between RUs**

YELLOW

**Not fully compliant
with VOLUME 1**

**Only valid on train
runs by the issuing
RU (domestic traffic)**

VOLUME 1 – AIM OF THE LOADING GUIDELINES

- Sets mandatory requirements for securing loads valid for train speeds up to and including 120 km/h.
- LG describe the loading condition and securing during the shipment, hence their application is a guarantee for operating safety and prevents damage to goods and wagons.
- A consigner / shipper shall be responsible for observance of shipment compliance with these guidelines. RUs may refuse to take on the consignment in the event of non-compliance.

VOLUME 1 – STRESSES ARISING DURING TRANSIT

- For individual wagons and groups of wagons with normal possibility of sliding

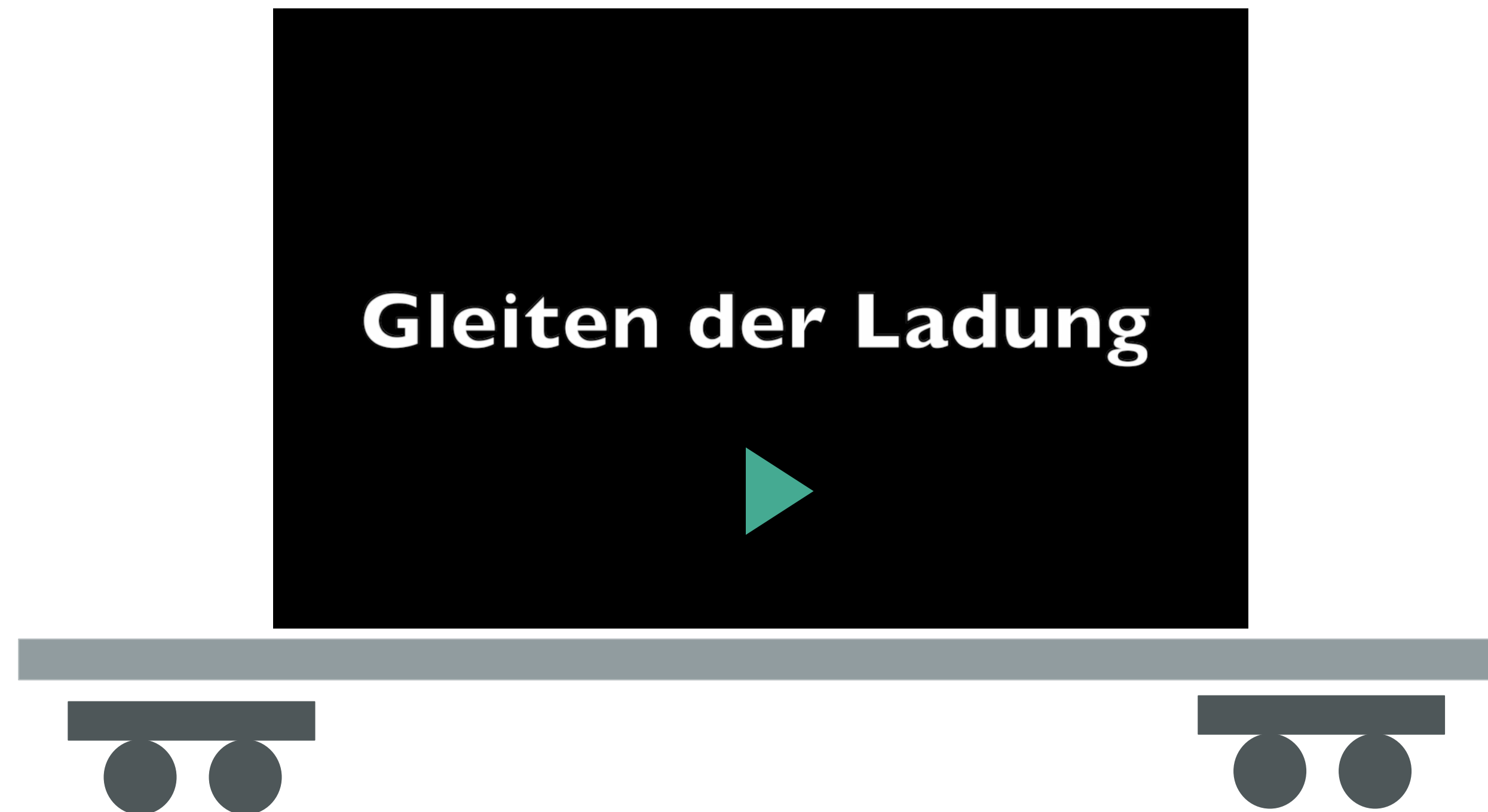
← Up to four times the mass of the load (4 G) for goods that are rigidly secured

← Up to once the mass of the load (1 G) for goods that can slide lengthways in the wagon



VOLUME 1 – STRESSES ARISING DURING TRANSIT

- Video on **sliding of the goods** & photos of loading irregularities



LOADING IRREGULARITIES



Where the load is secured using two **stanchions** only, the goods must extend lengthways above the centre of each stanchion (the centre of the inside stanchion in case of wagons with double stanchions) by at least: 50 cm, or if the bearing surface is rough, 30 cm

LOADING IRREGULARITIES

Hooks without this protection against unhooking must be held in place at the securing point or in direct proximity to the securing point, e.g. by means of cable ties, wire, ...
If the hook is accidentally released, the free end must not infringe the loading gauge.



LOADING IRREGULARITIES



Timbers and supporting scotches that are placed across the wagon and are liable to slide, for example during the loading of rails or steel profiles in several layers, must be secured against movement.

LOADING IRREGULARITIES

Any **spigots** or **twist-locks** placed under the swap body and not required for use are folded down or away and secured in that position.



LOADING IRREGULARITIES



Car was not secured in the right way with the **scotch** (scotch is twisted and shifted).

LOADING IRREGULARITIES

Scrap should be **evenly spread** and loaded **no higher than the top of the sides** (including at the centre of the wagon).



LOADING IRREGULARITIES



The supporting **scotches** or **wooden inserts** consisting of several superimposed pieces must be sufficiently secured and cover the entire width of the load in a single block.

