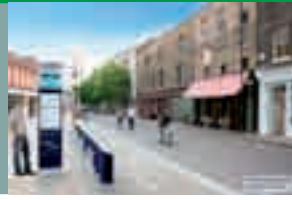




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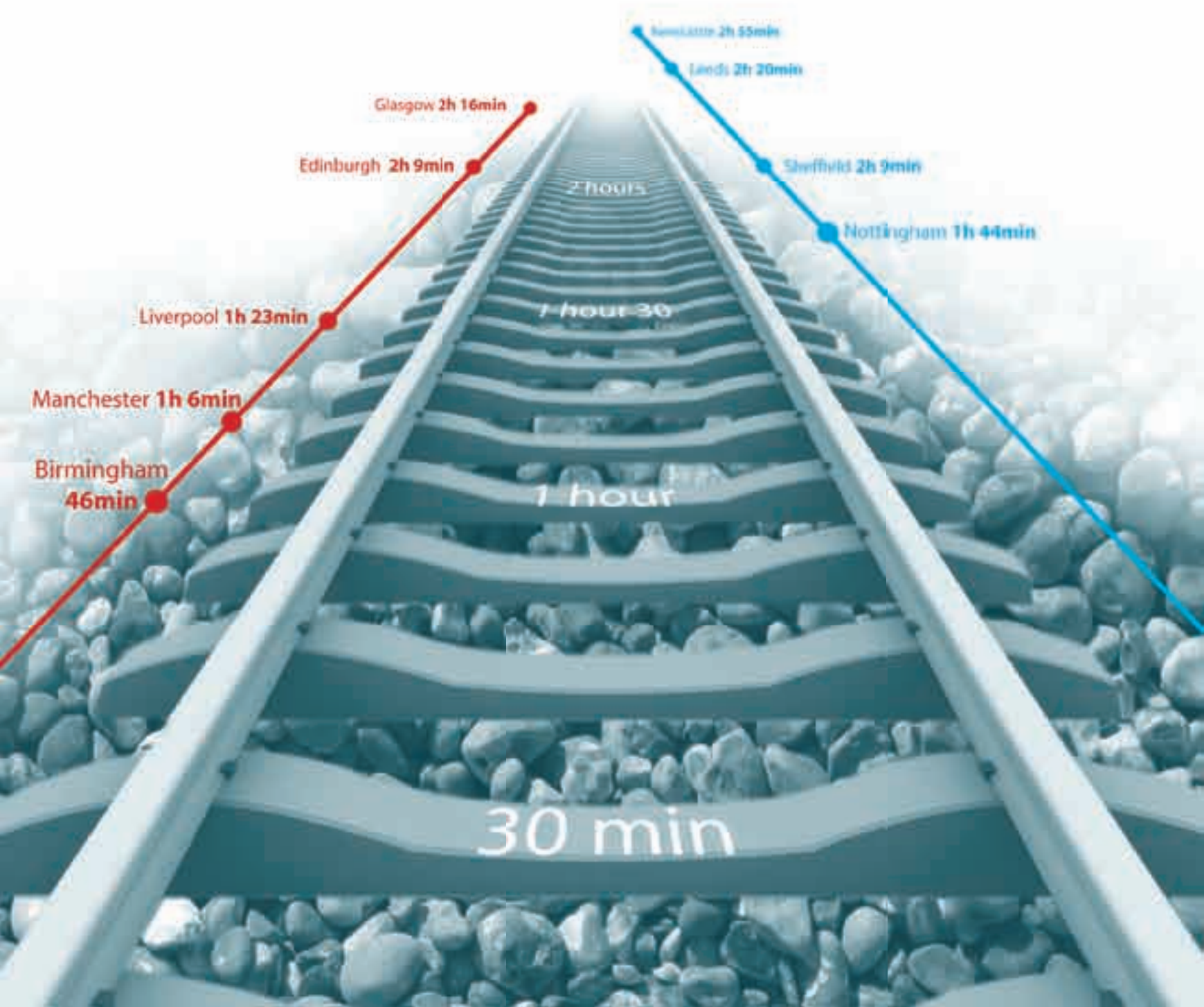
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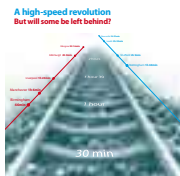
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Portrait photography:  
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Transport Times is published monthly and provides news, information, analysis and comment on surface transport.

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Printed by Stones, Unit 10, Acre Estate, Wildmere Road, Banbury, Oxon OX16 3ES

ISSN 1759-1015

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# High speed rail plans must take account of the wider picture

**W**hat's your view on High Speed Rail (HSR)? Do you think it's an unnecessary grandiose project at a time when the transport sector will be counting every penny and struggling to continue providing bread and butter services, or do you think it's critical that we plan long-term to address our transport challenges?

