Passenger rail activity is one of UIC’s key priorities, representing a major area of activity for our members and a yardstick against which the success of the railways is measured by the general public. Implementation of passenger rail services is a complex activity and relies on the standards produced by UIC.

The purpose of this brochure is to present passenger rail activity in all its diversity: distribution, high-speed rail, intercity trains, stations and regional and suburban transport, not forgetting tourist trains. The brochure showcases the high-quality analysis and solutions provided by our members in numerous areas, including:

- ticketing standards applied by all of our European members for international transactions;
- tools to support people with reduced mobility;
- training sessions and workshops on high-speed rail to support its development;
- the “Station Security” handbook, used in Russia during the FIFA World Cup;
- IRSs on information provided in stations, helping passengers to navigate different countries;
- publication of a brochure on sustainable tourism, used by our partners Wattrain and Fedecrail.

UIC provides added value by serving as a forum not only for development of each of these complex areas, but also for delivery of an overarching vision for the passenger rail system to our members.

The Global Passenger Forum is being revived within this context, and I am particularly pleased that Manel Villalante i Llauradó will fulfil the role of Chair of the Forum. He will be able to provide the vision required in order to implement a joint strategy.

This strategy will aim to bring together the various elements of passenger rail activity and initiate specific actions to guide UIC in implementing a MaaS (Mobility as a Service) concept within the scope of its memorandum of understanding with UITP.

Indeed, UIC and UITP share the common goal of placing public transport at the heart of mobility, and this brochure outlines a number of ideas in this regard.

François DAVENNE
UIC Director General
GENERAL CONTEXT OF THE PASSENGER RAIL BUSINESS

Transport of passengers by rail accounts for 50% of all rail activity, 8% of overall passenger transport, 1% of CO₂, less than 2% of GHG emissions from Passenger transport and is believed to be the backbone of future mobility.

With the emergence of new technologies, along with changes in customer behaviour and choices regarding mobility, and the development of competition in the rail sector, railway undertakings and infrastructure managers are shifting towards a more customer-centred approach in providing services, by investing in innovation and research to offer more personalized and seamless journeys.

Against this background, the UIC Passenger department acts as a lever to transform the railway business, by offering sectoral technical solutions (IRS), opportunities for knowledge exchange, networking platforms and tools, and supporting railway undertakings and infrastructure managers in all aspects related to passenger transport.

Work at the UIC in the field of passenger rail transport is guided by members through their participation in the Global Passenger Forum, and is divided into five areas:

- Passenger Services Group
- Intercity & High-Speed Committee
- Commuter & Regional Train Services
- Station Managers Global Group
- Tourism Opportunities for Railways

And one special group:

- RIC/A (Agreements on the exchange and use of Passenger cars and self-propelled units in international rail traffic)

MISSION STATEMENT

Our mission is to excel in the provision of services for those UIC members who seek to benefit from our international expertise. Our main aims are to promote rail across the world, provide standards, and supply UIC members with the tools they need to grow their business and offer their customers optimum service, especially for international transport. Of course, UIC members also develop their own systems in line with their own strategies.

In addition, they need to understand international issues in order to enhance interoperability between them. At the UIC Passenger department, we provide platforms, organise congresses, training sessions, offer advice, and shared tools for our members to use. Our work builds on existing resources, takes into account current developments, facilitates the sharing of best practices, and prepares for the future by identifying emerging issues.
Technical harmonisation of the railway system has been a core objective of UIC, acting as an SSO (Standards Setting Organisation), since its creation in 1922.

Its members – the operators of the world’s railways – have, over the years, developed the “UIC Code”, comprising UIC leaflets, which define the common rules that apply to ensure safety and efficiency in the design, construction, operation and maintenance of the railway system.

A significant number of these deliverables are used outside the railway operating community.

At the General Assembly in July 2018, it was agreed that no new leaflets will be produced, all new topics will be developed as an IRS and there will be a systematic migration of the residual leaflets to IRS International Railway Solutions are a structured framework of standardised documents prepared and published by the UIC for use within the railway sector.

They blend together a range of voluntary solutions to support the design, construction, operation and maintenance of the railway system and the services that the sector provides. There are different IRS categories: technical requirements, technical specifications, technical reports, state of the art, user guidelines.

All these publications are available on the UIC Railway Technical Publication website: https://www.shop-etf.com/.

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STRUCTURE OF THE UIC PASSENGER DEPARTMENT

UIC/CER
High Level Passenger Meeting

GLOBAL PASSENGER FORUM

InterCity & High Speed Committee

Passenger Services Group

Commuter & Regional Train Services

Station Managers Global Group

Tourism Opportunities for Railways

RIC/A Special Group

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The UIC Global Passenger Forum has been conceived in order for members all over the world to jointly address a global approach to the UIC Passenger activity, encompassing that of the five Passenger sectors: Intercity and High-Speed, Commuter and Regional Trains, Stations, Passenger Services Group, and TopRail, as well as the relevant projects, and to discuss and set common priorities, strategies and directives, eventually to be coordinated with other Forums and Platforms where appropriate.

