

UIC's role to reduce the global carbon emissions and to promote railway in the world

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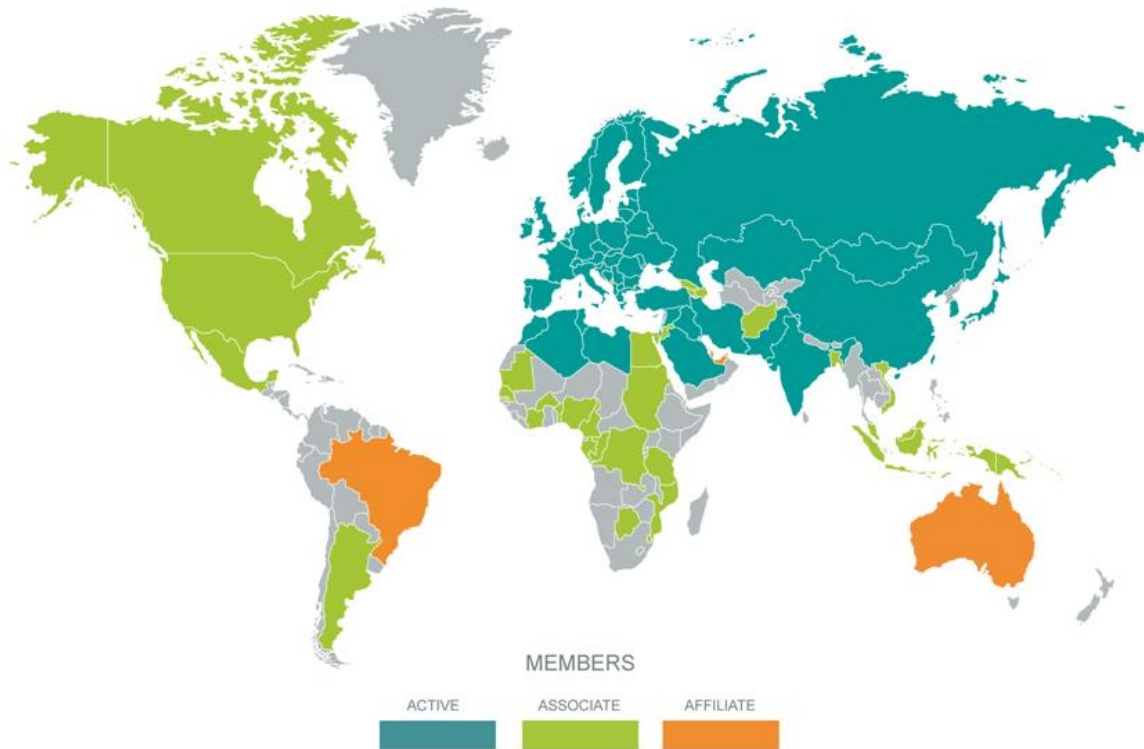
UIC activities

UIC (International Union of Railways) is the worldwide professional association representing the railway sector and promoting rail transport. There are around 240 UIC members in 100 countries distributed in "Active members", "Associate members" and "Affiliate members". Main members are railway undertakings and Infrastructure Managers. The last category covers institutes, universities and associations whose railway activities relate to urban, suburban or regional services or which conduct activities linked to the rail business. In China, Active members are China Railway Corporation (CR), National Railway Administration of P. R. China (NRA), Taiwan High Speed Railway Corporation (THRSC), Associate member is Taiwan Railways Administration (TRA), and Affiliate members are China Academy of Railway Science (CARS), Beijing Jiaotong University (BJTU). UIC and South West transport University (SWJTU) in Chengdu are also linked via a Memorandum of Understanding.

UIC organises around 85 worldwide congresses and conferences each year.

The main areas to serve the global railway community through UIC are as follows:

- Promotion of railway in the world, cooperation with over 100 institutions (UN, world bank, Ecosoc...), strategic advice
- 700 technical standards covering all railway fields for railway harmonization
- Dissemination of know-how between UIC members (conferences, congresses...)
- Structure of UIC in 4 main departments:
 - Passenger activities (High Speed, railway stations, regional services, commercial and distribution, tourism)
 - Freight activities (International corridors, heavy and long trains, combined transport, dangerous goods, global rail freight conference...)
 - Rail system (Signaling and control command, rolling stock, infrastructure)
 - Fundamental values
 - Environment (CO2 reduction, work with international entities, COP 21...)
 - Security (in the trains, in stations, global security...) and safety
 - Research



UIC members in 2016

Railway stations and Intermobility

As the main point of intersection between the city and the railway, the station is the only link within the rail system that has the ability to leverage its positive effects.