I am in the latter camp. I know that funding will be very tight for the next decade and that continuing to run the railway we have now will be a challenge. I know we have to avoid the mistake the Italians have made by focusing too much on HSR to the detriment of their conventional railway.

However, the British transport disease has been our failure to think and act long-term. We live on a small, densely-populated island which is the most car-dependent in Europe and too dependent on domestic aviation. We have to maximise the use of the mode of transport which is the most efficient user of land space and potentially one of the most environmentally-friendly. We need a 30-year rail strategy and high speed rail is critical to it.

What's the alternative? We know that we will run out of capacity in the medium to longer term and that neither longer trains and platforms or new signalling systems will be sufficient to address the problem. Network Rail's new lines study shows that the best we can hope for from new signalling is one extra train path per day on the West Coast main line into Euston – hence its conclusion that we need to build new lines.

We could build conventional lines to plug the capacity gap but the business case is less attractive than for HSR because you don't achieve the same modal switch. So HSR is not just desirable in that it shrinks journey times between our cities but is essential as a long-term response to our capacity problems. We would be the laughing stock of Europe if we were to plan a railway for the mid-2020s to run at 200km/h rather than 400km/h.

Network Rail got the ball rolling



**I am persuaded that there is a case for two north-south routes**

this month with its proposals for a west coast HSR line from London to Scotland via Birmingham and Manchester with a spur to Liverpool. It received a positive welcome from the national press, albeit with some justified scepticism on how it was going to be paid for. The regional press was more mixed, depending on whether you live on the west coast or east coast.

John Humphrys's first comment to Network Rail chief executive Iain Coucher on the *Today* programme was: "This is bad news for Leeds and Newcastle". The *Newcastle Journal's* front page headline screamed out "We built the railways – now they are bypassing us".

I felt sympathy for Network Rail. While there is huge support for HSR, the geography and phasing of the route was always going to be contentious. Network Rail's response was to say that it will look into the business case for an east coast route, but you can't help drawing the conclusion that it was an afterthought that highlighted a lack of political acumen.

The cities that perceive themselves as being marginalised have a legitimate grievance. Leeds has to be concerned at the competitive disadvantage it will face if Manchester has a journey time to London of

just over one hour and that to Leeds is twice as long. Newcastle faces the prospect of a longer journey time to London than Edinburgh or Glasgow to the capital. This will redraw the connectivity map of the UK and have sizeable redistribution effects.

I am persuaded that there is a case for two north-south routes – and that eventually the Great Western main line will experience sufficient overcrowding to warrant a new route from west to east. Yes, it will all have to be phased in over a time period which will mean most of us will not see it fully realised in our lifetimes. We are crying out for a national HSR strategy with clear criteria on what we expect to achieve from this hefty investment.

While Network Rail should have been astute enough to ward off the criticism its report received from the cities on the east coast and East Midlands, it was only answering the question that the then Transport Secretary Ruth Kelly asked it to report on: how do we deal with the longer-term capacity constraints on the rail network? Faster growth is projected on the existing west coast route than its east coast rival, hence the more attractive business case.

However, while capacity issues must remain a key driver for prioritising HSR routes, we must also build in wider criteria covering regeneration, agglomeration benefits and environmental gain. We need a visionary HSR route map for the UK which chimes with not just the wider transport agenda but with the country's future economic goals.

Our population is growing faster than we had anticipated and with it comes huge pressure on infrastructure. The demand for new housing is growing like Topsy and HSR must be integrated with housing and economic growth areas such as Milton Keynes and the M11 corridor around Cambridge. This reinforces the case for two lines north of London.

What's clear is that a project of this financial scale cannot be funded out of DfT's budget. It will not happen if it deprives other critical transport

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# High speed network could transform regional economy

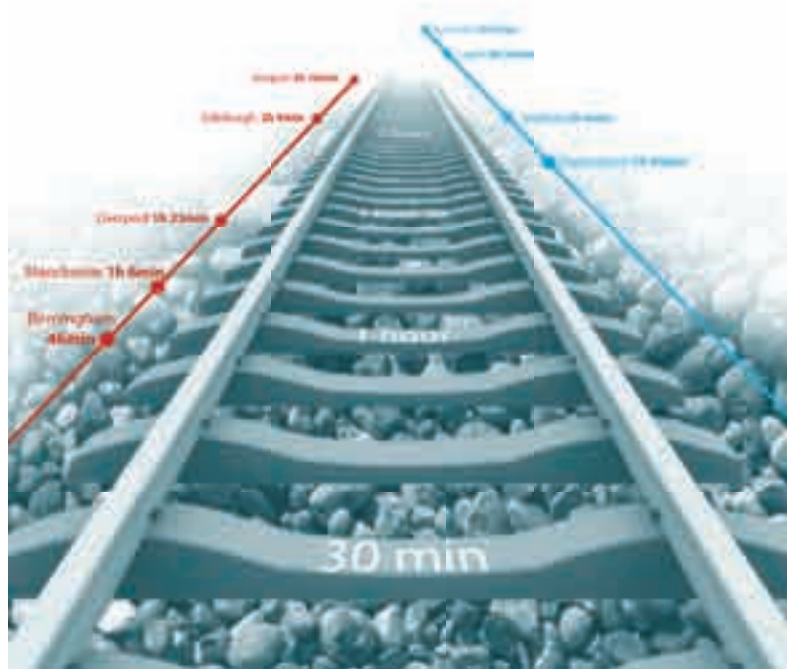
A high speed rail network could have “a completely different dynamic” from the current railway, according to High Speed 2, the company set up to make proposals for a network to the Government.