The purpose of the Global Passenger Forum is to:

- Set out a global and strategic vision for UIC Passenger activities, and establish guidelines and priority lines of work;
- Transversely coordinate and supervise passenger related work conducted by the five groups and committees;
- Collect results and deliverables from the different activities and projects undertaken, with a view to disseminating outcomes as widely as possible among members, within the scope of applicable intellectual property rights;
- Select and endorse candidates put forward for the positions of chairperson or other roles within the groups and committees, to be ratified by the UIC General Assembly in accordance with UIC Statutes;
- Coordinate with the Rail System Forum and other platforms, such as Digitalisation, Standardisation, RICG, Safety, Security Environment Research, etc., on key issues relating to Passenger activity;
- Promote and facilitate meetings with other organisations relevant to Passenger transport, such as UITP, CIT, OSJD, CER, RNE, American Public Transportation Association, ANPTrilhos, etc.
- Integrate and coordinate, in a coherent and consistent way, activities and projects relating to Passenger transport underway in other UIC regions. Recommend the approval by the General Assembly of cross-regional projects and activities adopted by the various groups and committees under the Global Passenger Forum.
HIGH-LEVEL PASSENGER MEETING

The High-Level Passenger Meeting (HLPM) co-organised by UIC and CER is an event aimed at European Passenger CEOs to discuss strategic topics relating to challenges faced by the European railways.

This meeting brings together top managers from Passenger railway companies in Europe, for discussions on important rail Passenger transport policy issues. The purpose of this meeting is to review key questions about European railway passenger policy, and to understand the technical and political challenges facing Passenger transport in the future.

During the last HLPM on 8 March 2018, the following subjects were discussed: liberalisation, incorporation of new technologies, new entrants, relationships with third parties, European initiatives on distribution, quality of Passenger services, the role of the railways in the EU Mobility Strategy, Sustainability, environment & climate-friendly travel, and other topics of common interest.

This event is also a chance for CEOs to meet and organise bilateral/multilateral discussions.

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SPECIAL GROUP
RIC/A

Regolamento Internazionale delle Carrozze / dei treni Automotori*

Since 1922, the RIC/A agreement has governed the exchange and use of coaches and self-propelled units in international traffic. The RIC and RIA Agreements are administered by the RIC/A Special Group and by the Bureau which is part of UIC Passenger department. Both describe the operation of the system and the responsibilities of the relevant actors (RUs and keepers) and are continuously adapted to enable the reciprocal use of Passenger cars or self-propelled units in international traffic.

These agreements need to be updated in line with the ever-changing railway environment. To ensure this, RIC and RIA experts in working groups reporting to the RIC/A SG suggest amendments, which are put to a vote at the RIC or RIA General Assembly and are published as new amendments to the agreements, which enter into force each following January.

As part of the cooperation between RUs, European regulations contain rules on safety management, stipulated in the Regulation 2018/762 and in the Directive 2016/798.

In 2015, a quality management system (QMS) based on ISO 2859 was introduced into the RIC Agreement and then the RIA.

With a view to mainstreaming paperless technology, the possibility of establishing a common software was examined, with a view to producing harmonised results making it possible to determine the level of quality per member in relation to trains exchanged. This implementation strategy offers the following benefits:

- A representative overview of the level of quality achieved by an RU or wagon keeper for all the fleet exchanged under RIC or RIA rules.
- Respect of the control process defined in the QMS since the controller relies on the software.
- Identical inventory and results display system common to all members.
- Timely notification to all members in case of serious defects on vehicles.

The implementation of a common QMS software is proposed for 2020.

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PASSENGER SERVICES GROUP

Chair: Roberta Rizzo, Trenitalia S.p.A.
Vice-chair: Sophie Immenroth, DB
Secretary: Sandra Ferrari, Trenitalia S.p.A.

UIC: Fabrice Setta
UIC: Vanessa Perez

STRATEGIC PRIORITIES AND OBJECTIVES

- Enable European distribution of railway tickets for UIC members in a cost-effective manner by taking into account technological developments and European regulations.
- Cooperation between UIC members in order to provide common standards related to all processes involved in railway distribution – timetables, fares, tariffs, booking, fulfilment and after-sales.
- Agreement on IT standards for telematic applications related to Passenger transport.
- Establishment of a common position on good practice relating to implementation of the European Rail Passengers’ Rights and Obligations (1371/2007).

