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Webinar agenda

10:00	**Welcome and introduction** Introduction to the webinar and the BRIDGE project
10:05	**Telematics Applications TSI and reference data** Upcoming requirements and their relevance for ILU technical data
10:20	**ILU-Tech: current status and planned developments** Technical register, data population and future interoperability services
10:35	**BoxTech: experience with technical reference data** Presentation by BIC
10:50	**Discussion and Q&A**
11:00	**End of webinar**

Introduction to BRIDGE

Eric FEYEN

Project Coordinator

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Project: fact sheet

Acronym	**BRIDGE**
Full Name:	**B**oosting a **R**esilient and sustainable door-to-door **I**ntermodal freight transport digital **D**ata sharin**G** **E**cosystem
Type of action:	**CEF** Infrastructure Projects
Project duration:	**36 months** (1st October 2025 – 30th September 2028)
Partners:	Consortium of **20 partners** coordinated by UIRR and MARLO Consultants
Total budget:	**5 million** € with funding rate of 50%
Outputs:	**3** demonstration clusters, **16** deliverables and **22** milestones structured around **4** work packages
Support:	**10 Member States** (Austria, Belgium, France, Germany, Italy, Luxembourg, The Netherlands, Republic Czech, Slovenia, Slovakia)
Website:	www.bridge-project.info

Purpose: creation of a digital ecosystem for the intermodal freight transport

Innovate, improve, and comply with digital standards for the benefit of combined transport stakeholders, their customers and suppliers in a door-to-door perspective

Standards

TSI Telematics, eFTI data sets,and compliant exchange message format (EDIGES)

Measurable improvement

Measurable improvement in service offering to customers

Harmonised processes

Harmonised processes, data or document sharing according to standards (efficiency)

Suitable governance

Suitable governance rules to foster utilisation

Accepted processes

Accepted processes, SLAs and data sharing with suppliers

Telematics Applications TSI and reference data

Eric FEYEN

Technical Director

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New EU Regulation for railway: Telematics Applications TSI

*Commission Implementing Regulation (EU) 2026/253 of 6 February 2026 on a **technical specification** relating to the **telematics subsystem** of the rail system in the European Union **for interoperability of data sharing in rail transport** (TEL TSI)*

Previous situation

- **TAF TSI on freight services** (Regulation (EU) N.1305 / 2014)
- **TAP TSI on passenger services** (Regulation (EU) No 454/2011, as last amended in 2019)

10 February 2026

Telematics Applications TSI published in the Official Journal of the European Union

2 March 2026

Telematics Applications TSI Enters into force

Telematics Applications TSI: the reference databases on intermodal loading units (ILURD)

TSI Telematics

- Act
- Annex
- Technical documents

ILURD

- Article 8 (Act)
- Point 3.3.3 (Annex)
- TD103 (technical document)

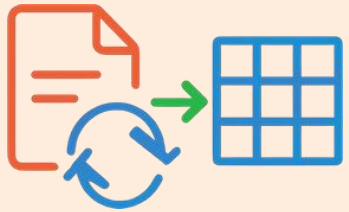
Key elements

- Under coordination of the Agency (ERA)
- Database(s) on **intermodal loading units identified with an ILU- or BIC-code**
- Responsibility of the **owners and keepers of ILU**
- Administrative and design data to be collected
- Administrator is defined in the **EN 13044-1** standard (**currently under revision**)

https://www.era.europa.eu/domains/technical-specifications-interoperability-tsis/telematics-applications-tsi

BRDIGE demonstration clusters

CLUSTER III



data exchange format interoperability and reference files

- Version upgrade
- Regulatory alignment
- Precise mapping
- Unified database
- Seamless integration
- Certified compliance

Key Functions for the demonstration:

- Centralised static ILU reference databases
- Standardised and automated data exchange via CI or APIs
- Support for bulk upload and updates via website interface
- Support TSI Telematics query requirements
- Possible integration with:
  - Operational platforms
  - External systems
  - Other reference databases