Journey patterns could be significantly different, characterised by strong inter-regional flows, in contrast to today’s London-centric system.

The revelation comes as debate over a high speed rail network intensified, with the publication of Network Rail’s new lines study two weeks ago which proposed a west coast route, costing up to £30bn, to Edinburgh and Glasgow.

Network Rail promised a later study would look at connections to cities on the east of England. Lobby group Greengauge 21 and the Northern Way Transport Compact will both unveil proposals next week, and at the end of this month High Speed 2, the company established by the Government to make proposals on a high-speed line to Birmingham, will focus on a single option for detailed development from its shortlist of possible routes.

High Speed 2 believes its comprehensive evaluation has netted all proposed or feasible routes. This includes the proposal by the 2M group of councils around Heathrow for an alignment which follows the southerly end of the M1 and could serve cities on both sides of the country. HS2 is due to report to the Transport Secretary by the end of the year.



In an interview with *Transport Times* High Speed 2 chairman Sir David Rowlands and chief engineer Prof Andrew McNaughton revealed they plan to produce “a complete guide to building a high speed network”. Detailed proposals as far as Birmingham will be combined with sufficiently robust indications on the costs and benefits of further extensions to allow ministers to plan and assemble a network connecting all the major city-regions “like a box of Meccano”.

HS2 strongly suggested that the imperative for a network to meet 21st

century travel patterns would be to connect major centres of population. Sir David said: “Work we’re doing at the moment is showing the potential for strong inter-regional flows, such as between Birmingham and Manchester, where rail currently has only 4% of the market.”

High speed rail has the potential “to allow the city-regions to come together as a single economic entity. When they’re within an hour of each other there will be a different dynamic from a London-centric system.”

High Speed 2 has also modified its

Work we’re doing at the moment is showing the potential for strong inter-regional flows, such as between Birmingham and Manchester, where rail currently has only 4% of the market

– Sir David Rowlands

initial suggestion that it favoured a four-track route to the West Midlands in order to “future-proof” capacity, hinting strongly that it may favour separate east and west coast lines. Prof McNaughton said: “If you need more than two tracks why build them 3m away rather than using them to connect other cities?” He added that two separate lines would probably be a cheaper option because of the cumulative environmental impact of a four-track railway.

Network Rail study, overleaf Interview, page 23

## High speed rail plans must take account of the wider picture

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projects of funding. All the evidence from the continent is that for HSR to be successful we need effective city-region transport systems to disperse the passengers from the city centre hubs. This means that Transport for London’s plans to modernise the tube and build Crossrail, or the numerous public transport projects waiting for funding in other cities, cannot be sacrificed for the sake of HSR.

The logistical challenge of dispersing 15,000 extra passengers hourly from an HSR terminal in London is considerable. We need a debate on whether we need two lines and two termini or one four-track line and one terminal.

This has to be a national infrastructure project which competes for funding from a central pot. For it to succeed it must not be seen as just a transport project, but a project which is important to the national economy and carbon reduction strategy.

Greengauge 21 will publish its proposals on HSR next week. Jim Steer and Julie Mills have impressed with their knowledge and commitment to HSR. They were standing their ground when its prospects were being rubbished. Their report deserves to be taken seriously.

Likewise I will be involved in announcing the Northern Way’s proposals for HSR at the same time and, while there will be little disagreement that London to Manchester must come first, we will publish a

robust evidence-based case for HSR to our East Coast cities.

David Begg

David Begg is Chairman of the Northern Way Transport Compact and a member of the Governments External challenge group on HS2. He writes here in a personal capacity.

# Network Rail calls for west coast high speed route

A high speed rail line connecting London with Glasgow and Edinburgh via Manchester and Birmingham would pay for itself 1.8 times over 60 years, according to a new study by Network Rail.