RELATIONSHIP WITH OTHER BODIES / PARTNERS

- EUA: participation of UIC experts in the TAP-TSI working parties and the synchronisation of UIC IRS with EURA Technical Documents as part of the UIC – EURA Technical Agreement.
- OSJD: joint management of OSJD UIC/IRSs leaflets.
- CER: TAP-TSI regulations and relations with the European Rail Agency.
- CIT: all related legal issues like ticket layout, GDPR, Passenger Claims conference, etc.
- UITP and IATA: intermodal projects Door-to-door and Air+Rail, and also other issues concerning railway stations...
PATRIC (AUDIT)

Passenger Accounts and Ticketing Rules Inspection Committee

The cross-distribution of domestic and international tickets is based on multilateral agreements provided by UIC IRS 90918-1, 90918-8, 90918-9, UIC accounting Leaflet 301, and by the Special Conditions of International Carriage (SCIC) for different types of ticket. However, these transactions are not always underpinned by automated data exchange with the vendor system. Therefore, the accounts kept for certain types of ticket are based on the subsequent upload of sales data sets into international accounting systems in accordance with UIC Leaflet 301.

In this context, the carriers trust that the revenue that ticket issuers are entitled to from the sale of tickets, will be correctly calculated and allocated to them. Moreover, they rely on the relevant conditions of carriage and tariffs being correctly applied and the agreed measures on revenue securing, being duly implemented.

In order to ensure that the revenue resulting from such sale is being correctly apportioned, intermittent audits are carried out by the PATRIC Steering Board in accordance with the regulatory framework set out in UIC Leaflet 120. These audits are to take account of the evolving competitive environment in their execution.

MERITS

Multiple East-West Railway Integrated Timetable Storage

MERITS is a single database containing the timetable data of a large number of railway companies, which is integrated and reproduced twice a week. MERITS is designed to allow each railway company to have rapid access to all the data needed to produce timetables and to operate with a single source of data, thereby doing away with large volumes of multilateral exchanges.

The MERITS timetable data consists of:
- Train schedules and services
- Location database
- MCTs (Minimum Connecting Times)

Use of MERITS data

MERITS integrated data is used to ensure broad coverage of railway undertaking timetable data, including domestic and international trains, for the following purposes:
- Customer information
- Journey planning
- Ticket booking
- Feeding mobile applications

The UIC licenses the MERITS Integrated Data to third parties.

For more information and subscription:
https://uic.org/merits-database
**PRIFIS**

**Price and Fare Information Storage**

PRIFIS consists of a database containing the price and Tariff data for more than 40 railways. The price and fare data represented are the NRT (IRS 10108-1). PRIFIS is designed to allow each railway company to have rapid access to the data it needs and to operate with one single source of data, thereby doing away with the large number of multilateral exchanges.

Along similar lines to the timetable data offered by MERITS, this centrally-managed database contains, in standard format, all the fares and tariff data necessary to provide customers with comprehensive information. Data is supplied by the railways’ existing systems, either automatically via a web-based interface or manually using data capture software.

**PASSAGE**

**Passenger Accessibility Solutions Support and Action Group of Experts**

The PASSAGE Group of Experts has become the biggest reference in railway accessibility in the European railways. Its objectives are to create and safeguard professional exchange among the railways to identify the work to be done at national and transnational level and potential solutions concerning accessibility issues.

The PASSAGE group holds three meetings per year. In those meetings, the results of the activities of the group are reported, and the latest news on accessibility from each company is discussed.

During the meetings there is also an update about the performance of the PRM- ABT (Assistance Booking Tool), which was created to provide assistance services to international Passengers by connecting PRM centres.

**Publication:** All the best practice information was collected and published in UIC Leaflet 145, which provides a guide for the provision of accessibility services in railway companies, and is periodically updated by members.

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**IDENTIFYING PROBLEMS**

- Identify the work that may still be necessary at national and transnational level so railway undertakings can comply with European legislation on passenger rights

**GROUP OF EXPERTS**

- Three meetings per year. In every meeting there is a technical visit in which the hosting company shows their improvements in accessibility

**BEST PRACTICES EXCHANGES**

- Enable representatives from other companies to know how one company is giving solutions to problems that may appear in other undertakings

**ADAPTATION TO NEW LEGAL REQUIREMENT**

- Technical visits

**TECHNICAL VISITS**

- UIC Leaflet 145

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**Paola NEGRI**

Passenger Accessibility Solutions Support and Action Group of Experts
The Passenger Expert Subgroup is the umbrella body for the PSG’s commercial and technical activities maintaining international distribution cooperation between UIC members and transforms their commercial and regulatory requirements into technical standards and interfaces for international sales and distribution systems. The group focuses on:

- **SALES PROGRESS GROUP**

  The subgroups create and maintain a framework of mutual trust for international tariff cooperation between railway undertakings. They aim to harmonise the conditions of carriage and sales and contribute to the drafting of the Special Conditions of International Carriage (SCIC). The groups also collaborate with the UIC PSG technical groups on the development of specifications and IT solutions for each commercial unit.