ILU-Tech: current status and planned developments

Mateusz NOWAK

Digital Project Officer

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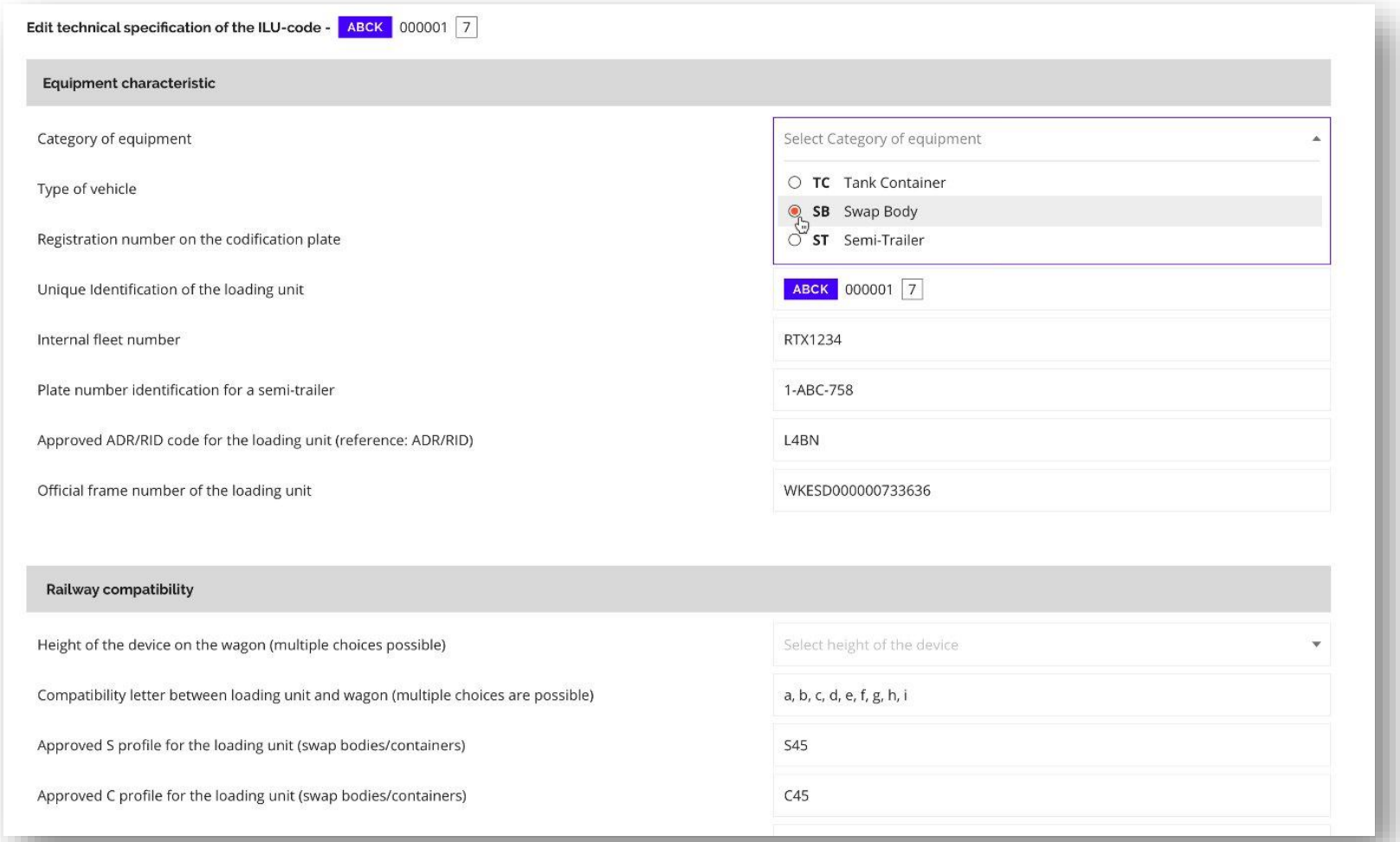
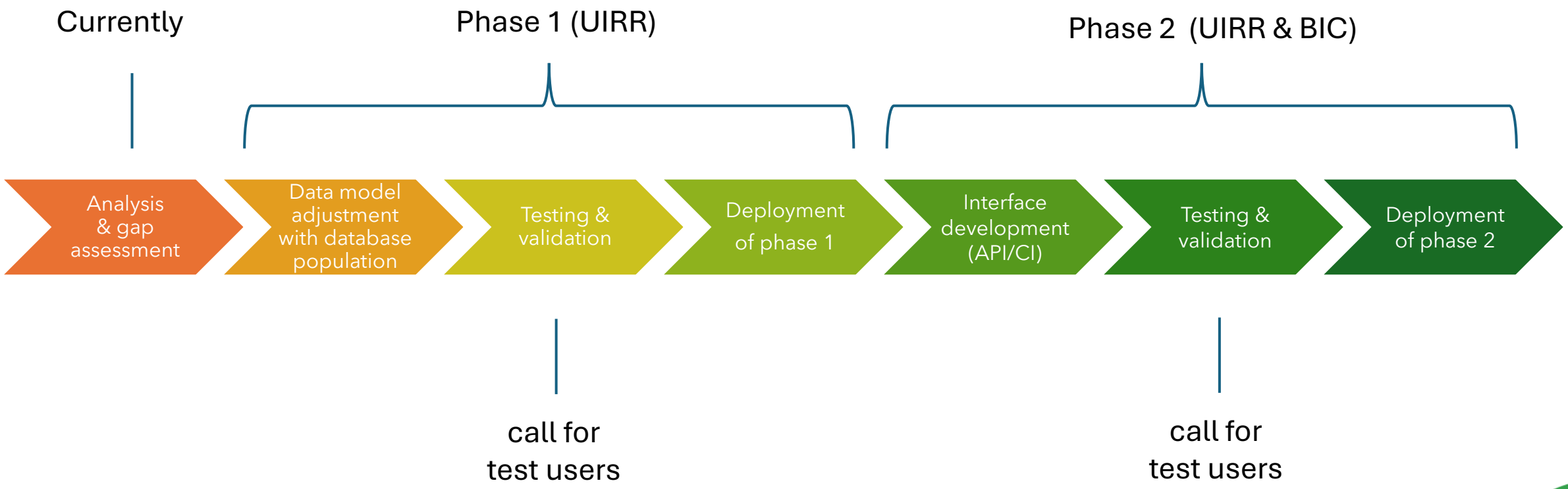
ILU-Tech: current status and planned developments