LEGAL FRAMEWORK ENSURING SAFE LOADING

Guillaume Murawa
CIT Legal Advisor



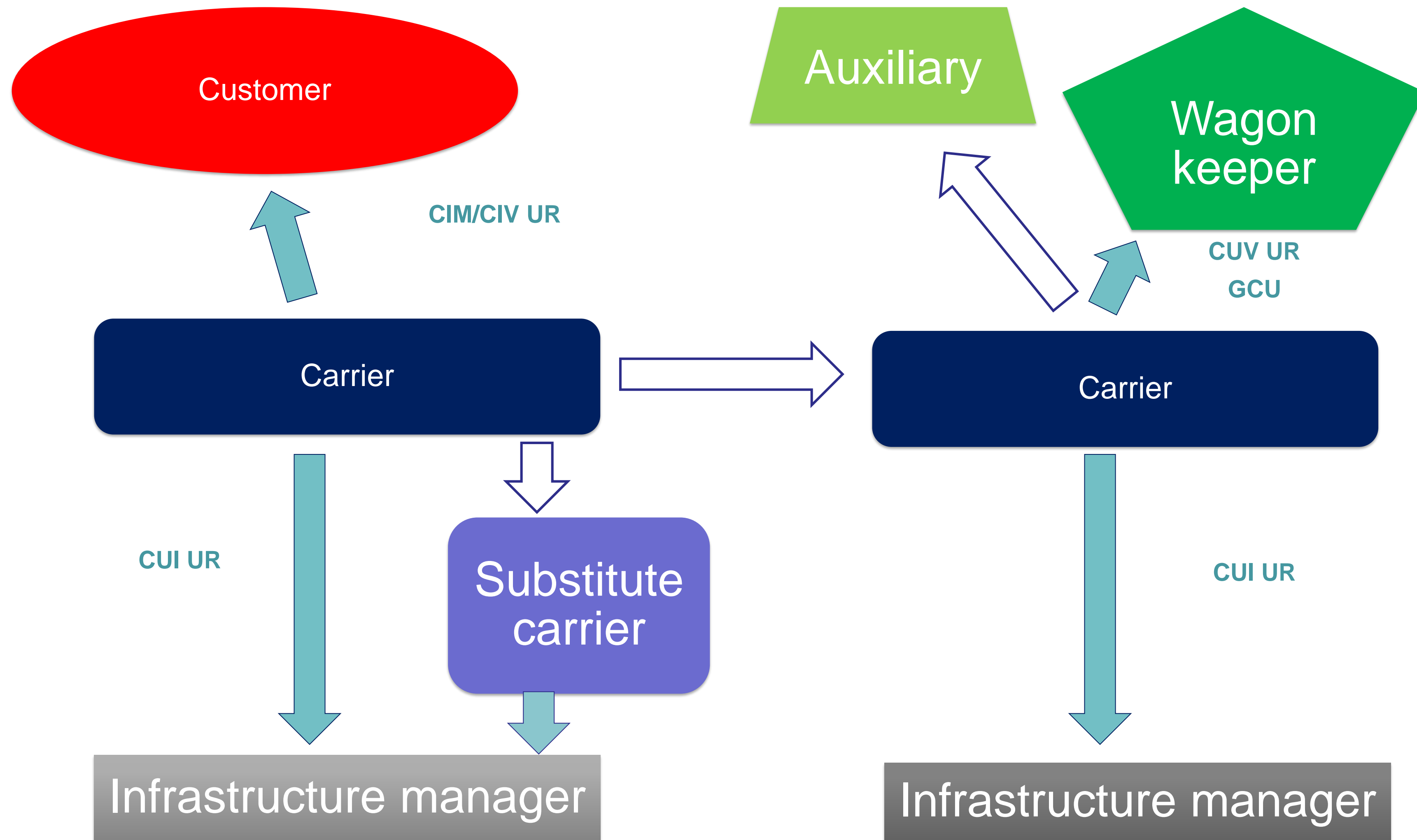
International Rail Transport Committee
Comité international des transports ferroviaires
Internationales Eisenbahntransportkomitee

Environments for the rail transport to ensure safe loading

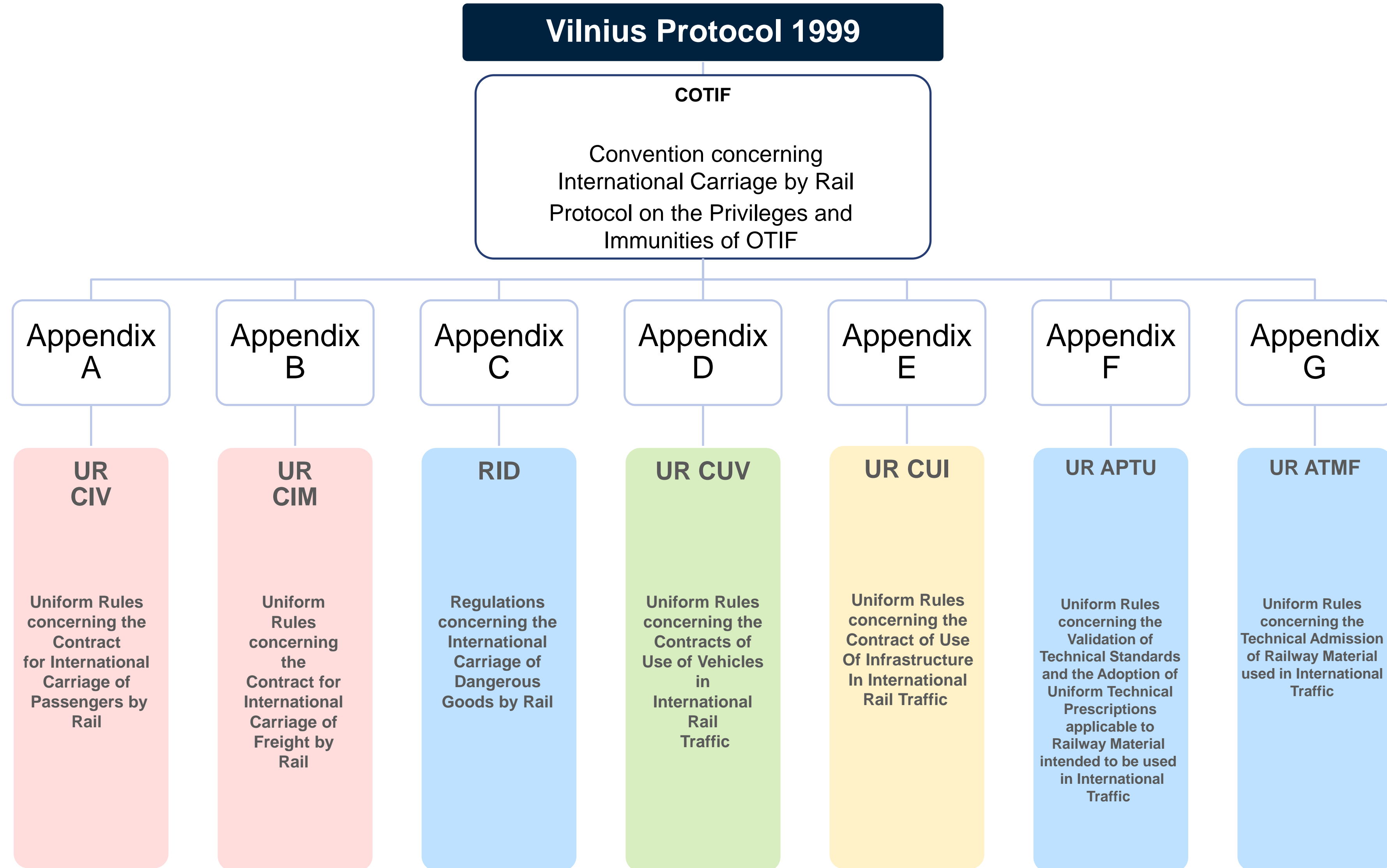
Dr Erik Evtimov, Deputy Secretary General CIT
Guillaume Murawa, Legal Adviser, CIT