  - The commercial groups are: NRT – IRT – NT for Non-integrated Reservation Tickets (NRT), Integrated Reservation Tickets (IRT) and Night Train tickets (NT).
  - EWT for East-West Tariff.

- **EAST WEST TARIFF**

  This committee aims to organise tariffs and accounting between Eastern and Western European countries, given the differences in the systems with the aim to:

  - Ensure through-ticketing for passengers between railway undertakings which apply the CIV Uniform Rules and those which apply the Convention for International Passenger Transport SMPS,
  - Achieve substantial harmonization of the conditions of carriage and of sale thereby providing a suitable response to the increasingly competitive market environment
  - Draft recommendations for the SCIC-EWT as well as provisions for the issuing of tickets and accounting. In doing so it is necessary to consider updates made to the GCC-CIV/PRR and the SMPS.
The Passenger Services Solutions oversees the development and maintenance of specification for data exchange for the distribution of international rail tickets. The specifications for data exchange cover timetable enquiries, reservation, ticket inspection etc.

The group works closely with the ticket layout and security groups and the commercial units to translate their requirements into solutions specific to each unit (IRT, NRT, NT, EWT). The group also coordinates with the European Union Railway Agency (EURA) on the development of the TAP-TSI (Telematics Applications for Passengers – Technical Specifications for Interoperability).

This group deals with the security features of international rail tickets. Rail tickets can be protected by Security in Paper (security background, defined by CIT), Security in Data (most often a 2D barcode), Security in System (reference to a contract on a server) or a combination of two or more of the above.

The public key management website is used to exchange public keys to ensure that barcodes are not counterfeited. https://railpublickey.uic.org/?l=fr

The Ticket Layout Group defines rail ticket layouts for CIT paper, blank paper (print-at-home tickets) and on-screen display formats.

Better integration for door-to-door journeys (UIC D2D)

Integration between rail and other surface transportation services, such as local public transportation, buses, car and bike sharing, is beneficial to all involved parties.

For rail companies, the main benefits include improving customer service, additional Passenger volumes, encouraging the modal shift, new ancillary revenue sources and the opportunity to evolve from a pure transport operator to a mobility service provider.

The project will enable rail companies to offer door-to-door journey packages through digitally-enabled ticketing, journey management and validation systems and will leverage the growing adoption of account-based ticketing by transport providers.

Moreover, the project will define guidelines and formats for the exchange of real time data, including train tracking.

Better integration with air transportation (UIC AIR+RAIL)

Integration between rail and air transportation can provide several benefits to rail operators, including access to a global network of online and traditional travel agents, additional international sales opportunities and a gain in market share in ground mobility solutions connecting to airports.

However, several challenges have slowed air-rail cooperation, especially the lack of common standards and of technology platforms enabling the distribution systems for multimodal tickets, different business models and the lack of business models for intermodal transport solutions.

The project will increase awareness and member knowledge on the subjects of Air+Rail intermodal integration, removing or mitigating major technical barriers, providing technical guidance and standards in order to facilitate integration, as well as technical solutions to accelerate adoption.
The project will facilitate the establishment of multiple partnerships between airlines and rail companies enabling airlines to offer Air+Rail journeys through any sales channel (website, mobile, GDS, OTA, etc.).

Three-year program
Both projects will be conducted in four stages: Strategy, Design, Implementation and Operation:

- **Strategy**: Develop a position paper providing a clear strategic vision, based on analysis of context, trends and scenarios.
- **Design**: Develop technical guidelines and standards for implementing air-rail and door-to-door intermodal solutions.
- **Implementation**: Transform the ecosystem through a centralized platform providing a dynamic mapping registry between key entities.
- **Operation**: Ensure adoption and operation by the ecosystem.

Innovation Platform
During the PSG the 6 November 2018 in Rome, it was decided to start 2019 with a focus on innovation, as specific working group where all the members are invited to contribute within specific workshops on the following topics:

- **Passenger Services Digitalisation** with a focus on:
  - Transforming the Passenger experience through digital technologies and Omni channel / Technology developments in travel planning and shopping / Digital payments / Technology developments in the station experience / Technology developments in the rail journey experience / Update on ongoing UIC initiatives.
- **Blockchain** with a focus on:
  - Introduction to blockchain technology / Potential benefits and challenges of blockchain / Examples and use cases in transportation and other industries.
- **Intermodality** with a focus on:
  - Integration between Passenger rail and air transportation: case studies / New Distribution Capability and transformation of airline distribution / The Mobility as a Service paradigm.
- **Artificial Intelligence** with a focus on:
  - How Artificial Intelligence is transforming the Travel Industry / How Big Data Analytics and Data Science help meet travellers’ needs / Virtual Assistants and Conversational Interfaces: technological developments and applications / Examples and use cases in transportation and other industries.