Planning


Currently
Phase 1 (UIRR)
Phase 2 (UIRR & BIC)
Analysis & gap assessment
Data model adjustment with database population
Testing & validation
Deployment of phase 1
Interface development (API/CI)
Testing & validation
Deployment of phase 2
call for test users
call for test users

ILU-Code structure

ILU-Key	ILU-Number	ILU-Check
ABCA	001234	2
ILU-Key is a compilation of four letters for the identification of the owner of the intermodal loading units. An owner can freely choose the first 3 letters whereas the 4th letter is limited to A, B, D, E or K. An owner might reserve several ILU-Keys if requested.	ILU-Number is a compilation of digits (from 000001 to 999999), freely chosen by the user. It should be unique and created for each loading unit. It is comparable to an internal fleet number. It might be used to distinguish your semi-trailers from containers.	ILU-Check is the seventh (last) digit of the ILU-Code, calculated on a pre-defined algorithm (see EN13044-1): it counts all the letters from the ILU-Owner and all the numbers from the ILU-Number giving a result presented in the frame from 0-9.

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ILU-Code vs. ILU-Tech (ILURD)

ILU-Code (Who owns the unit)

- Identifies the company that owns or operates the unit
- Compilation of the ILU-Key + ILU-Number + ILU-Check for identification

ILU-Tech (Operational details of a unit)

- Stores the technical characteristics of the unit
- Dimensions, weights, construction type, codification details
- Ensures compatibility and safety in combined transport

ILU-Tech is developed as a technical register linked to the ILU-Code. It does not replace codification but provides structured technical information in a digital form