UIC Freight Month – November 2022
Safe loading – November 4th, 2022

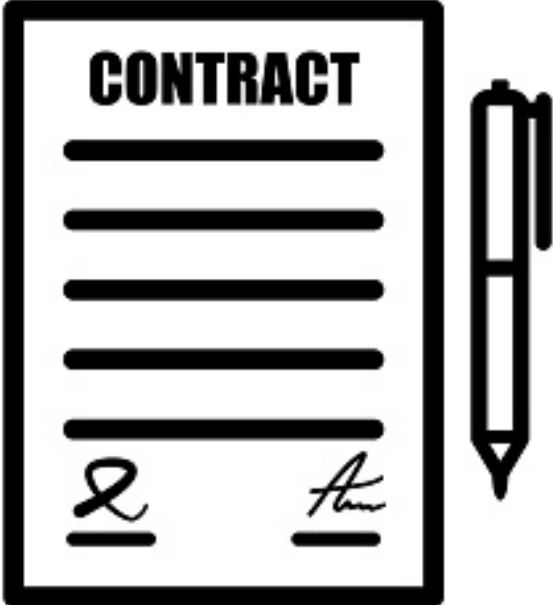
Legal relationships in international rail transport law



COTIF 1999: harmonised rules for legal interoperability



Contract of carriage



The conclusion of the contract



The taking over of the goods



The conclusion of the contract of carriage

Operations prior to transport: the Conclusion of the contract of carriage

The contract of carriage is a consensual contract :

Art. 6 § 1 and § 8 CIM UR

Art. 12 § 1



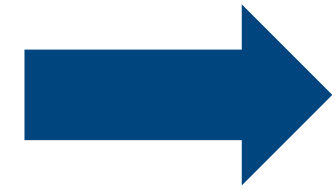
Important to be precise in the contract contractual clauses about loading, unloading, obligations and liabilities of the Parties.



Safe loading: practical cases to deal with potential problems encountered

- 1- Ascertainment of partial lost or damage of goods by rail: scope and application of the CIT20 formal report?
- 2- Who is in charge of rectifying loads ?
- 3- Damage to packaging
- 4- Declaration of the value of goods in the CIM consignment note

CIT-Products with regard to the safe loading



CIT Freight Traffic Manual (GTM-CIT)

[available here](#)

In particular :

- Working sheet : 01 – Activities before carriage
Activity related to the Goods
- Working sheet : 02 – Acceptance of the goods
- To confirm that the goods can be carried
- Working sheet : 07 - Goods missing and surplus
- Appendix 19 - Working sheet 05-01
Notification of wagons and their loads being defective



International Rail Transport Committee
Comité international des transports ferroviaires
Internationales Eisenbahntransportkomitee

Edition 1 July 2021

CIT Freight Traffic Manual (GTM-CIT)



International Rail Transport Committee
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Internationales Eisenbahntransportkomitee

Edition 1 July 2021



Checklist for Sealing Wagons

[available here](#)

Checklist for Sealing Wagons

CIT Freight Traffic Manual (GTM-CIT)

01- Activities before carriage

Purpose: To supply the consignor with suitable wagons at the right time.

Note: Supply of the wagons may be the subject of a specific contract.

Participants	Activity	References
Consignor	<p>The consignor is to send the carrier an order within the timescale agreed, including:</p> <ul style="list-style-type: none">- his name- the place and date of supply- the nature of the goods and their mass [weight]- the country and station serving the delivery point, specifying the route- the number of wagons, intermodal transport units or items of loading tackle. <p>The consignor is to check the equipment when it is supplied and report all defects to the carrier.</p>	<p>GTC-CIM 5.1</p> <p>GTC-CIM 5.2</p>
Carrier	<p>The carrier is to check the order and notify the consignor if there will be difficulties with supply (timescales, wagon types etc.).</p> <p>The carrier is to supply the equipment requested. Before supply he is to check:</p> <ul style="list-style-type: none">- that the equipment corresponds to the order,- the technical condition and cleanliness of the equipment,- that old labels have been removed from the wagon,- the suitability of the wagons for the infrastructure to be used.	<p>GTC-CIM 5.2</p>
Observations		

CIT Freight Traffic Manual (GTM-CIT)

Working sheet : 02 – Acceptance of the goods

To confirm that the goods can be carried

The goods are considered as having been accepted for carriage when the consignor hands them over to the carrier at the time and place agreed and the carrier accepts them.

The carrier becomes liable for loss and damage to the goods when he accepts them.



CIT Freight Traffic Manual (GTM-CIT)

02 - 03 Acceptance of the accompanying documents

Purpose: To accept the documents specified on the consignment note which are handed over by the consignor

- **Consignment note** = only a *proof* of the contract of carriage (Art. 6 § 2 CIM)
- However, consignment note is mandatory for customs (Art. 6 § 7 CIM)
- International associations of carriers (like CIT) have the task to establish uniform model consignment notes (Art. 6 § 8 CIM)
- The consignment note has a purely evidential function (Art. 12 § 1 CIM).
- **Electronic consignment note** is *de lege lata* equivalent to the paper one (Art. 6 § 9 CIM)

Version 2004-07-02

A remplir par l'expéditeur / Vom Absender auszufüllen Désigner par une croix ce qui convient - Zutreffendes ankreuzen (Cases - Felder 20, 22, 23, 30, 32, 34)