INTERNATIONAL RAILWAY SOLUTIONS ON THE PASSENGER SERVICE GROUP SCOPE

**IRS in 2018, the following leaflets were migrated successfully to IRSs**

- Leaflet 918-0 to IRS 90918-0: Electronic seat/berth reservation and electronic production of travel documents - General regulations
- Leaflet 918-1 to IRS 90918-1: Electronic reservation of seats/berths and electronic production of travel documents - Exchange of messages
- Leaflet 918-2 to IRS 90918-8: Layout for electronically issued rail Passenger tickets
- Leaflet 918-3 IRS 90918-9: Digital Security Elements for Rail Passenger ticketing

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**IRS in 2019, the following leaflets will be migrated to IRSs**

**Tariff leaflets**

- Leaflet 108-1 to IRS 10108-1: Message spec for Non-Integrated Reservation Ticket (NRT)
- Leaflet 108-2 to IRS 10108-2: Message spec for Integrated Reservation Ticket (IRT)
- Leaflet 106 to IRS 10106: Special Conditions of International Carriage (SCIC)

**IT leaflets**

- Leaflet 918-4 to IRS 90918-4: Content and title will be changed, a new proposal will be made this year
- Leaflet 918-6 to IRS 90918-6: Electronic reservation of assistance for persons with reduced mobility - Exchange of messages
- Leaflet 918-7 to IRS 90918-7: Compensation in case of train delay - Exchange of messages
A COMPREHENSIVE SYSTEM ALLOWING DOOR-TO-DOOR TRANSPORTATION

High-Speed Rail is not just a question of technical knowhow, it is a complex reality involving multiple aspects, namely infrastructure, rolling stock, energy and operation as well as a host of cross-sectoral considerations, such as socio-economic, financial, commercial, managerial and training factors.

High-Speed rail systems are a combination of these various elements created using highly sophisticated technology and following in-depth analyses.

The current trend in world High-Speed rail network development shows a very sharp increase in the length of the network in Asian countries.

End-to-end transportation is a must and intermodal service complementarity is another of the many factors to be considered for the operational and financial success of HSR.

**High-Speed rail combines many different elements which constitute a “whole, integrated system”:**

- **Infrastructure:** new lines designed for speeds of 250 km/h and above; in some cases, upgraded existing lines for speeds of up to 200 or even 220 km/h and, especially upgraded High-Speed lines which have specific features as a result of topographical, relief or town-planning constraints, where speed must be adapted on a case-by-case basis. This category also includes interconnecting lines between High-Speed sections;

- **Rolling stock:** specially designed train sets;

- **Telecommunications, operating conditions and equipment, etc.**

- In view of the fact that many High-Speed trains are also compatible with the conventional network, the term “High-Speed traffic” is also frequently understood to signify the movements of this type of train on conventional lines but at speeds lower than those permitted on the new High-Speed infrastructure.

This rapidly expanding new transport mode is often described as the transport mode of the future for a number of reasons. As well as improving and giving a modern image of rail services, HS rail can yield greater customer satisfaction, and play a key role in achieving regional integration and creating socio-economically balanced societies as a whole.
INTERCITY AND HIGH-SPEED COMMITTEE

The Committee brings together several dozen UIC railway members who are either active in the High-Speed domain in their day-to-day operations or have identified High-Speed as a development objective.

Committee meetings and technical visits are an opportunity to exchange best practices, and discuss common problems. The IcHSC therefore greatly benefits attendees. “Benefit” means the chance to identify solutions to common issues, compare approaches, or develop a global vision. Studies are also conducted within the framework of the Committee in order to deepen understanding about particular subjects. The Committee offers a wealth of expertise to members through discussions, communication, studies and projects. UIC makes this expertise available in several ways: by means of the “High-Speed” database and maps, and by issuing reference documents and numerous publications.

STATISTICS – DATABASE AND HIGH-SPEED WORLD ATLAS

UIC produces unique data to provide an overview of High-Speed rail activities in respect of lines, rolling stock, traffic, etc.

UIC produces an Atlas on a yearly basis which contains details of lines and rolling stock used all around the world.

This Atlas contains all High-Speed lines in the world, in commercial operation, under construction, planned or long term planned.

It is the only document in the world to include not only information about all High-Speed lines around the world, but also data about their characteristics such as length, speed, equipment..., and rolling stock.

These High-Speed lines are also represented on maps classified by region (Europe, Asia, Africa, Middle-East, North-America and South-America) and country.

Available here: https://www.shop-etf.com/fr/catalogsearch/result/?q=atlasm20high-speed27
ALLIANCE OF UNIVERSITIES FOR HIGH-SPEED RAIL: “WORKING TOGETHER FOR MUTUAL BENEFIT”

In the same spirit of openness and sharing, in 2015 UIC created a unique global alliance of universities, with a view to building a more universal, more useful programme of research. The purpose of the Alliance is to:

- Create synergies, share knowledge about research and innovation between the parties;
- Improve education in the field of High-Speed rail;
- Exchange and disseminate information between Universities and UIC Members;
- Develop and implement a joint 3-year research programme on the development of High-Speed railways.

