



INTERNATIONAL UNION
OF RAILWAYS

Developing Innovative Solutions for Passenger through UIC Collaboration

Laying the technical building blocks

Enrique Ruiz

Managing Director – IT Operations – Hit Rail

UIC Passenger Week

An IT services firm by the railways, for the railways

Hit Rail was born 36 years ago from a UIC project to develop the Hermes system

- Hit Rail is owned by 11 railway companies
- We work exclusively for the railways
- Serving more than 70 railway companies

We contribute to the success of the sector in a spirit of service and collaboration.

We deliver and run common systems, after commonly-defined specifications, on a neutral and not-for-profit basis.

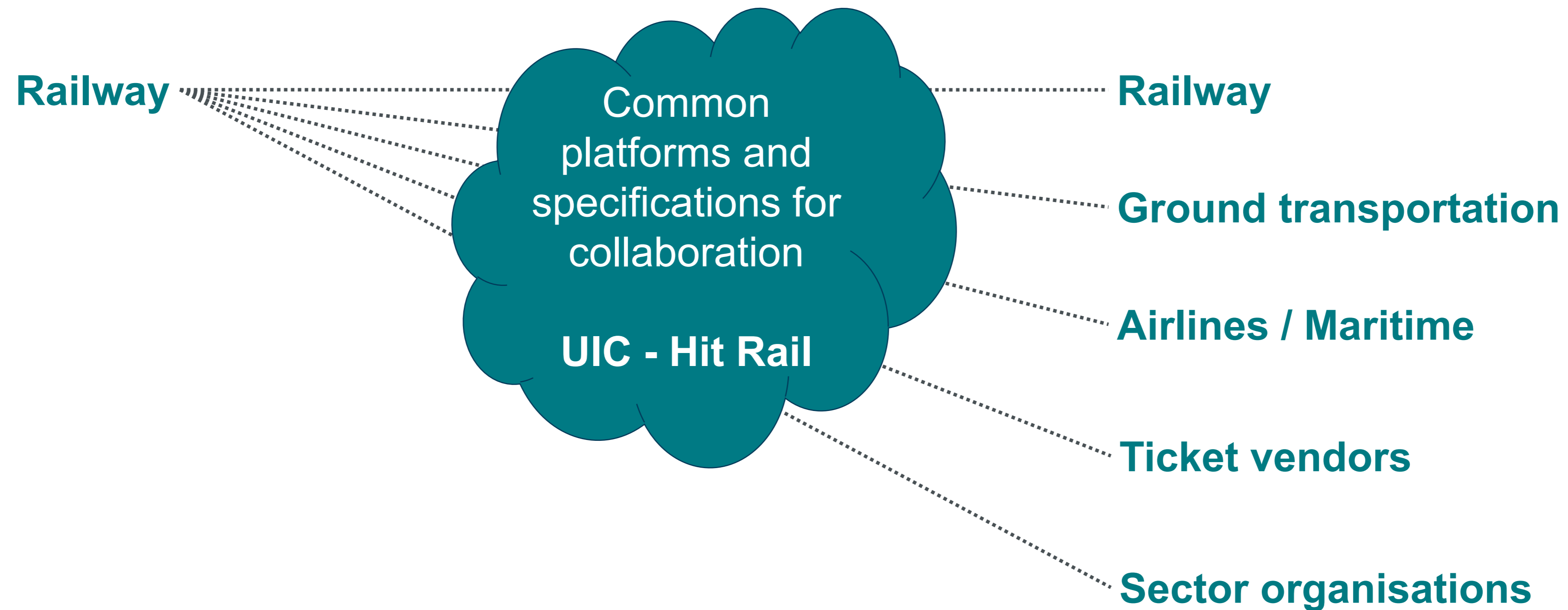
UIC and Hit Rail, a long and successful history of collaboration

Hit Rail delivers common platforms which are critical for the railways to implement their own systems and applications.

Most of these projects come up from UIC initiatives or standards.