CIM Internationalbahn / Internationale Eisenbahnen-Verbindungen Diese Convention, le transport est régi par les Règles Internationales CIM. Sur les conditions générales de transport de transporteur, la livraison est régie par les conditions générales de transport de transporteur. Die Befreiung unterliegt nach bei einer gegenseitigen Absicht der einheitlichen Nachweise CIM. Assesment des conditions générales de transport de transporteur.		Lettre de voiture CIM / Frachtbrief CIM <input type="checkbox"/> Lettre wagon CUV / Wagenbrief CUV <input type="checkbox"/>	
1 Expéditeur (nom, adresse) - Absender (Name, Anschrift)		2 Destinataire (nom, adresse, pays) - Empfänger (Name, Anschrift, Land)	
3 Signature - Unterschrift		4 Adresse à la lettre de voiture - Beilagen zum Frachtbrief	
5 Date d'arrivée - Ankunftsdatum		6 Déclaration de l'expéditeur - Erklärungen des Absenders	
7 Lieu de livraison - Ablieferungsart		8 Référence expéditeur - Absender Referenz	
9 Conditions commerciales - Kommerzielle Bedingungen		10 Mise en charge / Übernahme	
11 Informations pour le destinataire - Vermerke für den Empfänger		12 Paiement des frais - Zahlung der Kosten	
13 Désignation de la marchandise - Bezeichnung des Gutes		14 Informations pour le destinataire - Vermerke für den Empfänger	
14a Transport exceptionnel - Aussergewöhnliche Sendung		14b RID	
15 Déclaration de valeur - Wert des Gutes		16 Indications douanières - Zollverfahren	
16a Opérations douanières - Zollbehandlung		16b Bulletins d'attribution - Besondere Bescheinigungen	
17 Déclarations du transporteur - Erklärungen des Betreibers		18 Autres transporteurs - Andere Beförderer	
19 Signature - Unterschrift		20 Date d'arrivée - Ankunftsdatum	
21 Procédure simplifiée de transit ferroviaire - Vereinfachtes Eisenbahnverkehrsverfahren		22 Mise à disposition - Bereitstellung	
23 Code principal obligé - Code Hauptverpflichteter		24 Identification de l'envoi - Identifizierung der Sendung	
25 Origine - Ursprung		26 Lieu et date d'établissement - Ort und Datum der Ausstellung	

Examination of the goods by the carrier

Liability for the loading / unloading of the goods

CIM UR:

Article 11 – Examination

Article 13 - Loading and unloading of the goods

CIT Freight Traffic Manual (GTM-CIT)

Working sheet : 05 Circumstances preventing carriage

05 - 01 Action to be taken – ask the person entitled for instructions



Provisions in RID that ensure safe loading

Chapter 7.5 of the RID: Provisions concerning loading, unloading and handling.

- ➔ **7.5.1.2** Unless otherwise specified in RID, **the loading shall not be carried out** if:
- an examination of the documents or
 - a visual inspection of the wagon or of the container(s), (...), if any, as well as of their equipment used in loading and unloading, shows that the wagon, a container, (...) or their equipment do not comply with the regulatory provisions.
- The interior and exterior of a wagon or container shall be inspected prior to loading to ensure that there is no damage that could affect its integrity or that of the packages to be loaded in it.
- ➔ **7.5.1.3** Unless otherwise specified in RID, **the unloading shall not be carried out** if the above-mentioned inspections reveal deficiencies that might affect the safety or the security of the unloading.



Thank you for your kind attention



Guillaume MURAWA
Legal Adviser – CIT
guillaume.murawa@cit-rail.org



CIT
Weltpoststrasse 20
CH - 3015 Bern
Tel: +41 (0)31 350 01 94
www.cit-rail.org



INTERNATIONAL UNION
OF RAILWAYS

LOADING GUIDELINES AS THE AMOC SAFETY OF LOAD

Frédéric Henon

UIC Head of Operations & Safety

EUROPEAN REGULATORY FRAMEWORK

MANDATORY



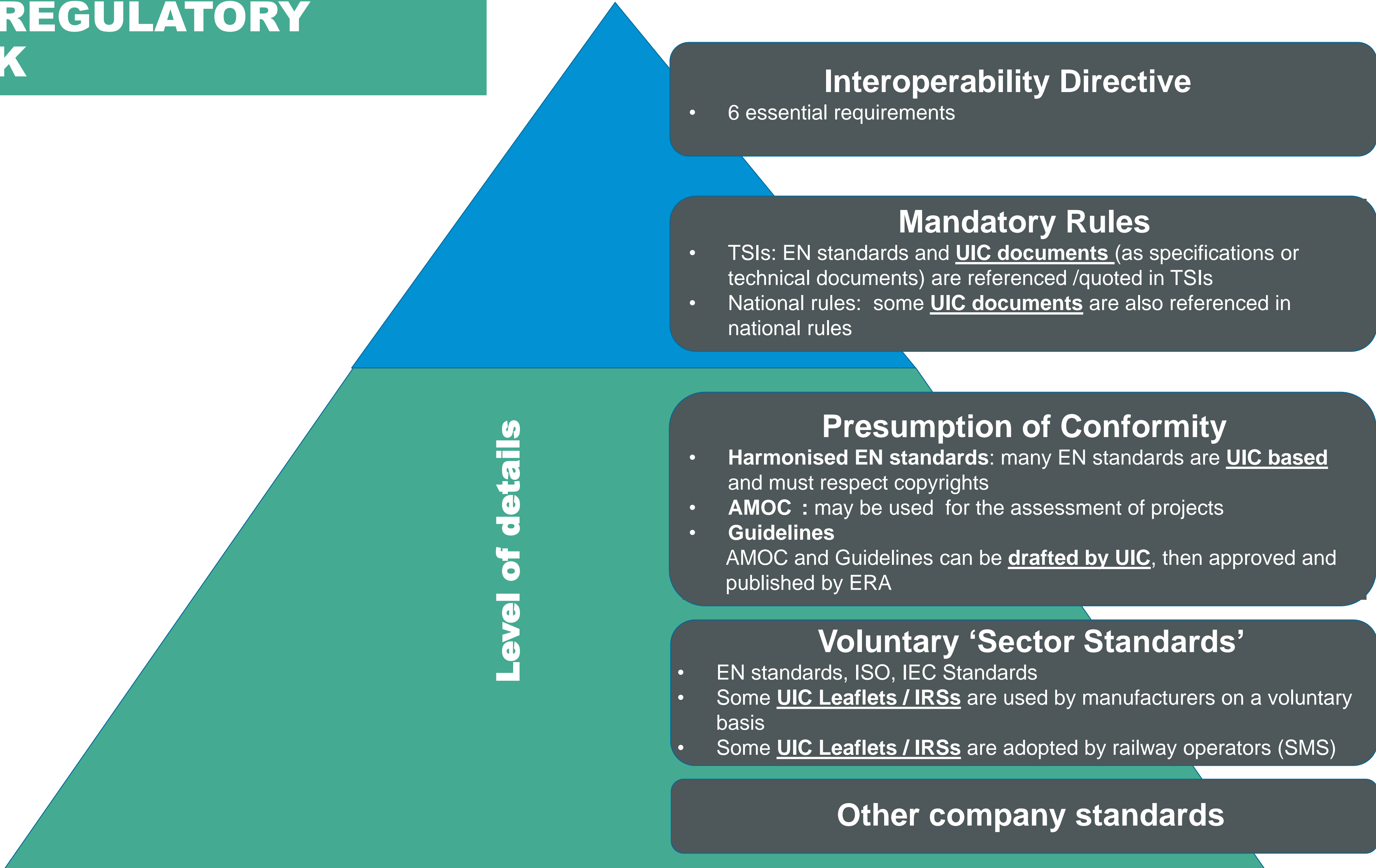
Interoperability Directive

- 6 essential requirements

Mandatory Rules

- TSIs: EN standards and UIC documents (as specifications or technical documents) are referenced /quoted in TSIs
- National rules: some UIC documents are also referenced in national rules