There would be wider economic benefits of £3bn-6bn and a cut in carbon dioxide emissions of 300,000 tonnes annually due to the reduction in car and air travel.

But Network Rail was unable to find a business case for a line running only as far as Birmingham and Manchester.

The new lines study into the need for new capacity on the network was commissioned by then Transport Secretary Ruth Kelly last year.

Passenger numbers are expected to double over 30 years and the study found that the West Coast main line would be the first to reach capacity by 2020.

However, by dealing only with the west coast the plans caused consternation in the East Midlands, Yorkshire and the North East. Journey times to Leeds would be greater than to Glasgow or Edinburgh.

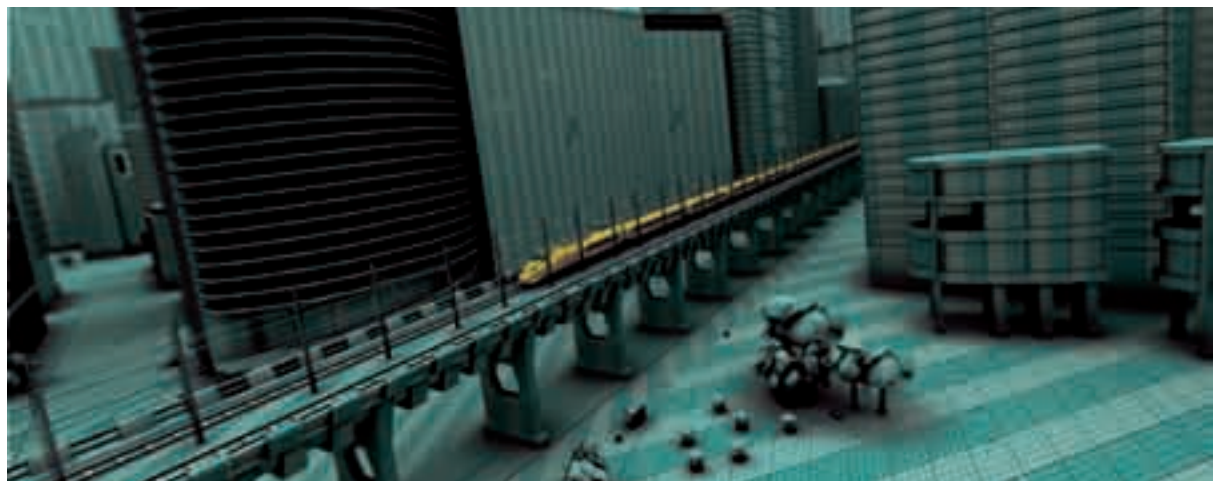
Network Rail chief executive Iain Coucher said that a further study would report on east coast destinations in December.

Mr Coucher said Network Rail's study, which began before High Speed 2 was set up, did not pre-empt or duplicate the latter's work. "High Speed 2 is looking at the south end of the west coast line where there's an acute problem. We've produced a document to inform debate."

The study initially looked at options for a route from London to Manchester with a diverging route to Birmingham, allowing direct trains between all three centres. However, the business case did not stack up, with costs outweighing benefits and only around half the line's capacity being used.

Options for extending the line further north to Liverpool, Glasgow, Edinburgh, and Preston and Warrington – the last two because they serve large catchment areas – were then examined.

The idea of continuing across the Pennines to Leeds was discarded on the grounds of its large incremental



Scenes from the animation produced by Network Rail to illustrate its proposals

costs and the fact that journey times would not be sufficiently improved over today's, by comparison with a new east coast line.

The option with the best business case was a dedicated high speed line as far as Preston, with trains then running on the conventional line. But Network Rail's preferred option had a slightly lower benefit-cost ratio but added greater value: a high speed line to Glasgow with a diverging route to Edinburgh. This would allow a complete recasting of the West Coast main line timetable, with benefits to intermediate destinations and freight services.

Serving Heathrow was predicted to attract an extra million passenger annually. A spur to Heathrow was considered a better solution than putting Heathrow on the main line, on the grounds that this would add 15

minutes to the journey time and because considerable tunnelling would be needed.

Network Rail proposes creating an "efficient interchange" with High Speed 1 by developing the area between Euston and St Pancras into "an airport-like complex with good connections". This would attract an extra half million passengers.

Physically connecting the new line to High Speed 1 would add a further 0.3 million passengers but at a significant cost.

Overall cost of construction plus project management was estimated at £20.5bn, or a total of £34bn when optimism bias is added.

The report was welcomed by the three main Westminster parties as well as the Scottish Government.

However, South Yorkshire PTE director-general David Brown said:

"The announcement proposes that Network Rail backs building a new high speed line from London to Scotland is to be welcomed. A high speed line to the north of England is essential to unlock the potential of its cities and their economies. But such a line must benefit all the northern cities, including those in Yorkshire."