A dedicated Alliance page has been set on the UIC web site at: https://uic.org/high-speed-alliance

EVENTS

Training on High-Speed systems lev. I and lev. II.

Members send employees to seminars organised by UIC for training on High-Speed. The content is based on the state of the art and is delivered by recognised experts in the field.

Since 2004, UIC has successfully organised annual UIC Training Sessions on High-Speed Systems (THSS) which have been attended by more than 400 students to date. This training, divided in two levels, offers the students an insight into the technical, commercial and management aspects of High-Speed rail systems:

THSS Level I consists of a series of theoretical sessions and a technical visit to integrate.

THSS Level II is more in-depth and makes use of the special tool: High-Speed Planner 4.0.

Further details are available on the UIC website: https://events.uic.org/training-sessions-on-high-speed-rail-systems

World Congress on High-Speed Rail

The UIC World Congress on High-Speed Rail offers direct access to people and ideas, all gathered in a single location. It is known worldwide to be the most prominent and large-scale global event on High-Speed rail.

Every two years, the congress addresses strategic issues linked to the national and international development of High-Speed rail systems.

www.uichighspeed2020.com
uihighspeed@uic.org
INTERNATIONAL RAILWAY SOLUTIONS FOR HIGH-SPEED RAIL

The IRS High-Speed working group meets regularly to produce new IRSs or to update/migrate UIC leaflets to become IRSs. Finally, the Committee approves the International Railway Solutions for High-Speed developed by its working group. Once published, the IRSs will serve as a benchmark for all stakeholders.

IRS 60661  Railway application - High-Speed-Dynamic integration tests and trial operation before revenue operation, April 2019

IRS 60673  Implementation of a High-Speed Railway, Design Phase, sent for publication on March 2019

IRS 60675  Implementation of a High-Speed Railway, Operation phase – last feedback collected from the WG after proofreading, sent for publication on 18 April 2019

IRS 60680  Implementation of a High-Speed Railway, Design Phase – draft review 2.1, May 2019 – sent to IRS WG by mail on 28 May 2019 – comments by 12 June 2019

IRS 60681  Communication and Signalling. First draft

IRS 60682  Energy. First draft

IRS 60683  Interface. First draft

IRS 60660  Measures to ensure the technical compatibility of High-Speed trains, issued in August 2002 – 2nd ed.

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RAILWAYS USED BY 80% OF PASSENGERS IN THE WORLD

It is often said that Passengers represent half of the railway business in the world, but it is also true that a very high percentage of people who take the train are travelling on Commuter and Regional networks.

These transport systems are well spread around the world, and there are many common and different approaches, elements and characteristics: capacity, intermodality, accessibility, etc., but one common point may be the existence of PSO, Public Service Obligation contracts, which are the expression of society's requirements in the field of transportation, involving decision-makers, urban and land planners, public authorities, etc.

Consequently, it is increasingly necessary for all agents involved to be familiar with the many aspects and implications of Commuter and Regional Train Services (both positive and negative) in order to be able to take decisions on the development of transport systems in general and the railways in particular, with full knowledge of the facts.

The purpose of the Commuter and Regional Train Services, CRTS, is to obtain a continuous best-practice overview of operating Passenger railways in regional and metropolitan areas, how to manage huge Passenger flows and to satisfy customer expectations and how to manage cross border services.

Given the importance of the subject, it also cooperates with other UIC groups and other entities like UITP or IEA, and with other UIC regions.

ON-GOING PROJECT

UIC CRTS working group is developing a Handbook to provide an overview of best practices on Commuter and Regional Train Services around the world.

The purpose of the project is to create a “Handbook on Commuter and Regional Train Services”. The priorities of this project are to give an overview of sustainable best practices on CRTS from around the world and to focus on some regional specificities when relevant, as well as analyse future challenges for the sector.

The Handbook will be divided in five different main chapters (main principles, Safety and Security, Ticketing, Legal issues, Customer communication) and each chapter will...
contain a description of the current situation in relevant countries and outlook scenarios: ideas about how medium and long term development could look like, conclusions and recommendations.

**EVENTS**

Since 2016, UIC co-organised a three-day training program with the aim to examine all the elements, as well as all the different types of comprising Commuter and Regional Train Services (CRTS) and to measure their impact impartially and objectively from the political, social and economic standpoints.