- First the Hermes VPN
- Then the HEROS translator (for UIC IRS 90918-1)
- Then a new set of services for UIC: eTCD, DRTRF, RTMDE
- Then H2O for OSDM interoperability
- And services for Freight (H30) and Infrastructure (CI SaaS)

Building common standards and platforms for railway and multimodal collaboration



Focus has shifted, from rail only... → To multimodal

Enabling the Ticketing Roadmap

1. Having more up to date timetables

→ UIC MERITS

2. Being able to buy train tickets at least 6 and up to 12 months in advance

3. More up to date tariff exchange, enabling through tickets

→ UIC DRTF

4. European wide standardized API for selling train tickets

→ OSDM

→ H2O Translator

5. Increased harmonization of ticketing conditions (general conditions of use)

6. Full digitalization of tickets

→ UIC eTCD

7. Real time information during the journey

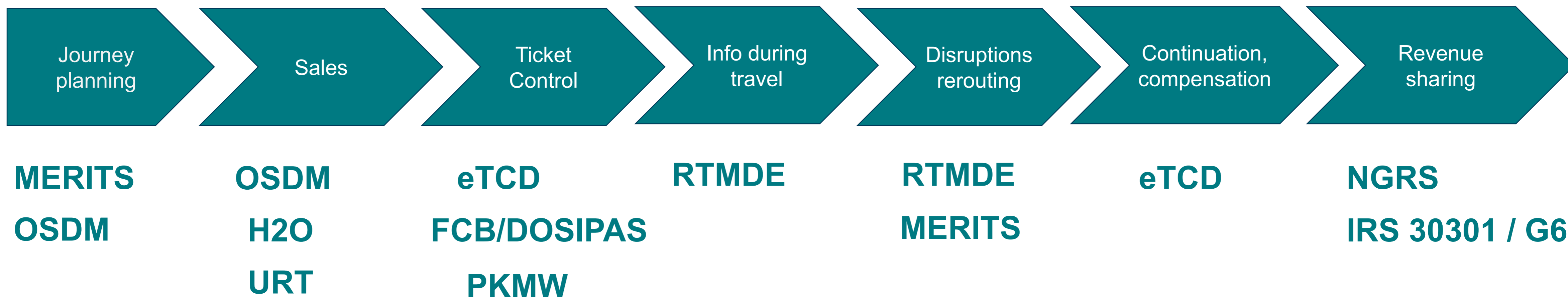
→ UIC RTMDE

8. Better support during disruptions and delays

→ UIC eTCD

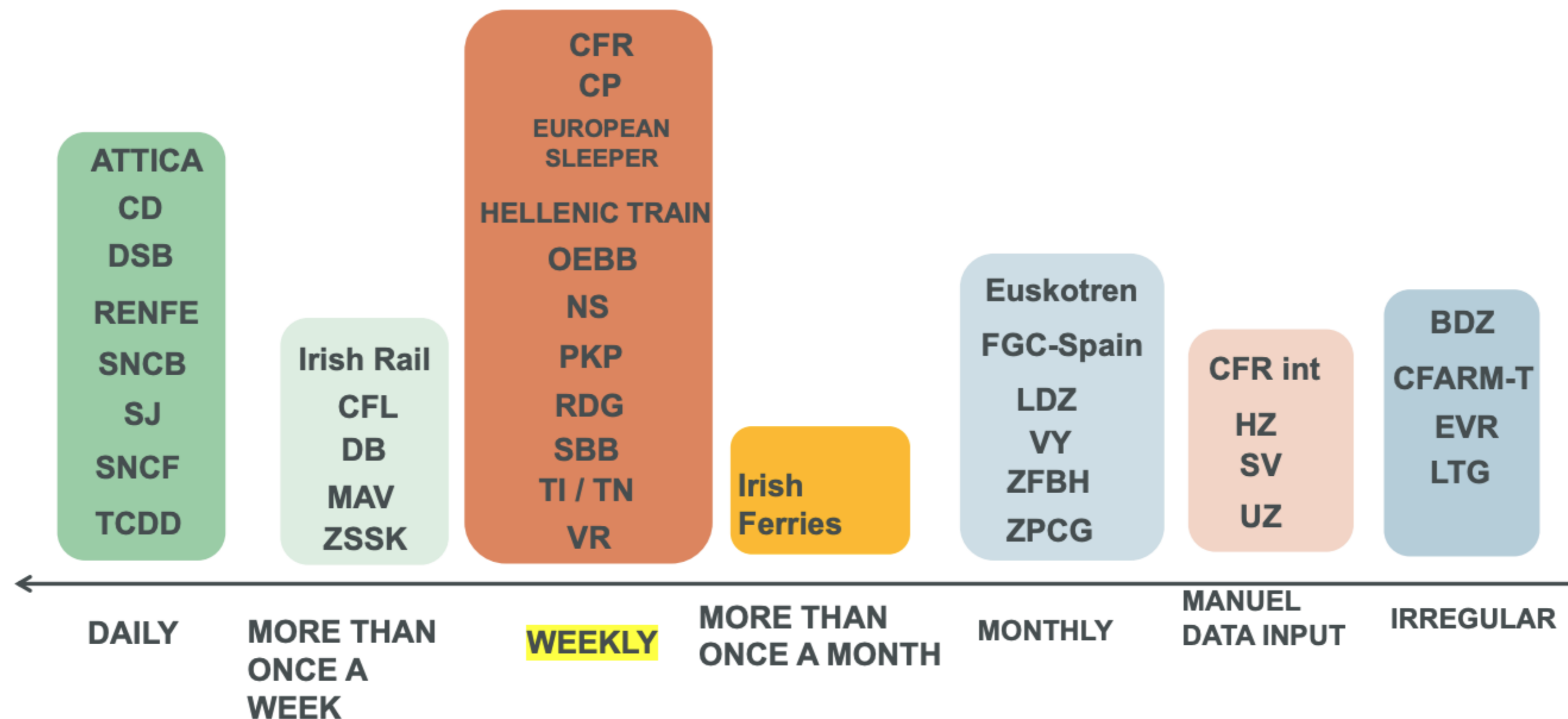
A coherent set of solutions, enabling innovative railway and multimodal applications