Last month a report by consultancy Arup, commissioned by South Yorkshire PTE and Metro (West Yorkshire PTE), put the long-term benefits to business of a high-speed rail link serving the Sheffield and Leeds city regions as high as £3bn.

Leeds City Council co-leader and chairman of the Leeds City Region Board, Cllr Andrew Carter, said: "It is vital that ministers and the Department for Transport plan a whole network that taps into the potential of all our northern cities."



# Bus pass funding crisis 'a year away' warn councils

**M**inisters have a year to resolve the funding of concessionary bus fares if councils are not to face "irreparable harm".

Councils in Essex have come together to warn that a multi-million pound funding gap is opening up. They warned that cuts in services or rises in council tax will be on the cards next year if nothing is done.

Essex County Council stepped in earlier this year to fund a £1.3m deficit in the county, which provides free bus travel for the over-60s and the disabled, but districts have already taken the strain of millions of pounds in under-funding, the councils say.

Projections show the deficit will rise to £6m in the next financial year, £8m in 2011/12 and will

continue to rise by at least £1m in subsequent years.

The councils urged the government to speed up a review of the funding formula so that the costs of the scheme are met in full.

The DfT insists that overall funding for the scheme across the UK is sufficient and any adjustment to the funding formula will result in winners and losers.

Essex County Council cabinet member for highways and transportation, Cllr Norman Hume, said: "While we all support the aims of the scheme, we are on alert with a growing black hole appearing in our finances because the Government is following a funding formula which is 25 years out of date. Unless ministers wake up now and listen to what nearly all the local councils in

the country are telling them about shortfalls there is the real danger that other services will suffer and council tax bills will rise."

Cllr Pam Challis, chairman of the Essex leaders group and leader of Castle Point borough council, said: "Councils like mine are going to be suffering irreparable harm if this hugely popular initiative isn't funded properly and as it was intended, by the government, in coming years."

Meanwhile the Association of Transport Co-ordinating Officers has called for concessionary fares to be administered nationally in its response to the government's consultation on possible changes to the scheme's administration.

ATCO believes that national reimbursement through a central agency

would significantly reduce the estimated £16m cost of administering the scheme. This is currently the responsibility of district councils.

It would reduce the time spent by bus operators in dealing with a large number of local authorities and remove a source of friction between local councils and bus operators, making it easier for them to work towards improved partnership arrangements envisaged in the Local Transport Act 2008.

This need not make local discretionary concessions more difficult to manage, it suggests, instead allowing a more consistent approach to what are currently discretionary concessions.

ATCO says that processing of applications and issuing of passes should still be carried out locally.

## Government backs paperless tickets

**W**idespread adoption of smart ticketing could bring benefits of up to £2.6bn to the economy, with advantages for passengers, transport operators and local authorities alike, says a new government consultation document.

*Developing a strategy for smart and integrated ticketing* sets out the government's aim of encouraging paperless ticketing, whether by smartcards, mobile phone or contactless payment bank cards.

Passengers would benefit from reducing queueing for tickets and faster boarding of buses.

Operators would gain from speeded up boarding times – bus "dwell times" at stops could be reduced by 50% if the technology were taken up fully, research by the department indicates – as well as reducing fraud and removing cash from the system.

There would also be benefits of better data, allowing a better use of resources and a better understand-

ing of customers.

"Local integration is key to our vision, with city-wide, possibly regional multi-modal smart ticketing schemes supporting integrated transport networks," says the document. Smart and integrated ticketing is seen as a way of encouraging modal shift by making public transport more attractive and easier to use.

Examples include London's Oyster and Nottingham Citycard, issued by the city council, which can be used on buses, in libraries and in leisure centres.

The strategy distinguishes between smart ticketing – where tickets are stored electronically on a microchip in a smartcard or phone – and integrated ticketing, in which tickets are valid on more than one operator's services. Both these can exist separately.

"When combined to offer integrated smart ticketing the benefits can significantly increase," says the document.

The document asks why, if the

benefits of smart and integrated tickets are so compelling, is it not already widespread?

Answering its own question, it argues that smart ticketing has been held up because of the uncertainty associated with new technology, and the fact that there is a considerable cost outlay before the benefits are gained, and the need for co-operation between parties.

Integrated tickets are not widespread because "their creation requires commercial co-operation between transport operators who must also compete." They need convincing that the gains will outweigh the commercial risks.

The government strategy is to set out a clear vision of future ticketing and support ITSO in continuing to develop a national specification which adapts to accommodate future developments. It should address market failure in providing smart ticketing infrastructure by providing incentives to bus operators.

