

BUILDING AN ENVIR



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Transport's contribution to global warming needs to be squarely blamed on road and air, in the public mind, if rail is to continue to gain environmental Brownie points.

Atoc is proclaiming the railway's commitment to going green. But as other transport sectors tune in to the zeitgeist more effectively, Paul Clifton questions whether rail is shouting about its environmental credentials loudly enough

'Rail is one of the greenest forms of mechanised transport,' claims the Association of Train Operating Companies. It states that rail has reduced its average emissions per passenger kilometre by 22 per cent over the past 10 years.

New trains have helped. But it's largely down to the same trains carrying more people – measure the emissions in absolute terms and the gains are rather smaller. Just as some supermarkets were slow to see the marketing potential in organic food, rail was behind other modes of transport in jumping on the environmental bandwagon. The wheels of change in this industry still grind slowly. For a long time the railway industry was content with the basic perception that of course it had to be more environmentally friendly than all those cars sitting in traffic jams. Behind the scenes, much positive work was being done to reduce

fuel consumption in the new generation of diesel engines. But the leaps forward by other forms of transport have been far greater. And their supporters have made much more noise about them.

Take cars. A brand new Ford Mondeo produces a 10th of the emissions of a 20-year-old, smaller Ford Fiesta. It does more miles to the gallon, and the majority of the materials used to make it can be recycled when the car is scrapped.

Take cruise ships. According to Dr Simon Boxall of the University of Southampton, Cunard's Queen Mary 2 produces half the carbon footprint per passenger of P&O Cruises' *Oriana*, despite the smaller ship only being built in 1995. *Oriana*, in turn, has only half the emissions of her predecessor bearing the same name. Even aviation is cleaning up its act. Dr Boxall says the carbon footprint of a passenger flying from the UK to New York on board a new Boeing 747-400 is about the same as that of a passenger on Queen Mary 2.

Virgin Atlantic has announced an order for 15 Boeing 787 Dreamliners. The news release announcing the deal did not headline the greater levels of passenger comfort, the quieter cabins or the lower fares. Instead it trumpeted the 27 per cent fuel saving per passenger on a transatlantic flight compared with the Airbus planes they will replace. The comment from Sir Richard Branson was that 'Virgin Atlantic is totally focused on delivering a cleaner airline.'

He also announced a trial of biofuel with his aircraft: the first in

ENVIRONMENTAL CASE

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the world. Biodiesel is also being tested in the rail industry, and again it is likely to be Virgin that runs the fuel first in passenger traffic. At present the work is restricted to the test-bed, but Virgin Trains' spokesman Dave Ewart says he expects the first train to be running in a matter of weeks. The Voyager will be fuelled at Central Rivers depot and put into general service. The testing is being done by mi Technology under the auspices of Atoc. As with biofuel in cars, it's using a blend of 95 per cent diesel and five per cent biofuel. But it's also expected to experiment with higher quantities of biofuel – up to 20 per cent – to assess whether a higher threshold may be possible without adding to engine wear or compromising performance.

The fuel comes from Greenergy, the leading biofuel producer in Britain. This year it is taking around 10 per cent of the UK's rapeseed crop – the output of 1,200 farms. The figure has more than doubled in a year, and Greenergy has developed a new production facility in Immingham. Although biodiesel can be made from a range of vegetables and even from rendered animal fat, rapeseed gives the highest quality fuel. Even with government tax breaks, it still costs vastly more to produce than conventional diesel.

Further tests on other rolling stock will follow. South West Trains will experiment with its Salisbury-based Class 159 fleet, and First Great Western hopes to do the same with its 165s in Reading. Eurostar, which has always competed head-on with airlines, spotted the marketing advantages of its environmental benefits early on. Already a pacesetter for the industry in this area, last month it promised to cut carbon dioxide emissions by 25 per cent by 2012. It already claims to be 10 times more carbon-efficient than airlines, helped by supplies of French electricity from carbon-free nuclear power.

It's convinced this will persuade more people to switch from flying. The number of business passengers rose by 14 per cent in the first quarter of the year, compared with the previous year. Eurostar will fit new controls for lighting, heating and air conditioning to reduce energy use, and make peripheral carbon savings by increasing e-ticketing and using more recycled paper.

The Rail Safety & Standards board calculates that the whole industry could match Eurostar's 25 per cent target by using resources more efficiently. On the roads, the AA estimates that an average driver could use between five and 10 per cent less fuel by being more gentle with the right foot without affecting journey time, assuming speed limits are adhered to. Could the same be possible for train drivers?

Friends of the Earth calculated that if all passengers currently flying between London, Paris and Brussels went by rail, it would cut carbon dioxide emissions by 200,000 tonnes a year – more than the total annual emissions from every house in Oxford. Only three per cent of diesel consumed in the UK is attributable to rail. And less than

three per cent of UK carbon emissions come from rail. Zooming out to the bigger picture, the UK contributes less than one per cent of global carbon emissions.

The issue of emissions is not totally ignored outside Europe, but as a target for political action it is way down priority list. Curbing aviation emissions may be high up the environmental agenda in the EU, but in most of the rest of the world the opposite view prevails. Building more airports to encourage more trade is seen as more important. The aviation industry defends its record by claiming responsibility for only two to three per cent of global warming gases. Globally aviation claims one 12th of the emissions of either motor transport or power generation or domestic energy consumption.

Here, such statistics are unlikely to wash with the public. The image is set. Here's how the Association of European Airlines puts it: 'For us, the issue is how green you can become before the balance sheet turns red?'

With 'carbon footprint' as the biggest buzzword of the year, perhaps it's a mantra the railways could consider adopting with a twist: how much money can be made from being seen to go green?

Paul Clifton is transport correspondent for BBC South.

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