All across the passenger journey and service provision...



UIC MERITS

A pan-European joint timetable effort via UIC collaboration
 With established data aggregation and quality processes
 Enabling stakeholders to provide quality journey planning



OSDM is the way forward for Sales and Distribution

OSDM is a great achievement of the sector via UIC collaboration:

- A state-of-the-art, REST API specification
- An open specification, publicly available (at no cost)
- Multi-modal (not only rail) and compatible with Open Journey Planner
- Enabling retailer, distributor and fare provider roles
- Enabling seamless comparison of offers and dynamic pricing
- Combining offers from different carriers into one journey or a single ticket
- A live community from contributing stakeholders, not only railways
- Business and real-life-tested, evolved (to v3.7 and v4.0) after years of implementations
- With great momentum, and involvement from other modes of transport
- Brian Simpson – MEP 2011.

Ensuring the success of OSDM and TR with interoperability

H2O

Hit Rail H2O is a neutral and common platform for real-time translation for OSDM

SBB, SNCF, DSB, DB, (PKP) are using H2O, migrating to OSDM while keeping interoperability with 90918-1 for passenger reservations.

H2O is evolving to provide interoperability between versions of OSDM: **O2O**
OSDM v3 ← → OSDM v4

The OSDM ecosystem is much more powerful and flexible with a common interoperability solution. Changes, migrations, evolution of the standard and the upgrading of OSDM systems are greatly facilitated.

Further H2O interoperability solutions

Hit Rail **H2O** is further evolving to provide:

Interoperability between real-time platforms

TEL (TAF) TSI → RTMDE (operational)

NeTEx / SIRI → RTMDE (operational)

RTMDE → NeTEx / SIRI

Airline to Railway interoperability:

NDC → OSDM

Other TEL TSI standards:

OSDM ← → NeTEx / Transmodel

UIC eTCD for after-sales: ticket control and more...

eTCD is a successful UIC platform technically provided by Hit Rail, operating at the ticket level (after-sales)