**PUBLICATIONS**

Railway Handbook 2017 (Energy consumption and CO₂ emissions)

**UIC Contact**

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TOURISM OPPORTUNITIES FOR RAILWAYS (TOPRAIL)

FOSTERING INTERNATIONAL COOPERATION REGARDING TOURISM BY RAIL

In the context of steadily growing international tourism, TopRail is a UIC group that actively promotes railway tourism products by increasing the visibility of service offerings. This is accomplished by providing a platform enabling close collaboration between stakeholders and their customers to encourage railway tourism opportunities. The objective of TopRail is to foster international cooperation for tourism by rail.

THE CHALLENGE OF THE TOURISM BY RAIL

Designing and creating a promotional platform (website) facilitating technical and commercial contacts between potential partners and the local tourism industry. Setting up workshops, conferences and conducting studies to analyse best practices and assess their portability.

EVENTS

TopRail Forum

The objective of the TopRail Forum is to bring together Rail or Tourism related industries, operators, institutions and customers to discuss about the business opportunities on the sector regarding Tourism and Railways.

The TopRail Forum I (held in Barcelona 2018) and II (held in Naples 2019) have addressed key challenges and new tourism trends to provide an overview of the different dimensions of railway tourism projects and services from a sustainable point of view. It intends to put together all the stakeholders in order to raise awareness about the potential of this market and contribute to the growth of existing and new tourist offers.
TopRail members named 2017 the International Year of sustainable tourism, and drafted the Guidelines on Sustainable Tourism which was reinforced by a Charter on Sustainable Tourism signed by the CEOS of TopRail members.

In 2018 and 2019, the group worked on Guidelines about methods to attract tourism to the railways, which should be published by the end of the year.

For more information, check the TopRail website http://www.toprail.org/
Whether for short or long distances, for regional, mass transit or High-Speed travel, the transport of Passengers by rail has a bright outlook. Among all the factors needed for the development of Passenger transport (technology, marketing, ticketing, financing, etc.), the common point for rail companies, customers and society, is railway stations.

The Station Managers Global Group (SMGG) aims to facilitate the exchange of best practices between actors and experts from around the world, organise events, launch studies and standardise interoperability subjects. It is an incubator for new projects relating to stations. Through the SMGG, UIC and its members are working to broaden the scope of railway station activities in order to offer greater added value for customers, cities and citizens such as Smart Solutions, Accessibility, Crowd Management or Intermodality.

Aware of the potential synergies and interactions with other scopes, the SMGG also puts the focus on UIC internal cooperation with the UIC Fundamental Values department in order to incorporate sustainable development, intermodality and security considerations. As public spaces, stations, should be accessible by people with reduced mobility (PRM), making cooperation with the PASSAGE group in charge of this matter, essential.

Members specifically defined the client journey, optimisation of the station, station management, small stations, transformation of the station, as major axes for the working group. Organised four time a year, SMGG members are in charge to define the scientific programme of the UIC nextstation conferences (details following).
ON-GOING PROJECT: HOW TO PREPARE THE FUTURE OF THE RAILWAY STATIONS?

Project: Long-Term Development of Railway Stations (LTDRS)

Timeframe: 2018-2021

LTDRS comprises four different work packages:

- WP2 - Smart solutions for railway stations (2019-2021)
- WP3 - Transit-Oriented Development (2020-2021)
- WP4 - Station of the future (2021)

PUBLICATIONS

Station security for station business: handbook on effective solution, October 2017

“SUSTAIN”, Best practices, benchmarking, guidelines and recommendations for Sustainable Stations, March 2017

Resource use benchmarking and performance enhancement in selected Asian railway stations with comparative analysis of resource use (Phase 2), October 2017

Resource use benchmarking and performance enhancement in selected Asian railway stations with comparative analysis of resource use (Phase 1), November 2013

UIC Leaflet 140: Accessibility to Stations in Europe, January 2008

UIC Leaflet 180: Classification of Rail Passenger Stations, February 2015

UIC IRS 10181: User information in Railway Stations, September 2018

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General context
Railway stations are usually considered from three perspectives: customer access to trains, business opportunities due to a high concentration of people every day, and interaction with the city and other transport modes.

Every two years, the UIC nextstation conference gathers professionals, local authorities, researchers and other relevant stakeholders from around the world.

Upcoming event
Following the success of the first six events held in Rome, Paris, Brussels, Moscow, Marrakech and Madrid, UIC, in close cooperation with Iranian Railways (RAI), is organising the 7th UIC nextstation conference, which will focus on “Railway Station Boosting the City”, in Tehran, Iran from 11 to 13 November 2019.

The purpose of this event is to understand how railway station can/should impact the city in a positive way.

In order to make the most of all opportunities, the UIC scientific committee proposes that the panellists and speakers share their expertise and best practices through eight parallel sessions, namely:

1. Station design 1 (urban planning),
2. Sustainability,
3. Smart solutions for stations,
4. Services & commercial activities,
5. Station design 2 (building oriented),
6. Mobility, accessibility & door-to-door solutions,
7. Safety & Security,
8. Station management & financing.