Examples include existing plans to reform bus service operator grant to incorporate a smartcard incentive, and including smart ticketing requirements in future rail franchises. It is also working with Transport for London to make the Oyster infrastructure compatible with ITSO.

The department seeks views on what other barriers exist and what more is needed – such as national framework agreements for smart ticketing infrastructure and evaluation of whether a national pre-pay ticket is desirable.

Jonathan Bray, director of the Passenger Transport Executive Group, said: "We fully share the Government's ambition to see smart ticketing introduced across Britain's largest urban areas as soon as possible."

Stephen Joseph, executive director of the Campaign for Better Transport, called for a firm commitment that smart ticketing would allow door-to-door ticketing on all operators across the UK.

# Bus competition probe 'could be worse than the disease'

**T**he Office of Fair Trading's proposal to refer the bus market to the Competition Commission has been sharply criticised, with transport authorities suggesting the cure could be worse than the disease.

The OFT said its five-month study had identified a number of features of the market that could restrict or distort competition in the sector.

But a chorus of opposition was united in the view that more on-road competition was not the answer.

The OFT's decision earlier this year to mount a market study, just after the Local Transport Act became law, was greeted with incredulity. One of the issues the Act sought to address was

the simplistic approach of the competition authorities, which prevents bus companies collaborating on integrated fares and ticketing.

The OFT said that features that could distort competition included:

- A situation where the majority of local routes are operated by a small number of large bus companies
- Higher fares in those areas where operators with a strong market position are not challenged by a large, well-resourced rival
- Complaints alleging predatory behaviour of incumbent firms designed to eliminate competition from new entrants, and
- Low numbers of bids for supported service contracts.

David Brown, lead director general on bus issues for the Passenger Transport Executive Group, said: "The evidence that the OFT has found is symptomatic of all that has been wrong about 20 years of bus deregulation. However, this is an area where the Competition Commission's cure could be worse than the disease – if they seek to promote more on-road competition as a solution. The best way forward is to use the powers in the Local Transport Act to ensure that local authorities have more influence over local bus services in order to protect passengers' interests."

Campaign for Better Transport campaigner Cat Hobbs said: "The OFT is right that bus company mo-

nopolies are bad for passengers, but wrong to assume that the answer is more on-road competition. On-road competition can mean bus wars, but no competition can mean high fares and low quality services. The answer is for transport authorities to take a more active role in providing bus services."

A Confederation of Passenger Transport spokeswoman said: "Bus companies operate in highly competitive local markets and it is always in our interests to keep prices competitive to attract passengers out of their cars and on to our services."

The OFT decision is provisional and interested parties have until 15 October to submit their views.

## BAA applies for Airtrack construction powers

**B**AA has submitted a Transport & Works Act application for powers to build Heathrow Airtrack.

The proposed new rail link will connect Heathrow with the national rail network to the south and west of the airport. The Transport Secretary is likely to call a public inquiry into the proposals early next year.

Airtrack would connect Heathrow Terminal 5 to London Waterloo,

Guildford and Reading. In addition some Heathrow Express services would continue through to Staines.

The project would entail fitting out two platforms at the existing Terminal 5 station; tunnelling between Terminal 5 just to the south of the A3113 Airport Way; building a new length of railway across Stanwell Moor and Staines Moor, and a chord near Staines to connect trains from Guildford and Reading to the Wind-

sor line; and building a new station at Staines High Street.

The plans have been developed following two rounds of public consultation last year. Local authorities are pressing for a solution to the question of level crossings along the route, where the increased number of trains is likely to cause congestion. BAA says it is ensuring that designs for the proposed depot at Feltham limit light and noise pollution and

that disruption to Staines town centre is minimised.

Benefits include improved rail services to the west of London and in the Thames Valley, improved local public transport to Heathrow, and a reduction of up to 5000 cars from local roads in the three-hour morning peak period.

If an inquiry is held at the beginning of 2010, TWA powers could be granted towards the end of the year.

## Richmond converts to biodiesel



Richmond councillor David Twigg eats a portion of chips, the cooking oil for which will ultimately power council vehicles

**R**ichmond Council is to convert its entire 200-strong vehicle fleet to run on biodiesel, in a move that will reduce carbon emissions and also save money.

Everything from refuse collection trucks to passenger buses will be converted to run on the biofuel, following a successful trial in 2007.

The move makes Richmond the first council in the country to move over to 100% biofuel, which will be made from recycled cooking oil from London's kitchens and restaurants.

The borough estimates the move will cut carbon dioxide

emissions by 1,170 tonnes annually and save £55,000-60,000 a year at current prices.

Uptown Oils from south-east London has been chosen as main supplier following a competitive tendering process, with Proper Oils of Twickenham as reserve supplier for 750,000 litres of fuel a year. The council said the decision to use two London-based firms would minimise the carbon footprint for the collection, processing and delivery of the oil to the council.