It processed 40 million passenger tickets in 2025

- Ticket control
- Ticket activation / deactivation
- Delay confirmation

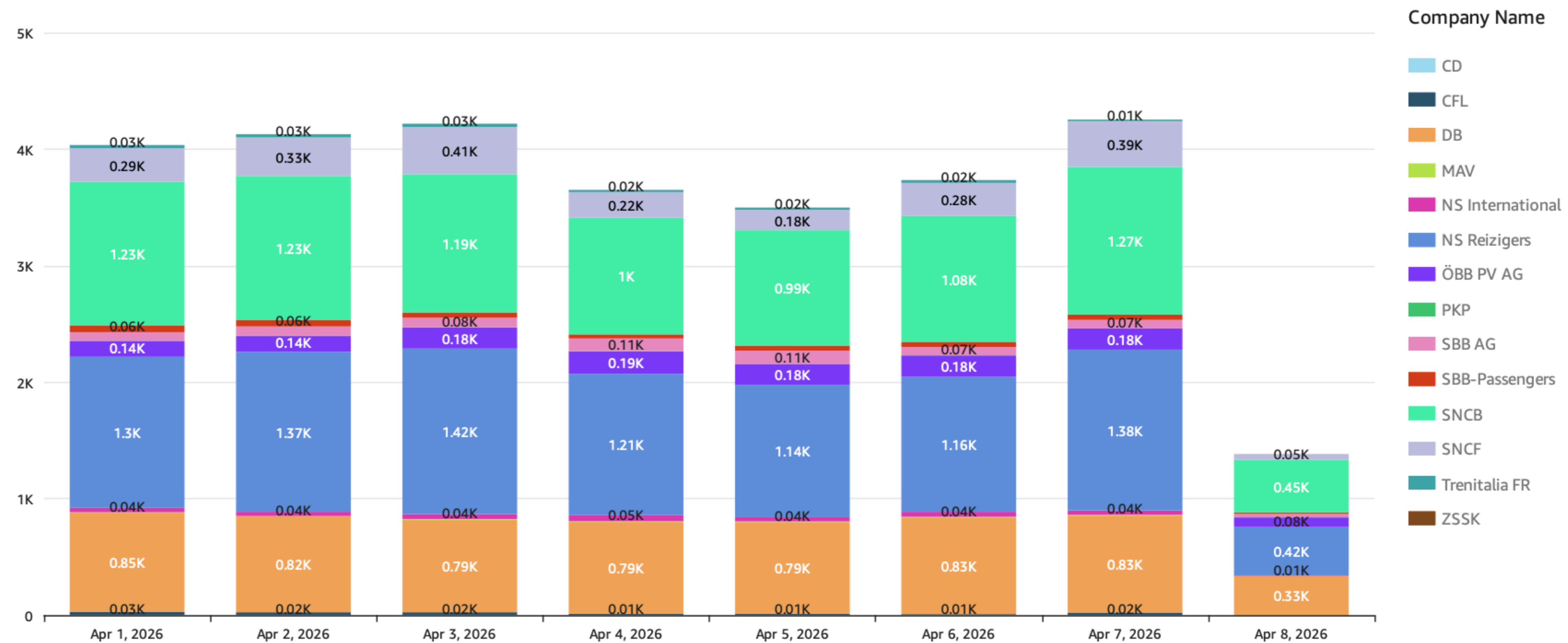
eTCD is the technical basis for the **Agreement on Journey Continuation**

eTCD is the basis for **multimodal collaboration** at ticket level (Airlines)

RTMDE: Pan-European real-time train information

RTMDE is a UIC platform, technically provided by Hit Rail, which aggregates and distributes real-time information on passenger trains. (Train level). It makes pan-European real-time data available to carriers, ticket vendors and other sector organisations.

Service Runs received by Data Provider



Multimodal: Next Generation Revenue Sharing

NGRS is a new UIC specification enabling revenue sharing for multimodal passenger journeys involving different stakeholders and different modes of transport: Car sharing – Bus – Rail - ...

Hit Rail is supporting the UIC Multimodal Working Group and the Ticketing Roadmap phase 2 (multimodal) with a **pilot NGRS central service**.
Available in Q3 2026

Intended for pilot projects and advancement of the UIC NGRS specification.

Two current challenges for European transportation applications...

EU Sovereign IT... a new frontier

Hit Rail and many railways are running their IT applications in the Cloud with US public cloud providers (hyperscalers): Amazon AWS, Microsoft Azure, Google Cloud.

In the current complex geopolitical climate, some stakeholders are looking at EU sovereign IT cloud solutions, and Hit Rail wishes to support and work (and learn) with the **European Cloud IT sector**.

Hit Rail has developed an **EU Sovereign IT strategy** with four pillars:

1. **Analysis, including evaluating technology choices**
2. **EU cloud providers, selection and involvement**
3. **Piloting / preparedness (not outright migration)**
4. **Stakeholder engagement / dissemination**

Let's discuss...

Challenge: A well-governed bridge to AI

AI is very quickly changing the way people work and access information.

AI is becoming the interface.

We, as a sector, have to plan and build a well-governed data pipeline, from the railways as data providers towards the AI LLMs as data intermediaries. And from the LLM as interface to the railways as fare providers (OSDM)

Data uplink

Railways as data providers → Platform/governance → LLMs (intermediaries) → Applications & Final users

Sales downlink

**Applications & final users → LLMs → OSDM distributor (optional but desirable) → OSDM
Railway as fare provider**

Effective data governance for AI is key and requires UIC involvement, along with technical solutions.

UIC and Hit Rail are laying the building blocks for stakeholders to build innovative transportation applications

- Open standards
- Which are jointly specified and evolved
- Running cost-efficient common platforms
- From a neutral and trusted standpoint
- Enabling innovation, collaboration and competition



INTERNATIONAL UNION
OF RAILWAYS

Thank you for your attention

CONTACT



Enrique Ruiz

Managing Director – IT Operations - Hit Rail

Tel +34 638 150 303

E enrique.ruiz@hitrail.com

Stay in touch with UIC:    YouTube [#UICrail](#)

shop.uic.org



WATCH NOW 

uic.org