UIC nextstation website
In order to capitalise the knowledge from the previous conferences, it has been decided to create the official UIC nextstation website: https://nextstation.org

All the presentations made during these conferences, since Rome 2005, are available on the platform by clicking on “previous conferences”.

UIC nextstation handbooks

<table>
<thead>
<tr>
<th>2013</th>
<th>2015</th>
<th>2017</th>
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<tr>
<td><img src="image" alt="Handbook Cover 2013" /></td>
<td><img src="image" alt="Handbook Cover 2015" /></td>
<td><img src="image" alt="Handbook Cover 2017" /></td>
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## Glossary

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<thead>
<tr>
<th>Abbreviation</th>
<th>Full Form</th>
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<tbody>
<tr>
<td>CER</td>
<td>Community of European Railway and Infrastructure Companies</td>
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<tr>
<td>CIT</td>
<td>International Rail Transport Committee</td>
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<td>EURA</td>
<td>European Union Railway Agency</td>
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<td>IATA</td>
<td>International Air Transport Association</td>
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<td>IEA</td>
<td>International Energy Agency</td>
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<td>OSJD</td>
<td>Organisation for Cooperation of Railways</td>
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<td>UIC</td>
<td>International Union of Railways</td>
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<tr>
<td>UITP</td>
<td>International Union of Public Transport</td>
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<tr>
<td>CRTS</td>
<td>Commuter and Regional Train Services</td>
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<tr>
<td>D2D</td>
<td>Door-to-Door</td>
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<tr>
<td>EWT</td>
<td>East-West Tariff</td>
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<td>GDPR</td>
<td>General Data Protection Regulation</td>
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<td>GDS</td>
<td>Global Distribution System</td>
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<td>HLPM</td>
<td>High-Level Passenger Meeting</td>
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<td>HSR</td>
<td>High-Speed Rail</td>
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<td>IcHSC</td>
<td>Intercity and High-Speed Committee</td>
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<td>IRS</td>
<td>International Railway Solutions</td>
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<tr>
<td>IRT</td>
<td>Integrated Reservation Tickets</td>
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<tr>
<td>LTDRS</td>
<td>Long-Term Development of Railway Stations</td>
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<td>MaaS</td>
<td>Mobility as a Service</td>
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<tr>
<td>MCTs</td>
<td>Minimum Connecting Times</td>
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<tr>
<td>MERITS</td>
<td>Multiple East-West Railway Integrated Timetable Storage</td>
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<tr>
<td>NRT</td>
<td>Non-Integrated Reservation Tickets</td>
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<tr>
<td>NT</td>
<td>Night Trains Tickets</td>
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<tr>
<td>OTA</td>
<td>Online Travel Agency</td>
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<tr>
<td>PASSAGE</td>
<td>Passenger Accessibility Solutions Support and Action Group of Experts</td>
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<td>PATRIC</td>
<td>Passenger Accounts and Ticketing Rules Inspection Committee</td>
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<tr>
<td>PES</td>
<td>Passenger Expert Subgroup</td>
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<tr>
<td>PRIFIS</td>
<td>Price and fare Information Storage</td>
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<td>PRM</td>
<td>Person with Reduced Mobility</td>
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<td>PRM-ABT</td>
<td>Person with Reduced Mobility Assistant Booking Tool</td>
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<td>PSG</td>
<td>Passenger Services Group</td>
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<td>PSO</td>
<td>Public Service Obligation</td>
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<td>PSS</td>
<td>Passenger Services Solutions</td>
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<tr>
<td>QMS</td>
<td>Quality Management System</td>
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<tr>
<td>RIC/A</td>
<td>Regolamento Internazionale delle Carrozze / dei Treni Automotori</td>
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<td>RICG</td>
<td>Research and Innovation Coordination Group</td>
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<td>RNE</td>
<td>Rail Net Europe</td>
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<td>ROC</td>
<td>Railway Operating Community</td>
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<td>RU</td>
<td>Railway Undertaking</td>
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<td>SCIC</td>
<td>Special Conditions of International Carriage</td>
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<td>SMGG</td>
<td>Station Managers Global Group</td>
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<td>SPG</td>
<td>Sales Progress Group</td>
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<td>SSO</td>
<td>Standards Setting Organisation</td>
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<td>TAP-TSI</td>
<td>Technical Specification for Interoperability relating to the subsystem 'Telematics Applications for Passenger services' of the trans-European rail system</td>
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<td>THSS</td>
<td>UIC Training on High-Speed Systems</td>
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<td>TLG</td>
<td>Ticket Layout Group</td>
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<td>TSG</td>
<td>Ticket Security Group</td>
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<td>WCHS</td>
<td>World Congress on High-Speed Rail</td>
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<td>WG</td>
<td>Working Group</td>
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<td>WP</td>
<td>Work Programme</td>
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