VOLUNTARY



Presumption of Conformity

- **Harmonised EN standards:** many EN standards are UIC based and must respect copyrights
- **AMOC** : may be used for the assessment of projects
- **Guidelines**
AMOC and Guidelines can be drafted by UIC, then approved and published by ERA

Voluntary 'Sector Standards'

- EN standards, ISO, IEC Standards
- Some UIC Leaflets / IRSs are used by manufacturers on a voluntary basis
- Some UIC Leaflets / IRSs are adopted by railway operators (SMS)

Other company standards

Article 19(3) of Regulation (EU) 2016/796 of the European Parliament and of the Council of 11 May 2016

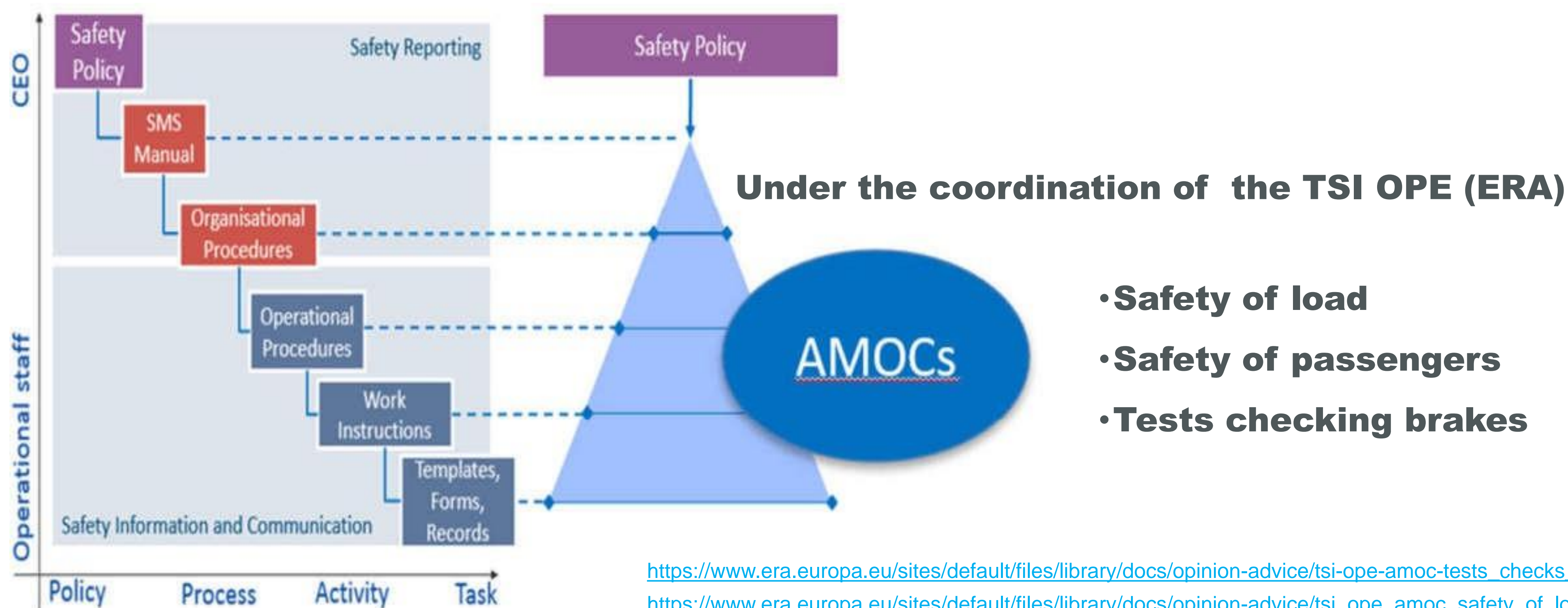
- The Agency may issue guidelines and other non-binding documents to facilitate the implementation of railway interoperability legislation, including assistance to Member States in identifying national rules that can be repealed further to the adoption or revision of TSIs.

Article 4 (i) of Regulation (EU) 2016/796 of the European Parliament and of the Council of 11 May 2016

- The Agency may: ... issue guidelines and other non-binding documents facilitating application of railway safety and interoperability legislation pursuant to Articles 13, 19, 28, 32, 33 and 37.
- https://www.era.europa.eu/sites/default/files/library/docs/opinion-advice/AMOC_supporting_guidance_v1.0_final.pdf

EUROPEAN REGULATORY FRAMEWORK

- An **AMOC** defines **good practices to be used to cover operational risks** when these are applicable, in doing so, an AMOC can define the good practice or contain reference to external document that are to be considered as good practice.
- In the case of the AMOCs to support the TSI OPE this is good practice provided by a number of sector organisations and NSAs.



AMOC: ACCEPTABLE MEANS OF COMPLIANCE

- The basis for the development of AMOCs is **EU Regulation 2019/773**, paragraph 4.4 which requires ERA to produce AMOCs:
 - **Safety of load** (see 4.2.2.4.1)
 - **Safety of passengers** (see 4.2.2.4.2)
 - **Checks and tests before departure**, including brakes and checks during operation (see 4.2.3.3.1)
 - **Train departure** (see 4.2.3.3)
 - **Degraded operation** (see 4.2.3.6)
- An **AMOC provides a presumption of conformity** with elements set out in EU Regulations 2018/762 and 2019/773. Further information can be found in the [Guide for the application of the TSI OPE](#) and in the [Guidance for safety certification and supervision](#).
- This means that the **AMOC should be accepted throughout the EU** by Member States and NSAs. Importantly, if a Member State and/or NSA requires an RU or IM to comply with national requirements, then that MS or NSA will have to provide evidence as to **why their national requirements provide a higher degree of risk** control than that set out in the AMOC.
- As a result, this AMOC can be accepted by ERA or the NSAs when an RU or IM applies for a safety certificate or authorisation, against the requirements of EU Regulation 2018/762 on safety management systems and against the applicable requirements of TSI OPE.