A showcase of railway activity, it is a key channel in the promotion and retail of transport products to travelers. As a structure in its own right it contributes to the identity and image of the transport medium it serves. As an everyday living space, it is the central link in the mobility chain as well as a key element in the organisation of intermodal transport. The station also represents the modernity, progress and development that have been embodied by rail transport since it was first invented.

The station is where many people involved come together in one place, bringing quite possibly very distinct or even incompatible, ways of operating, methods and interests.

“Intermobility” encourages station managers, network operators, local authorities, logistics companies, retailers and other operators to pool their expertise to enable all the stations’ functions to be properly organised and run.

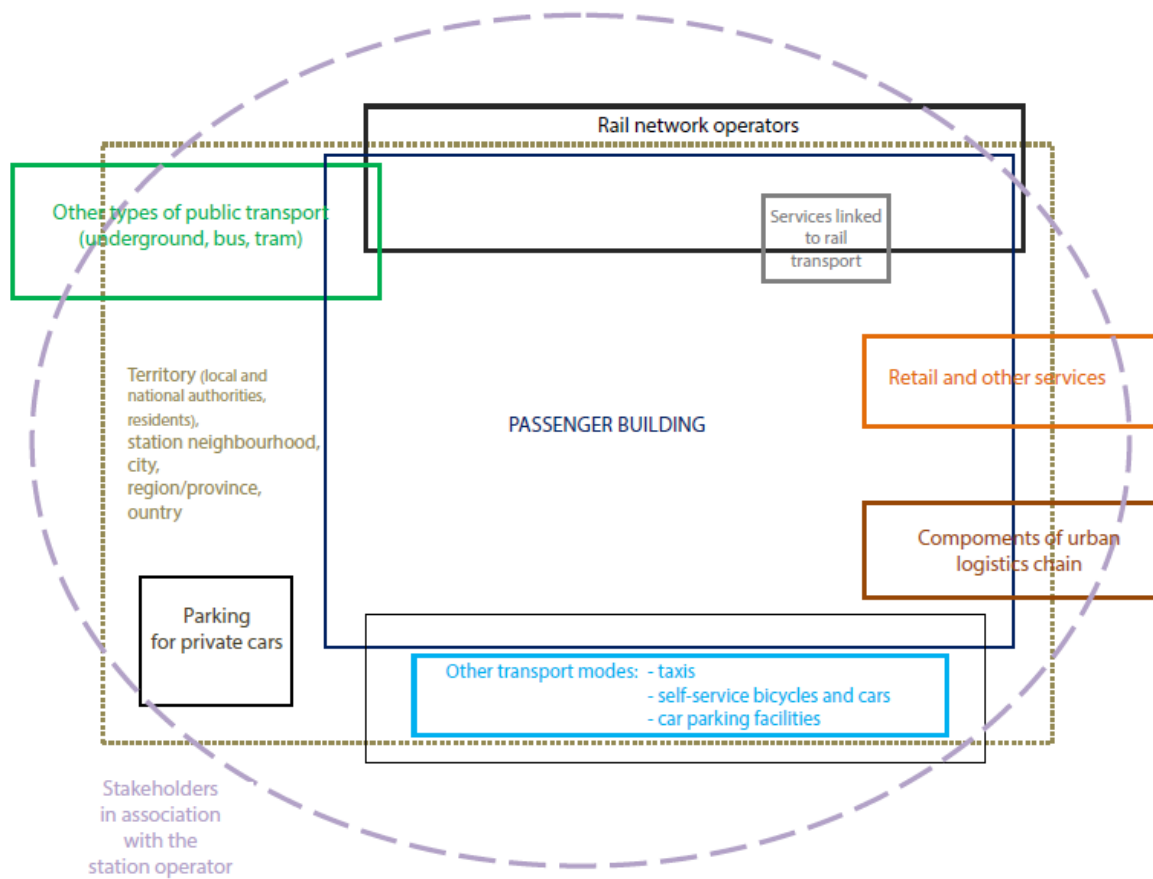


Diagram of stakeholders in multimodal stations

Accountability and coordination are two key factors in the integration of all the links in the mobility chain, enabling smooth running of the exchange hub. With stations attracting many businesses, they involve many different decision-makers with different issues which have to be reconciled with each other. The management of intermodality in the station is thus a very political matter.



Berlin Hauptbahnhof: the picture shows the shopping centre and the platforms on the lower levels. (Source: berliner-bahnen.de.)

