

EUROPE

Rail freight corridors
DG Move explains
evolving strategy

PAGE 48



FARE COLLECTION

Beyond the smart card
Open payments support
multiple media

PAGE 57



Railway Gazette

INTERNATIONAL

Train control: the global race



SIEMENS

as Germany, Italy or the UK, which Grillo Pasquarelli says is enabling NTV to compete on the Roma – Milano high speed line, and ‘four big incumbents want to compete for UK franchises.

‘Some of these member states want to see reciprocity in order to get into France, because Keolis and Veolia can compete in their markets’, he notes. ‘But reciprocity is a forbidden word in European law — it means discrimination. We can accept a country being closed to all, but if it is open, it must be open to all. That is the principle of equal treatment.’

Grillo Pasquarelli is fairly relaxed about the prospect of further consolidation in the number of operators, both passenger and freight. This could bring ‘optimisation and greater efficiency’, he suggests, but ‘we will need to keep an eye on the rules about competition’. Under the current rules, he says, ‘a dominant position is acceptable, but not the abuse of that dominant position.’ ❏

Innovation celebrated

EUROPE: Around 500 senior railway executives, politicians and suppliers, including European Commission Vice-President for Transport Siim Kallas, gathered in Brussels on February 9 for the fifth annual European Railway Awards, organised by CER, EIM and UNIFE.

The 2011 Political Award was presented to the former Mayor of London Ken Livingstone in recognition of his decision to implement the London Congestion Charge in 2003, cited as an ‘example of how to improve the sustainability of transport’, reducing car traffic and raising funds for public transport investment.

The Technical Award was presented to Dr Stefan Haas of Knorr-Bremse Austria for his work on developing and introducing the linear eddy-current brake. UNIFE Chairman Hans-Jörg Grundmann said the eddy-current brake fitted to DB’s ICE3 fleet had ‘become a successful, reliable and cost-efficient product that has exceeded all expectations by far’, thanks to excellent cooperation between the train operator, systems integrator and brake supplier. ❏



Ken Livingstone (centre), Stefan Haas (right) and Siim Kallas (fourth from right) join CER, EIM and UNIFE executives at the awards ceremony.

SAFE in the tunnel

EUROPE Eurotunnel has completed the first of four fire-fighting points designed to suppress fires on lorry shuttles. Richard Hope reports from inside the Channel Tunnel.

An unusual media event took place on February 1, when journalists and TV crews were taken 18 km into the Channel Tunnel to inspect the prototype *Stations d’Attaque du Feu* fire suppression station in Interval 3 of the south running tunnel (the central section between the two cross-over points).

Eurotunnel Chairman & Chief Executive Jacques Gounon explained that SAFE is the key element of Project Salamander launched after the fire on a lorry shuttle in 2008, which followed a similar event in 1996. Other measures aimed at preventing fires starting include a team of 24 Platform Safety Controllers armed with hot-spot detectors who inspect every lorry before a shuttle departs.

The fire suppression stations are being installed mainly to tackle lorry fires on shuttles which have twice caused serious damage to the concrete tunnel lining as the air temperature reached 1000°C. Fire crews tackling the 2008 fire could not prevent all 30 lorries on the shuttle from being burnt out because most of the water aimed at the fire ran off onto the track.

SAFE relies on smaller quantities of water delivered at high pressure through nozzles high on both sides of the tunnel lining that produce a mist of micro-droplets. These quickly turn into steam in a fire, and should reduce the air temperature from 900°C to below 250°C in less than 3 min.

Thus 1 litre of water produces 1.65 m³ of steam which displaces air and the oxygen needed to support combustion. Yet the same mist can be breathed in without harm.

After successful trials in Spain, the prototype SAFE station was tested in November 2010 and approved. Eurotunnel has now committed to constructing this year two pairs of SAFE

stations close to the ends of the Intervals 3 and 4 at a total cost of €20m.

The equipment is being supplied by Fogtec of Germany, whose Managing Director Dirk Sprakel said ‘it really is new technology’. Although this is the first Fogtec application in a rail tunnel, the water-based fire suppression system has been supplied for passenger saloons and equipment compartments on rail vehicles including Stadler EMUs for Swiss Federal Railways, Bombardier locomotives for New Jersey Transit and Alstom’s AGV high-speed demonstrator train.



The 870 m long SAFE station has almost 900 mist nozzles spaced 2 m apart on each side of the train.

Each SAFE station will be 870 m long, sufficient to provide a margin of error when a 800 m lorry shuttle train is brought to a stop. Heat detectors in the tunnel roof automatically open the mist nozzles within one or more of 29 sections. These are 30 m long with 15 nozzles on either side of the train.

The most costly part of the SAFE programme is the excavation of four equipment rooms, each housing two 250 kW motors driving a high-pressure pump. Located between the service tunnel and the running tunnels, the rooms are similar in size to the cross-passages used for evacuation.

The SAFE stations can draw water from any of the four pumps, but normally three would be sufficient, depending on the number of 30 m sections activated by the heat sensors. ❏