AMOC: ACCEPTABLE MEANS OF COMPLIANCE

- An **RU and/or IM remain responsible for how the AMOC is used** in their SMS. They should ensure that they can identify which risks the AMOC provides controls against. The AMOC should not just be included in the SMS without the RU and/or IM **justifying its use through their risk management procedures** and their document management system. It is particularly important that when the RU and/or IM use the information in the AMOC that they **provide return of experience** and/or information from accidents to ensure that the advice remains relevant and up to date... Any links to good practice is the responsibility of the provider to ensure that they remain up to date and keep ERA informed of any changes/amendments”. RUs/IMs can deviate from an AMOC if they prove that what they do is as good as or better than the requirements in the AMOC.
- **AMOC allows for innovations, as it is still possible to demonstrate that a project is “better”**, especially today, with digitalization, AI, ML, ... It allows as well to “sequence” the revision cycle of TSI and CSM.

Publication date

20/12/2021








Related TSI

Operation and Traffic Management

AMOC



Related documents :

-  [Opinion ERA/OPI/2021-08 \(290.77 KB\)](#)
-  [ERA-OPI-2021-8 AMOC Light Impact Assessment \(295.61 KB\)](#)
-  [AMOC supporting guidance \(293.61 KB\)](#)
-  [TSI OPE AMOC Safety of Load \(201.05 KB\)](#)
-  [TSI OPE AMOC Safety of passengers \(238.99 KB\)](#)
-  [TSI OPE AMOC tests checks braking \(331.06 KB\)](#)
-  [TSI OPE AMOC tests checks braking - Annex I - Appendix A - brake sheet \(529.57 KB\)](#)

AMOC: SAFETY OF LOAD

2.4. Safety requirements

- The RU should make sure that vehicles are safely and securely loaded and remain so throughout the journey;
- All vehicles that are part of a train including their load — should be compatible with all the requirements applicable on the routes over which the train is planned to operate. This includes respecting the following:
 - the mass limit permitted by the infrastructure manager for the respective lines as part of the route where the train is intended to run;
 - the mass limit permitted by each vehicle of the train;
 - the vehicle-loading gauge permitted by the infrastructure manager for the respective lines as part of the route where the train is intended to run;
- All vehicles that are part of a train including their load should be technically operational taking into account the characteristics of the wagon, the load and the infrastructure and remain so throughout the journey.

https://www.era.europa.eu/sites/default/files/library/docs/opinion-advice/tsi_ope_amoc_safety_of_load_v1_final.pdf

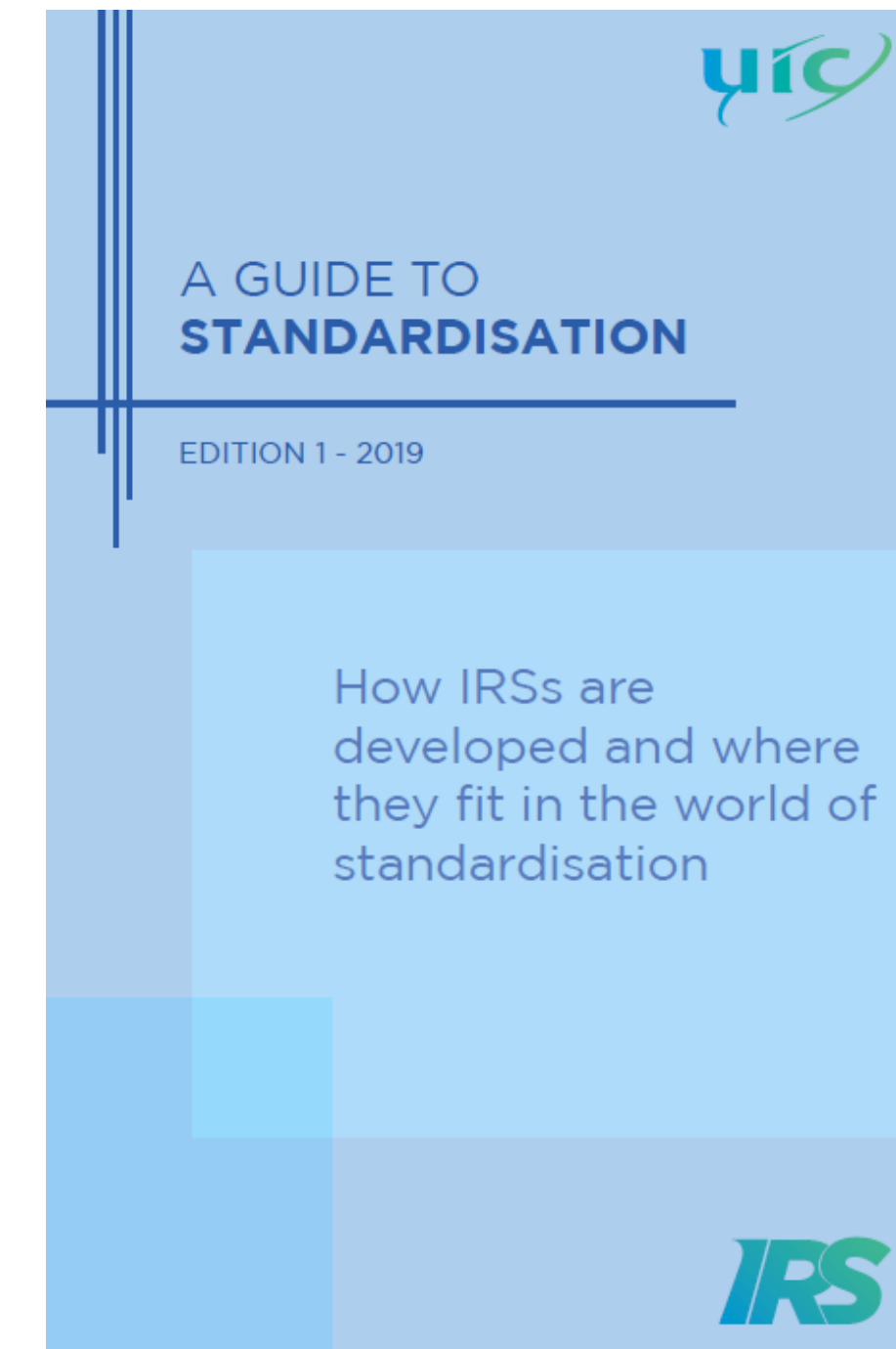
IRS & TECHNICAL DOCUMENTS TO BECOME AMOC OR GUIDELINES

UIC documents as AMOCs Safety of load & Tests and checks before departure

- **UIC Loading Guidelines - Code of Practice for Loading and Securing Cargo on Vehicles in Rail Freight Traffic :**
Volume 1 – Principles
Volume 2 – Goods
- **IRS 40471-3 :** Inspection of dangerous goods consignments (inspection before train movement)
- **IRS 40453 :** Procedures for air brake tests effected with a traction unit :Brake tests for conventional freight train (wagons)
- **IRS 40421 :** Rules for the consist of and braking of international freight trains : rules for freight train brake settings as well as the content and format of the brake sheet and wagon list for use in freight traffic
- **IRS 40472 :** Braking sheet, consist list for locomotive drivers and requirements for the exchange of data necessary to the operations of freight rail services
- **ATTI-GCU refers to GCU:**
 - Inspections, tests and checks before train movement
 - Quality assurance procedure,
 - Managing defects and irregularities