The 2007 trial showed no significant differences in performance from the biofuel and standard diesel.



# Abandon white elephant projects, says think-tank

**L**ack of co-ordination between different modes of transport and ministers focusing on big, flagship projects is jeopardising UK transport capacity, according to a paper by independent think-tank Reform.

Its paper, *Any time, any place, any way*, says that the crisis in public finances is affecting transport spending, but investment in infrastructure is essential for economic growth.

To avoid a capacity crisis, policy-makers need to focus on "practical, value for money solutions" to provide improvements today, instead of "big white elephant projects".

Radical funding ideas including more user charging will have to be embraced. "Ring-fencing this money for transport and abolishing fixed charges could help secure public support," it argues. Charges on business benefits from new trans-

port links should be explored, as is happening with Crossrail.

In a return to Eddington's "modal agnosticism", Reform argues that transport policy should not favour one way of travelling over another but should judge each on their economic viability. Concerns such as carbon emissions should be dealt with "in a uniform way".

Merging the "plethora" of existing transport agencies and regulators

into one would help achieve this, and would also save money.

Quick, low-cost solutions to ease the capacity crisis include longer trains instead of high speed rail, and using the hard shoulder instead of building new roads.

Current policy, it argues, results in "irrational investment decisions". Road travel constitutes over 90% of all journeys to rail's 7%, but they receive similar levels of funding.

## Minister backs personal rapid transit

**T**he designers and manufacturers of the revolutionary Ultra personal rapid transit system have received the backing of a minister in their drive to apply the system in an towns.

Angela Smith, MP for Basildon and Thurrock and minister for the third sector, gave her support following a visit to the site where the Ultra pods are manufactured, at ARRK R&D in her constituency.

Advanced Transport Systems, inventor of the original concept, and ARRK are planning to approach local councils to find an urban regeneration project to demonstrate Ultra's potential as a transport solution.

The driverless pod system has been chosen by BAA for a £25m transport link between Heathrow

Terminal 5 and its car park. The battery-powered vehicles are capable of carrying four adults along a special 2.4 mile concrete guideway at up to 25mph under computer control. Passengers should have to wait no more than three minutes for a pod to arrive, and the journey will take five minutes.

The system is due to open later this year.

ATS contracted ARRK in 2004 to engineer, prototype, test and manufacture the pods.

Ms Smith said: "ATS and ARRK have demonstrated how technology can be applied to develop sustainable transport solutions that address environmental issues."

The emission-free electric vehicles are said to reduce energy per passenger by a factor of two compared to current public transport.



**The emission-free electric vehicles are said to reduce energy per passenger by a factor of two**

## Climate committee calls for action on aviation

**T**he Committee on Climate Change has called on the Government to make sure that global aviation emissions are capped as part of any agreement on climate change at the Copenhagen summit later this year.

Aviation emissions must be capped at 2005 levels or lower in the period to 2050, the committee says.

Even a cap at this level implies emission cuts of 90% in other sectors to reach the UK's target under the Climate Change Act of an 80% cut by 2050.

The recommendations are outlined in a letter this week from CCC chair Lord Adair Turner to Transport Secretary Lord Adonis and Energy and Climate Change Secretary Ed Miliband.

Calling for "a new and ambitious policy on aviation", the CCC says the recommendations are in line with the target of reducing global greenhouse gas emissions by 50% by 2050.

If left unchecked, global aviation emissions could account of 15-20% of all carbon dioxide produced by

that date, the committee says.

The CCC calls for aviation to be included in the EU cap and trade scheme from 2012 but says allowances should be fully auctioned to prevent airlines gaining windfall profits.

Emission trading offers short to medium term flexibility but in the long term the aviation industry "should plan for deep cuts in its own emissions".

Radical innovation in airframe and engine technology will be required to reduce emissions and

a funding source for research and development should be identified as part of a deal.

The committee points out that additional non-CO<sub>2</sub> effects from aviation such as nitrogen oxides and contrails contribute to global warming and the effects of these should be addressed in a global deal.

CCC chief executive David Kennedy said: "We are calling for a cap that would not require people to fly less than today but would constrain aviation emissions growth going forward."

Bombardier's new EMU draws on the best technology from the company's worldwide train portfolio



# Aventra promises best in class reliability and energy consumption

**B**ombardier has unveiled a new electric train design optimised for the UK market, which it promises will be the lightest in its class as well as consuming 50% less energy.

The new Aventra was developed at Bombardier's UK base in Derby, where engineers drew on the best technology and features of the company's 22 existing metro, regional and commuter trains worldwide. In addition a whole-life cost model was used to optimise the balance of capital cost against energy consumption, track access charges, operating costs, maintenance costs and train performance to give the lowest cost of ownership over a franchise.

