

GREENGAUGE 21

29th April 2009

Demonstrating High-Speed Rail's Carbon Credentials

Greengauge 21 today publishes research which shows that high-speed rail has a central role to play in reducing carbon emissions from the transport sector.

Anticipating progressive improvement in energy efficiency and reduced carbon emissions from the rail, aviation and automotive sectors, the work, which was carried out by ATOC, the Association of Train Operating Companies, shows that high-speed rail could offer a huge saving in carbon compared with air travel and result in 70% less carbon per passenger-km than would be produced from a totally modernised electric car fleet. Against a mixed car fleet, in transition away from petrol/diesel engines, the advantages would be even more dramatic: HSR would produce 30 times less carbon per passenger-km.

“The basic point is this:”, said Greengauge 21 Director Jim Steer, “to achieve lower carbon in the transport sector, we need to provide a better alternative to flying or driving medium/long distances in Britain. High-speed rail offers the transformation needed to make this possible”. Greengauge 21 believes that this will come to be seen as a seminal piece of work on the subject, establishing firmly that high-speed rail has a central role to play in de-carbonising the transport sector.

“The skill of railway engineers can ensure that we have a highly efficient low-carbon national transport network in the century ahead”, said Jim Steer. As the research points out, while the laws of physics are inescapable, the energy consumed in overcoming air resistance at higher speed is in effect shared across all passengers on a train, a key advantage over individual vehicles on the road network. “High-speed rail has the advantage of being able to accommodate in comfort many more passengers in each train than can be achieved under the constraints of today’s rail network. And rolling stock designers in Japan and France are achieving *reduced* levels of carbon emissions at the same time as they progressively increase top speeds from 260 km/h to 360 km/h”, Jim Steer added.

“It will take at least ten years to get the next stage of high-speed rail up and running in Britain, but this fits well with the timescale over which the electricity supply industry will be de-carbonising”, Jim Steer said.

Michael Roberts, Chief Executive of ATOC commented, “This report shows that, even taking into account future improvements in the carbon performance of other modes, high speed rail has the potential to widen its advantage over air and car travel. It underlines the positive contribution which the railways can make towards achieving the Government’s 2050 goal to cut UK carbon emissions by 80%.”

The research was carried out for Greengauge 21 by ATOC as part of a year-long development programme funded by a broadly-based Public Interest Group established last year. It is available, free of charge, for download from the Greengauge 21 web-site: www.greengauge21.net/hsr-development-programme.html.

Notes to Editors

1. Greengauge 21 is a company limited by guarantee established to promote the case for high-speed rail and foster debate. It has an Advisory Panel comprising: Chris Green (Chair), Richard Brown CBE, Richard Bowker CBE, Lord Faulkner and Professor Sir Peter Hall. Greengauge 21 Directors are Jim Steer and Julie Mills.
2. ATOC, the Association of Train Operating Companies drew heavily on independent research carried out for the aviation and automotive sectors, together with its own work on rail to assemble comparable statistics for this exercise.
3. Greengauge 21 has underway a £0.75m High Speed Rail Development Programme to develop a network strategy for Great Britain. It will consider the potential role of high speed rail in Britain and address the key questions:
 - What kind of HSR network should be developed, which destinations should it serve, how should it be developed?
 - What would such a network cost and what benefits will it bring, including at city and regional levels?
 - What would be the carbon/energy impacts?
 - What are the financial implications for the public sector and how can private sector skills, resources and finance be best used?
4. A powerful Public Interest Group has been formed that is funding this work comprising:

Advantage West Midlands (leading for EEDA, EMDA, SEEDA and SWRDA)
Association of Train Operating Companies (ATOC)
BAA
Birmingham City Council
Channel Tunnel Initiative (<i>associate members</i>)
City of London Corporation
The City of Edinburgh Council
Glasgow City Council
Greater Manchester Passenger Transport Executive
Network Rail
Newcastle City Council
North East Assembly
The Northern Way (the partnership of the three northern RDAs)
Passenger Transport Executive Group (covers all six PTEs)
Railway Industry Association

South East of Scotland Transport Partnership (SEStran)
Strathclyde Partnership for Transport
Sheffield City Region
Transport for London

5. The consultants appointed to deliver the work programme following a competitive tendering process are:

Principal Consultant	SYSTRA with MVA Consultancy
Consultation Adviser	Bircham Dyson Bell
Funding Adviser	PricewaterhouseCoopers

In addition, Denton Wilde Sapte is acting as legal adviser to Greengauge 21.

Contact

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