Presumption of Conformity

- Harmonised EN standards
- AMOC
- Guidelines



SPECIFICATION / STANDARDISATION HOW UIC WORKS WITH THE SECTOR

UIC continues to cooperate with all relevant stakeholders in developing documents with a focus on:

- Functional concepts and principles
- Functional Requirements and Specifications
- Integration in the Railway System Architecture
- Tests
- Operations (integration and REX)

Through adequate MoUs / agreements:

- The work programs of the different stakeholders are synchronized/harmonized beforehand
- The synchronized/harmonized documents of the different stakeholders are therefore cross-referenced

SPECIFICATION / STANDARDISATION

HOW UIC WORKS WITH THE SECTOR

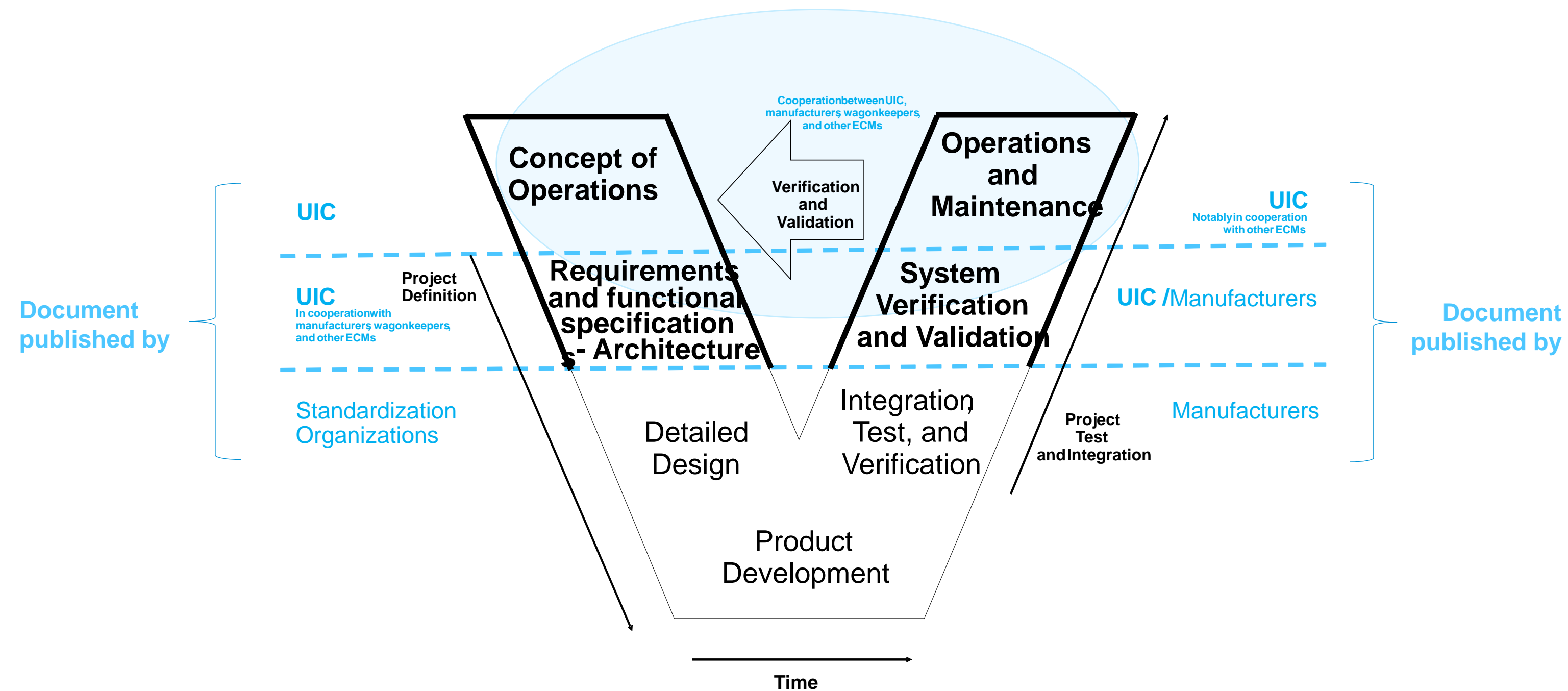
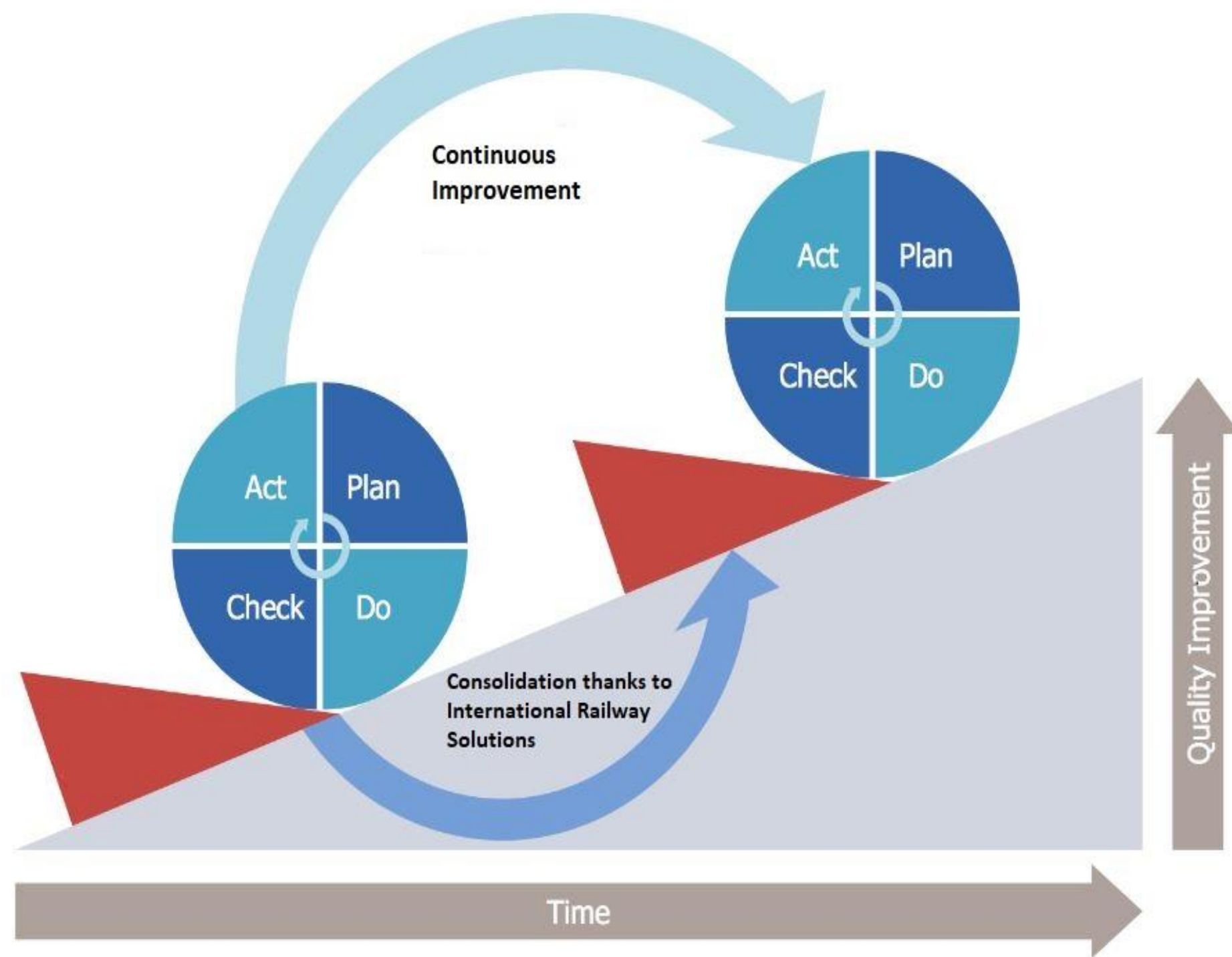
- Achieve an efficient and practicable **RETURN OF EXPERIENCE** based on a confidential international process of **SHARING** : DNA of UIC is REX, including positive REX
- Deliver UIC technical solutions (procedures, guidances, tools, etc.), as means for **OPERATIONS & SAFETY** (ex: IRS, AMOC)
- Design and Deliver Trainings and Tools (Academy + Cluster/Hub)