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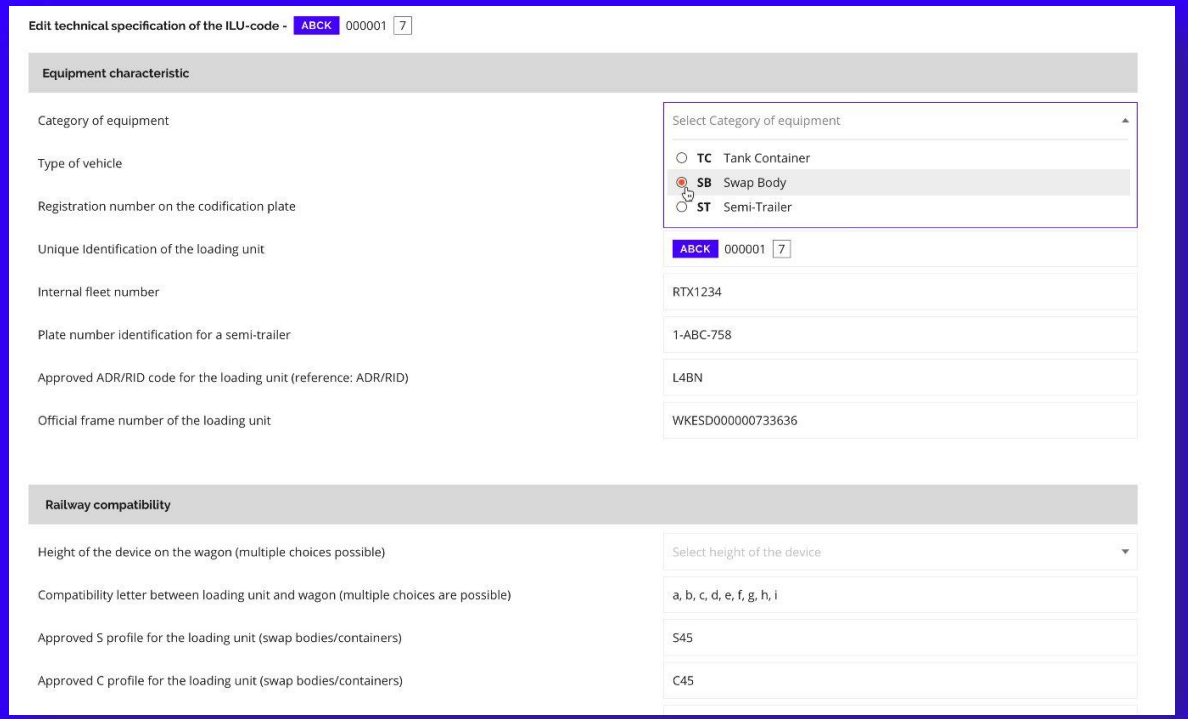
Technical Database: ILU-Tech

- List of parameters per category of equipment (**swap body, semi-trailer, tank container**)
- Details ralated to: **equipment details, railway compatibility, weights and dimensions**
- Mandatory / optional fields **with validation**
- Manual encoding & bulk upload possible
- TSI Telematics mandatory ILU Reference Database file
- Comparison with the ISO-related **BOXTech** register



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ILU-Tech: current dataset elements

Category	Data element	ILU category
Identification	1. Category	TC · SB · ST
	2. Type	TC · SB · ST
	3. Codification number	TC · SB · ST
	4. ILU-Code	TC · SB · ST
	5. Internal number	TC · SB · ST
Semi-trailer identification & compatibility	6. Licence plate	ST
	7. Seating device height	ST
	8. Compatibility code of semi-trailers	ST
Rail profiles & coding	9. Profile S	TC · SB
	10. Profile C	TC · SB
	11. Profile P	ST
	12. InterUnit code	TC · SB
Technical identification	13. RID/ADR code	TC · SB · ST
	14. Frame number	TC · SB · ST
Weights	15. Tare	TC · SB · ST
	16. Maximum admissible weight	TC · SB · ST
Dimensions	17. Length	TC · SB · ST
	18. Width	TC · SB · ST
	19. Height	TC · SB · ST

About BIC

Non-profit, neutral, and standards-driven since 1933

The Bureau International des Containers (BIC) is a non-profit NGO, founded in 1933 under the auspices of the ICC.

BIC is the ISO 6346 registration authority for container owner codes (BIC Codes) — the unique prefixes that help identify every container in the world.

BIC holds official NGO Observer status at the IMO, WCO and UNECE, and is active at ISO, CEN and other standards bodies.

