



INTERNATIONAL UNION  
OF RAILWAYS

# 11<sup>th</sup> Training Session on High Speed Systems



20-25 April 2015  
PARIS, UIC HQ

## General context

**High speed rail is not only a technical subject, but encompasses a complex reality involving various technical aspects such as infrastructure, rolling stock and operations and cross-sector issues such as financial, commercial, managerial, strategic and training aspects, each at its highest level.**

The high speed rail system combines these various elements using highly sophisticated technology.

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 rail services, promoting the modern image they seek to convey and yielding greater customer satisfaction, high speed trains also play a key role in the structuring of territories and helping to create socio-economically balanced societies at world level.

This highly efficient transport mode makes significant demands in terms of investment, technology, industry, the environment and its political and social aspects, and media coverage of these various aspects is often unbalanced. This misinformation affects public opinion as well as technical staff and decision-makers.

It is in this context and in an often tense economic, political and social climate in some countries that managers must take what are in some cases historic decisions regarding transport in general and rail transport in particular.

In order to meet the many requests from its members and with their cooperation for comprehensive and unbiased information on the subject, UIC is staging a training session on high speed systems in 2015.



## Objectives

- Provide an accurate and comprehensive overview of high speed systems
- Provide managers with all the information needed to facilitate decision-making on the subject of high speed rail
- Foster exchanges of experience and information about the latest developments in the field
- Give a global vision of high speed rail to experts on some particular elements of the system

## Target groups

- Managers, strategy experts, decision-makers, economists, technicians
- The session is targeted at managers in decision-making positions in the transport sector in general, and in the railways in particular, whether working for railway companies or for ministries, local authorities, universities, advisory bodies, agencies or associations.

## Conditions for participation

- The seminar is targeted at persons interested in acquiring a comprehensive overview of the high speed system
- Seminar participants need not have in-depth knowledge of any specific subject relating to high speed systems
- Attendance at ALL sessions is therefore mandatory

## Speakers

- Our speakers are all experts in the subjects addressed and are drawn mainly from railways, universities and industry. They represent all the countries and world regions with experience in the field of high speed rail systems

# PROGRAMME

## Draft

### Chapter A – Introduction

- ▼ The conventional network - The potential of conventional lines - Tilt technology
- ▼ Introduction to high speed rail
- ▼ Round table discussion: Description of high speed systems that are operational, under construction or planned in Europe and in other parts of the world

### Chapter B – Infrastructure

- ▼ Technical and administrative process required to build a new high speed line (overview – can vary from country to country)
- ▼ Basic aspects, elements and parameters of the infrastructure of a new line
- ▼ Superstructure: track
- ▼ Superstructure: electrification
- ▼ Superstructure: signalling, protection and safety, telecommunications
- ▼ Round table discussion:  
Building a new line: contracting procedures relating to the country in question  
Building a new line: aspects relating to logistics, organisation and staging of works
- ▼ Approval of a new high speed line: maintenance and renewal, economic aspects of infrastructure, LCC, benchmarking

### Chapter C – Rolling stock

- ▼ Commercial requirements - Types of train technology
- ▼ Traction
- ▼ Industrial aspects
- ▼ The design of high speed trains
- ▼ Certification and approval of high speed rolling stock
- ▼ Organisation of maintenance and economic aspects of the upkeep of high speed rolling stock
- ▼ Sub-contracting of rolling stock maintenance - Example from Spain
- ▼ New technology: magnetic levitation

### Chapter D – Operations

- ▼ Basic operations principles for new high speed lines and high speed trains - The central control centre
- ▼ Operations with mixed traffic
- ▼ Environmental aspects of high speed rail - Aspects of Energy

### Chapter E – The market and customers

- ▼ Prospects for passenger traffic developments in Europe
- ▼ Traffic forecast studies - Modelling - Results  
Impact of a high speed project on mobility
- ▼ Case studies: experience with high speed rail in revenue service
- ▼ Conclusions

### Chapter F – Economic, financial, managerial and other aspects

- ▼ European policy
- ▼ Round table discussion:  
Funding methods and ways and means of designing a high speed project (conventional methods, with or without an agreement, concession, PPP, etc.)
- ▼ Economic and financial analysis of high speed projects
- ▼ Financing
- ▼ Legal aspects of high speed rail (at European level)
- ▼ Managerial aspects, staff management and training, Quality Label, image, communication, etc.
- ▼ High speed rail in the future - Research

## CONCLUSIONS

## Practical Information

### Dates and venues

Dates Lectures from 20–24 April 2015

Technical visit on 25 April 2015

Venue Paris (lectures), UIC Headquarters  
16, rue Jean Rey - 75015 Paris - FRANCE

Technical visit: destination, object and cost to be defined.

### Language

The training session will be held in English. However, other languages could be envisaged if enough participants of the same language are registered.

All the presentations will be available on the website of UIC/High Speed in real time during the training with an access code to the participants.

WIFI access will be also free to the participants during the session.

### Registration, fees and payments

The registration fee is **1 600 €**, taxes included. This fee comprises the training session, working materials, and lunches. **Travel to and from Paris, travel eventually necessary for technical visit and accommodation costs are not included.**

### Hotels

A list of hotels is enclosed (Appendix 3) setting out the appropriate contact details **for participants to make their own reservations.**

## For registration and any additional detail please contact:

### For the content of the programme

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