It is above all in the running of the station that “intermobility” can play an important role in the generation of income. People passing through the station are not exclusively rail passengers, (or not even users of transport services) and so there can be an opportunity to create a market in and around the station. Indeed, retail and other services can bring added value to the time spent in the station between using two modes of transport, and also to the day-to-day lives of people living near the station. What is more, its often central location and the large numbers of people using it, confer many advantages on the multimodal station and mean it can provide numerous services.

The station presents a challenge to city planners and for this reason it must be taken into account in land development strategies. The station is increasingly thought of as a public space to such an extent that the public areas in the station and in the town come to be thought of as a single space.

The station epitomizes the economic development around which the city increases in density and forms new urban centers. Several examples illustrate how reinventing the station also means reinventing the neighborhood round the station.

In October 2015, UIC organised in Marrakech (Morocco) a worldwide conference especially dedicated to this subject with the slogan “Rethinking Stations for Future Intermobility”. This international event provided a unique opportunity for high-level speakers and panelists to address all strategic issues related to the creation, development and operation of railway stations. A special focus was done in station and urban planning, eco-friendly railway station, commercial use of station spaces and services, multimodality and accessibility. See website: www.nextstation2015.com.

Environmental issues

Climate change is the defining issue of our times. Rail offers an important part of the solution because of its very low carbon intensity. Based on expert analysis of transport energy consumption, and carbon emissions, UIC has set 3 targets: improve efficiency, decarbonise power and achieve a more sustainable balance of transport modes. Travelling by rail is on average 3-10 times less CO₂ intensive compared with road or air transport.

The General Director of UIC was appointed by the UN Secretary General (Mr Ban Ki-moon) as one of the Members of the High Level Advisory group on Sustainable Transport, highlighted some ideas serving the aims of common discussions. He stresses the fact that the approach towards sustainability follows the 4 I: Infrastructure, Innovation, Intelligence and Intermodality. The group will look for practical ways to unlock the potential of sustainable transport to contribute to poverty alleviation, sustainable growth and sustainable urbanization.

Each year, UIC publishes jointly with IEA (International Energy Agency) the Railway handbook on Energy Consumption & CO₂ Emissions. This book contains data and analysis of the rail sector's performance. These data provide an answer to understanding environmental issues and propose solutions for the decarbonisation strategies of the transport sector.

The special focus on infrastructure delivers a clear message to the audience: to meet the growing demand of transport by increasing investments on rail will produce important improvements both in transport efficiency and environmental impact. Rail infrastructure carries 10 times more transport units per km than road, using roughly 11 times less energy per transported unit.

During the COP21 negotiations on Climate Change in Paris end of 2015, UIC launched a campaign called "Train to Paris" which brought thousands of delegates including national governments, NGOs, decision-makers and journalists across Europe and Asia by train. This campaign highlighted rail as the backbone of sustainable transport and raised awareness of the importance of developing more sustainable transport systems. Trains converged synchronize in Paris from Germany, Belgium, the Netherlands and China through Mongolia and Russia just before the start of the COP21 negotiations.

Trainings

Railway companies are continually confronted with important challenges (e.g. market changes, technological innovations, legal issues, etc.) that can also affect the competencies and skills of railway personnel.

Human Resources directors and training providers have the arduous task of providing services that enable railway companies to keep up-to-date with these challenges by meeting the current and future training needs of all railway employees, thus making the railways a more competitive and innovative sector.

The core objective of the Expertise Development Platform, coordinated by UIC, is to enhance the effective operation of the different regional railway training markets, hence enhancing workforce development through sharing best practice in rail training across the entire industry.

UIC also develops the skills of railway employees in the shape of international/regional training sessions all around the world:

- Founding of regional networks of training centers in Europe, Asia, Middle East
- UIC World Congresses on Rail Training
- Hundreds of rail employees, students in rail universities and other stakeholders (UNIFE members...) have gone through UIC training sessions

Examples of training sessions:

- ERTMS (European Rail Traffic Management System)
- High Speed Systems, level 1 and level 2
- Rail logistic chains
- Private Public Partnership
- RAMS and LCC for railway infrastructure
- International Railway Business
- ...

The most recent passengers' trainings in China were organised by NRA, CR, CARS, BJTU and SWJTU on the following topics:

- High Speed Interaction workshop on Safety & Quality Standards of High Speed Rail Passenger Service
- High Speed rail for university
- Training Seminar on Fare Policy end of 2015
- Best practices in Passenger transport
- Training on management and services for passengers
- Maintenance of Rolling Stock for high speed trains
- Natural disasters management for rail systems