3,100+
members in 130+ countries

3,800+
registered BIC owner codes

IMO · WCO · UNECE
NGO Observer status

BIC's Mission

- **Safety**
- **Security**
- **Standardization**
- **Sustainability**

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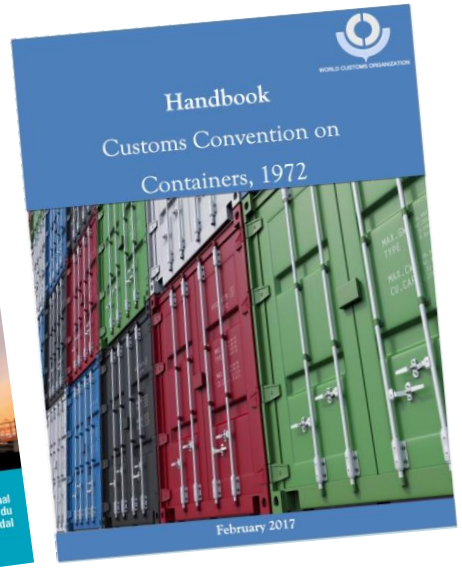
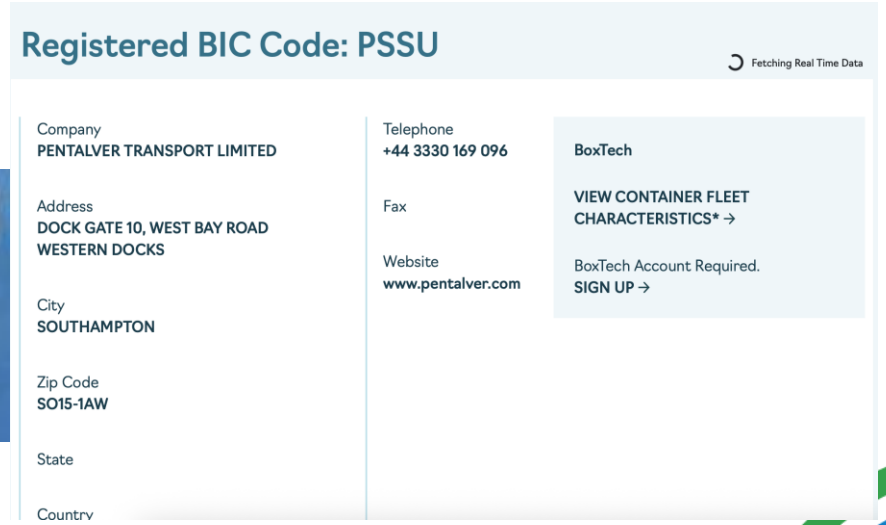
BIC Code

International Containers must be marked with a BIC Code

- BIC Code Register was first published by the BIC in 1970
- Designated as registration authority by ISO since 1972
- Customs Convention marking requirements refer to the standard
- Over 3500 registered codes in over >130 countries
- Over 99.98% of containers marked with registered BIC Code
- e-BIC service for Customs Threat Assessment Modules provided since 2010; API launched 2025





BoxTech — the Global Container Database

Free, neutral, operated by BIC

BIC BoxTech is a neutral, centralized database: owners share fleet technical details **free of charge**; partners retrieve them via API, SFTP or web.
The only centralized container equipment platform of its kind in the world — trusted by CMA-CGM, MSC and Maersk.

Among the 900+ owners & operators uploading:

MAERSK msc CMA CGM HMM seaco Touax®

Data shared includes

- ISO size-type
- Tare, max payload & max gross weight
- Capacity & dimensions
- Smart-container & tank-container attributes
- CSC plate detail (incl. age, max stacking)
- Status flags: sold / scrapped / lost / stolen

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BoxTech by the numbers

Adoption across the global container fleet

15.3M+

containers in the database

6,000+

registered users worldwide

900+

owners & operators uploading fleet data

1.8M

average API calls every month

10 years

in operation

Top 3

MSC, Maersk & CMA-CGM — the world's three largest carriers — upload their fleets

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How BoxTech works

Owners control their data; partners retrieve what they need

Owners & carriers upload

Upload and maintain fleet technical data via **API, SFTP or web.** Owners choose exactly which fields to share.

Trading partners retrieve

Terminals, shippers, forwarders and depots pull the data they need — straight into their own systems.

Controlled access

1. Owner controls which fields are shared
2. General users — rate-limited per owner code
3. Trusted terminals — private, carrier-designated full-fleet sharing (coming soon)

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Tank Containers

International Tank Container Organisation (ITCO) - Digital Twin and BIC BoxTech

ITCO have created a '**digital twin**' data set for tank containers, with the intention of simplifying sharing of important tank container information in an electronic and re-usable way to those who require the data. They needed to establish a method to distribute this information.

