



**9th World Congress
on Railway
Research**
May 22 - 26, 2011

Meeting the challenges for future mobility

Press release

Paris, 9 May 2011

**SNCF is organising the 9th World Congress on Railway Research, WCCR,
from 22 to 26 Mai 2011 in Lille**

**An outstanding international meeting for the global railway community,
this congress will bring together scientists, manufacturers, railway undertakings and
research institutes from all over the world, all of whom are contributing
to the development and improvement
of rail transport to address the issue of future mobility.**

“Meeting the challenges for future mobility”

The French Railways (SNCF) are organising the 9th World Congress on Railway Research in close partnership with the Association of American Railroads (TTCI / AAR), DB Mobility Networks Logistics (Germany), the Railway Technical Research Institute (RTRI – Japan), the Rail Safety Standard Board (RSSB, UK), Trenitalia / FS (Italy) and the International Union of Railways (UIC).

Speakers from over 27 countries, including researchers, manufacturers and operators, will present their work, structured around **8 major unifying and innovative challenges**:

- ▶ A more and more energy efficient railway
- ▶ An environmentally-friendly railway
- ▶ Increasing freight capacity and services
- ▶ A world of services for passengers
- ▶ Bringing territories together at higher speeds
- ▶ Even more trains even more on time
- ▶ An even more competitive and cost effective railway
- ▶ For an even safer and more secure railway

Each day of the Congress will begin with a **plenary session** on one of the following three themes: *More services, more trains*; *Economics and Environment*, and *Meeting the challenges for future transportation needs*.

Research and innovations will then be presented over the course of **49 sessions**, structured around the 8 challenges, and spread over the three days.

The award for Best Challenge will be handed out at the end of the Congress on Wednesday 25 May 2011, along with awards for each category, the prize for the youngest researcher, and others. At the previous congress held in Seoul in 2008, SNCF carried away two of the eight awards for best communications.

Along with the work that has been carried out and which will be reported on at the Congress, certain topics will be presented in more detail.

- **Respecting the environment and ecomobility**

Rail transport has major objective advantages: it produces much less CO₂ than other modes of transport, and it is widening this lead in particular by identifying cleaner hybrid energy solutions and employing them appropriately, or by combating the noise pollution it generates.

On the question of saving and intelligently managing energy, the advantages of energy-efficient running and the technological advances linked to regenerative braking, energy storage on board trains and in electric substations will be presented.

The search for clean energy sources will be highlighted by the use of renewable energy, hybrid engines, or even fuel cells.

If noise sources are identified and understood, **noise reduction solutions** can be put forward (sound barriers, absorbers, reprofiling, etc).

- **New customer services**

Customers expect a global door-to-door service, practical and enjoyable journeys, and a more intelligent and personalised service.

Researchers are constantly working to provide **greater comfort**: improving the comfort of seats, the lighting and olfactory environment and ride comfort, and facilitating transport flow.

Thanks to CIT, **new systems have been developed**: “contact-less” use of smart phones to buy tickets, high speed broadband internet on board trains, geo-positioning, etc.

Transport for persons with reduced mobility is being improved via innovative systems for helping the visually impaired and boarding devices, among other things.

- **An efficient rail system**

Even more trains, even more on time, with an **optimised and preventive maintenance system for infrastructure and rolling stock**, including planning tools, maintenance scheduled when necessary, sensors to monitor the state of the track or trains in real time and innovations to minimise traffic disruption when carrying out track work.

If physical phenomena are better understood, solutions can be put forward that are more efficient and make fewer demands on infrastructure and rolling stock. It is particularly important to have a better knowledge of the pantograph/catenary interface, the wheel/rail contact, and how ballast is flung up.

Contribute to the preparation of railway standards: help to draw them up and think ahead to upgrade the rail system.

To register and see the detailed programme, visit: www.wcrr2011.org

Press contacts:

For the international press:

International Union of Railways (UIC): Liesbeth de Jong,: Tel. + 33 1 44 49 20 53, e-mail: dejong@uic.org

For France:

Le Public Système: Elodie Denis / Céline Da Silva Tel.: 01 41 34 21 18 / 01 41 34 23 83

E-mail: edenis@lepublicsysteme.fr / cdasilva@lepublicsysteme.fr

SNCF Innovation & Recherche: Marie CAUTY, Head of Communications, Tel.: 01 53 42 98 44,

E-mail: marie.cauty@sncf.fr

