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*‘Rail may be green, but it must become more efficient, convenient, reliable and cost-effective, so that people want to use it’*

# Cleaner, greener and leaner

**T**he signing in Paris last month of a stronger and more wide-ranging multilateral agreement to tackle climate change opens up some significant opportunities for the world’s railways, while posing huge challenges for a multitude of stakeholders.

The agreement sets a goal of keeping global warming below 2°C, and preferably 1.5°C. It is a major step forward, but we note that amid all the references to Nationally Determined Contributions and Nationally Appropriate Mitigation Actions, there is not a single mention of transport, let alone rail.

The UN Framework Convention does require reductions in greenhouse gas emissions in the transport sector, and one of the priorities at COP21 was to try and ensure that the impact of transport was recognised more widely. At present the sector is estimated to account for 22% of global CO<sub>2</sub> emissions, and this figure is predicted to reach 33% by 2050. Pressure is growing on governments around the world to make better use of greener modes, including walking and cycling.

During the two-week summit a series of events focused on transport, starting with UIC’s Train to Paris campaign on November 28 and including daily debates hosted by local rail industry association Fer de France. December 6 saw more than 540 delegates gather at UIC headquarters for a Transport Day organised by the Partnership on Sustainable, Low-Carbon Transport. *Railway Gazette* was invited to participate in a panel on the contribution of rail in mitigating climate change, co-ordinated by suppliers’ association UNIFE.

While rail is by far the most environmentally-friendly form of surface transport, many of the world’s railways are not being used as effectively as they could be. There are many reasons, ranging from conservative attitudes, lack of investment and poor public perception through to an unbalanced societal framework which does not properly reflect the external costs of different modes. Reports suggest that subsidies and tax reliefs which encourage the use of fossil fuels total more than US\$10m a day, which is clearly counterproductive.

The biggest ‘quick win’ in reducing transport emissions could be achieved by encouraging modal shift for both passengers and freight. Rail must become more efficient, convenient, reliable and cost-effective, so that people want to use it, and that requires positive action to boost competitiveness. Yet as we report on p30, the debate in Europe so often gets bogged down in questions about liberalisation and interoperability.

During the Transport Day, there was a very clear disconnect between the priorities of the developed countries, which want to harness ever more advanced technology and protect

their established industries, and emerging countries that are struggling to provide any form of mass transport to support their growing economies, let alone in a sustainable way.

Shewangizaw Kifle from Ethiopian Railway Corp highlighted his country’s commitment to develop a 5000 km electrified rail network, while former Indian Railways Board Member Shri Prakash explained how investment and modernisation would support a doubling of IR’s market share in the coming years (RG 10.15 p68). Costa Rica’s Environment Minister Dr Edgar Gutiérrez Espeleta told *Railway Gazette* he was keen to find a way to replace the electrified railway his predecessors had unwisely closed in the 1990s.

Amid the clamour for funding to develop electric road vehicles — such as a proposal that Netherlands should buy 3 million electric cars by 2020 — it is important to remember that rail has been providing ‘e-mobility’ from renewable resources since 1883. But as other modes are steadily improving their environmental credentials, the rail sector must not rest on its laurels. It was heartening that many railways signed up to a UIC sustainability charter during Train to Paris, and pledged to continue reducing their environmental footprint. As Alstom’s Barry Howe pointed out, there are technologies available today which need to be more widely adopted, and that requires investment as well as commitment.

Policymakers must find ways to provide sufficient rail capacity to meet future demand, including greater use of renewable energy sources. That need not rely on public funding, of course — we know an efficient and competitive rail market can attract private investment where the conditions are right.

Funding is clearly a challenge for emerging countries, although investment in greener rail technologies could help to support sustainable economic development. However, UITP’s Gunnar Heipp pointed out the need to recognise that a substantial modal shift to public transport is likely to result in an increase in the absolute value of carbon emissions, which would be more than offset by reductions elsewhere.

A clear message from Paris is that there needs to be much more cross-modal thinking, with a focus on integration to make public transport easier to use, multimodal ticketing, better real-time information and door-to-door journey planning for both passengers and freight. While there are many steps that the rail sector can take by itself, the process could be made easier by a supportive policy framework and a more level playing field where all modes pay fairly for their externalities, including carbon emissions. Carrots alone will not be enough. If we are to see real progress, it may be time for a big stick. ■

## 540 delegates

AT THE COP21  
TRANSPORT DAY  
ON DECEMBER 6  
TO DISCUSS  
SUSTAINABLE  
LOW-CARBON  
TRANSPORT  
INITIATIVES