BIC already provided container data via API to industry through BoxTech on behalf of the dry container operators.

BoxTech was modified to also include the ITCO digital twin data structure to facilitate the sharing of tank data in both the BoxTech data structure and the ITCO digital twin data structure, **making 2 data models work harmoniously in a single API**.

A key use case

"Maersk handles over 1 million shipper-owned containers each year… carriers often have to rely on emails, PDFs, or image files, manually reviewed for each unit before accepting a booking.

Shippers providing high-quality structured data and inspection certificates through a trusted source can be integrated into our workflow — accelerating the acceptance of SOCs."

Nicholas Cook · Head of Equipment Tracking, Maersk

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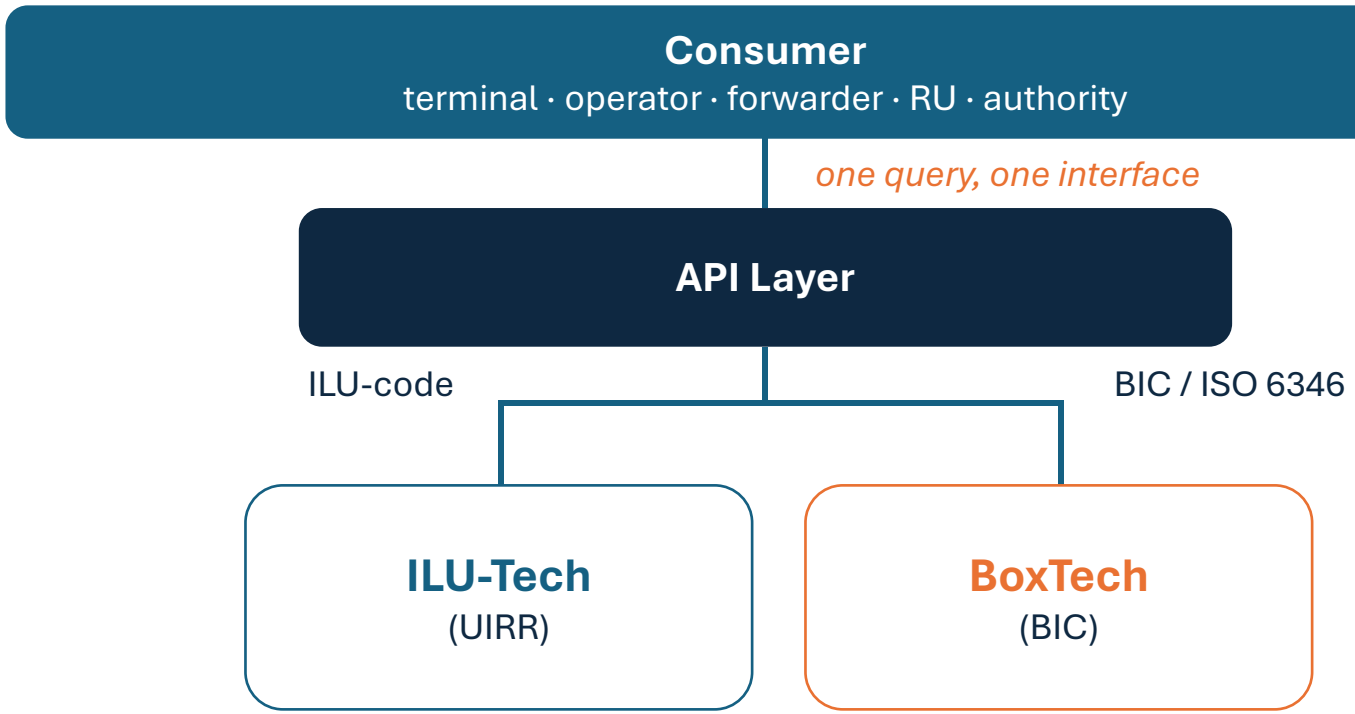
ILU-Tech and BoxTech: Big Picture + Demo



Two registries, one lookup — the API decides which source answers.

Discussion and Q&A

Thank you for your attention

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