UIC presents the “UIC Low Carbon Rail Transport Challenge” initiative during the UN Climate Change Summit in New York

(New York, 23 September 2014) The International Railway Association, UIC, representing 240 members on 6 continents, has presented on 23 September the UIC Low Carbon Rail Transport Challenge.

This initiative responds to the United Nations Secretary General’s call to bring bold pledges to the Climate Summit. This Summit, held on 23 September 2014 in New York brought together leaders from Government, private sector and civil society with the aim of catalysing climate action and raising political ambition for a meaningful global legal agreement by 2015.

Jean-Pierre Loubinoux, UIC Director General, recently appointed by the United Nations Secretary General as Member of the High-level Advisory Group on Sustainable Transport, presented this initiative. He said:

“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 by the International Energy Agency, UIC has set three targets; improve efficiency, decarbonise power and achieve a more sustainable balance of transport modes.”

These targets are designed to both catalyse action and highlight progress by the rail sector:

- To reduce specific final energy consumption from train operations by:
  - 50% reduction by 2030 (relative to a 1990 baseline)
  - 60% reduction by 2050 (relative to a 1990 baseline)

- To reduce specific average CO2 emissions from train operations by:
  - 50% reduction by 2030 (relative to a 1990 baseline)
  - 75% reduction by 2050 (relative to a 1990 baseline)

To achieve this, the global rail sector is taking action; developing electrification, improving load factors, procuring more efficient rolling stock, developing energy and traffic management systems and efficient driving.

Regenerative braking, returning breaking energy to the grid, is now state of the art. Advanced traffic control allows optimised train movements and speed profiles.

In the UK, a reduction of over 2000 K tonnes of carbon will be achieved in 10 years through the installation of Driver Advisory Systems on both diesel and electric trains.
Experience in Norway has shown reductions in energy consumption of up to 15% following the installations of energy meters on trains. Meters on trains are now compulsory in Germany. 25,000 energy meters will be installed on trains in Europe by 2020.

The electrified rail system is immediately compatible with renewable energy. The European rail sector has doubled its use of renewable electricity between 2005 and 2010, now accounting for 28% of all electric traction. There are entire rail networks in Scandinavia, Switzerland and Austria where the electricity used is almost entirely carbon free.

Rail companies choose to pay a premium price for electricity so that they can support investment in renewable energy. For example, the Dutch railway brokered a special deal so that from 2018 they will only use electricity supplied from new sources of renewable energy.

UIC is seeking to scale up this action through increasing rail’s market share at the expense of high carbon transport. The UIC initiative proposes a third target related to modal shift:

- **Rail share of passenger transport** (passenger/km) to achieve a:
  - 50% increase by 2030, relative to a 2010 baseline
  - 100% increase, a doubling by 2050, relative to a 2010 baseline
- **Rail share of freight land transport** (tonne/km) to be:
  - equal with road by 2030
  - and 50% greater than road by 2050

This challenge is designed to be ambitious but achievable in a green economy perspective; this means developing new patterns of growth rooted in a more sustainable balance between transport modes.

The rail sector has already made good progress; energy intensity has reduced by one third between 1990 and 2010.

UIC is seeking to building partnerships to support the right policy environment. Scaling up requires enabling actions and green investments by national governments and transport authorities.

This includes investment in high speed rail to reduce road and air traffic and new freight corridors to meet support economic development. It also requires important investment in existing assets; the removal of bottlenecks, modernisation of signalling systems, increasing of axial loads and loading gauges at strategic locations, promoting inter-modality for freight (eg by developing dry ports) and passenger traffic (better stations, and connections to wider public transport networks).

UIC calls for the internalisation of external costs so that transport users are presented with representative price signals. It is vital to harness private capital and innovation by providing the right environment for public private partnerships.
UIC welcomes the confirmed support received for this initiative from Governments, including the United Kingdom, the United Nations Framework Convention for Climate Change (UNFCCC), the International Energy Agency, and the private sector including UNIFE, Siemens, Bombardier and Alstom.

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