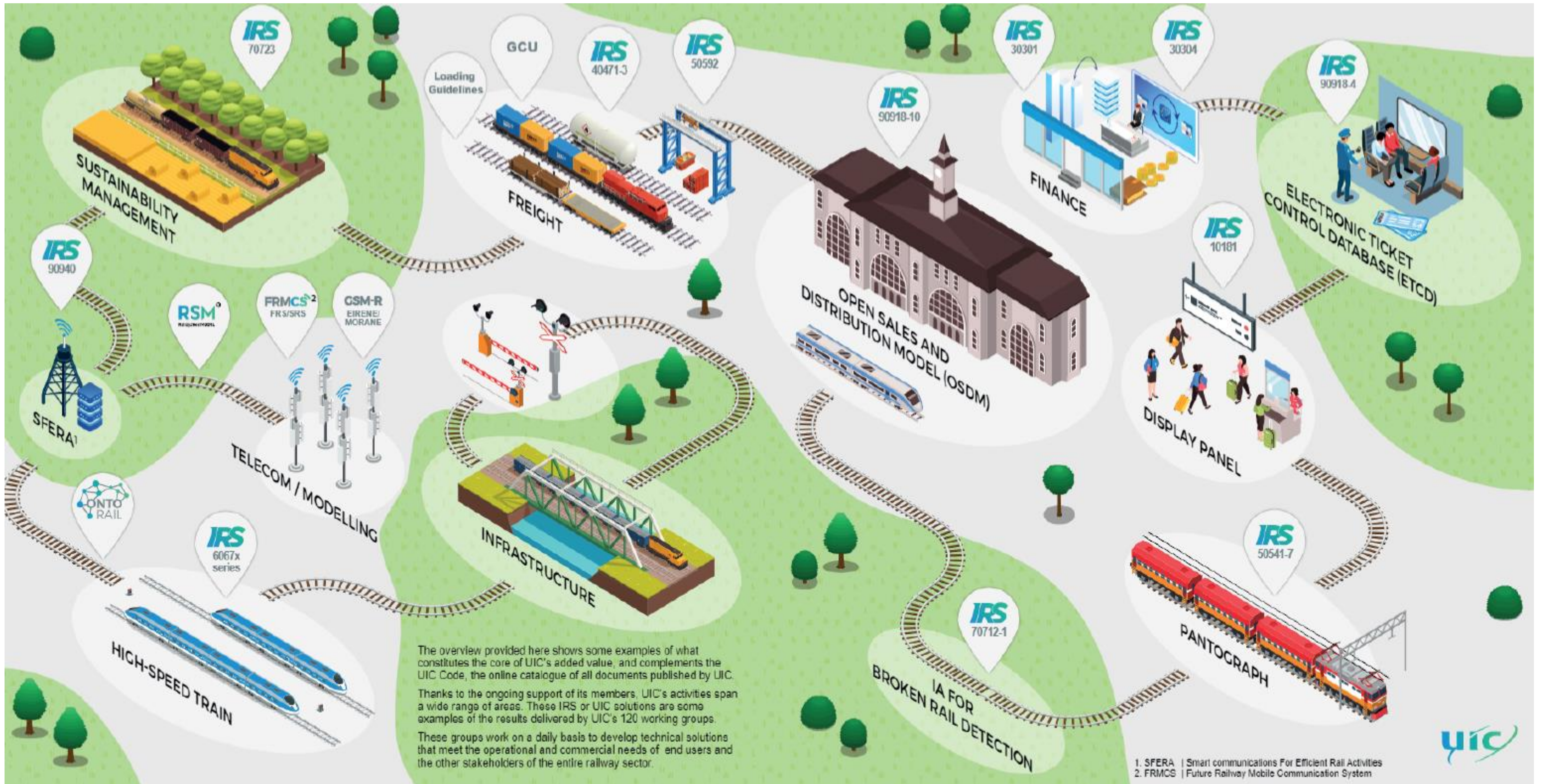


UIC TRANSVERSAL ACTIVITIES OF SAFETY UNIT & OPERATIONS SECTOR

OPERATIONS encompass all the processes and responsibilities required to operate a train with passengers or freight, from **SERVICE DESIGN** to **RETURN OF EXPERIENCE**.

- **Operational Standards**
- **Managerial Standards**
- **Organisational Standards**







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QUESTIONS & ANSWERS

UIC	Hakan Günel	Facilitate safe transport of goods
RCA	Thomas Üblauer	Loading principles & correct application
CIT	Guillaume Murawa	Legal framework ensuring safe loading
UIC	Frédéric Henon	Loading Guidelines as the AMOC Safety of load



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Thank you for your attention.

Fit for Freight – Load safety podcast