Bombardier also predicts the unit will show a 70% improvement in reliability over current best in class electric multiple units in Europe.

Bombardier says the new design

represents a step change in performance over its predecessor, the Electrostar. Though particularly suited to the UK market, the company also expects to be able to export it to mainland Europe. The design is ready to go in production as soon as the company receives an order.

Though not explicitly stated by the company, the new unit is clearly suitable as Bombardier's offering for the DfT's Thameslink order for over 1,300 carriages, with the Crossrail fleet in its sights after that.

The average weight of a carriage of 32.6 tonnes improves on the firm's 42t Class 378, already best in its class, by 21%. This has been achieved by taking the best in class bodyshell and lightening it further, substituting lighter aluminium structural components as on the company's Metro vehicles and incorporating lighter system components.

It uses the lightweight Flexx Eco bogie, already proven in service on other trains. Its short wheelbase and reduced mass contribute to reduced track access charges and unrestricted route availability, leading to a better residual value at the end of a lease period.

Energy savings of 50% over a Class 319 Thameslink EMU are claimed, partly through the reduced mass but also through regenerative braking, high efficiency transformers and traction motors, LED lighting and intelligent air-conditioning. A driver assistance system integrated into the signalling system will help the driver to minimise energy use while keeping to the timetable and showed an average saving of 13% in a trial on a Class 365 train on the Thameslink network.

In addition it will be possible to shut the train down completely at

night, with the ability to be "woken up" remotely so that it is warmed up ready to go into service as soon as the driver arrives.

Bombardier's Orbiflo control system will provide real-time operational information. The train will incorporate flat-screen passenger displays, as well as the company's standard communications backbone, which allows additional electronics (for example Wi-Fi) to be added easily.

On the basis of experience on recent build and maintain contracts Bombardier predicts up to 70% better reliability than the current best in class EMU.

Passengers will notice faster journey times due to faster acceleration of 1m/s<sup>2</sup> compared to 0.6-0.8m/s<sup>2</sup> for current UK EMUs; shorter station dwell times; increased passenger capacity and wide gangways.

## Dublin Bus adopts radio-based vehicle management system

**I**ntelligent transport systems provider INIT is to supply Dublin Bus with an advanced vehicle management system, supported by Tait radio communications technology.

INIT is supplying its intermodal transport control system Mobile-ITCS, giving dispatchers an overview of services at any time and allowing

them to react to any problems that arise.

Work has started on equipping the 1050-strong bus fleet with on-board equipment using INIT's Windows XP embedded operating system.

Buses will gain traffic signal priority at junctions equipped with INIT's LISA traffic signal units.

For communication of data

between the buses and the control centre, Dublin Bus has opted for New Zealand-based Tait's TNDS data transmission solution. This allows regular transmission of small data packets containing vehicle position and status, and transmission of information back from the central server, at intervals of between 10 and 60 seconds, without interfering with

voice communications. The existing Tait voice-only radio system is being upgraded to handle both voice and data.

INIT's Mobilestatistics integrated statistical evaluation software will allow analysis of operation performance, while roadside inspectors will be able to display real-time information on portable units.



# BAE, Lotus announce hybrid successes

**B**AE Systems will provide the power systems for up to 500 hybrid buses ordered by King County Metro Transit in Seattle.

The company will supply its HybriDrive to DaimlerBuses North America, which has received an order for 500 Orion VII hybrid buses with an option for an additional 200. In the first year 93 units will be supplied.

The buses will use BAE Systems' lithium-ion batteries for energy storage, which offer longer life than other battery types and reduce weight.

The HybriDrive system is a series hybrid system and consists of a generator, an electric motor and an energy storage system under computer controls. A diesel engine drives the generator only, running

independently of the electric drive motor. This arrangement allows the diesel to run at almost constant speed for optimum efficiency. The system dispenses with a mechanical transmission, greatly simplifying maintenance.

Currently Hybri-Drive technology powers more than 2,000 buses in the US and UK. The company says these buses have accumulated more than 100 million miles and saved nearly 5 million gallons of diesel fuel. The system is being evaluated in the trials currently being undertaken by TfL in London.

• Lotus Engineering has unveiled its Range Extender engine, specifically designed for use in series hybrids.

The engine is designed to drive an electricity generator to power the vehicle's electric motor directly, or to charge its battery.

The three-cylinder 1.2 litre engine is optimised between two power generation points, giving 15kW of electrical power at 1,500 rpm and 35kW at 3,500 rpm via the integrated electrical generator. It has a mass of only 56kg.

The engine uses can run on petrol or alcohol-based fuel.

Construction is innovative, with an integral cylinder block, cylinder head and exhaust manifold in one aluminium casting, to reduce engine mass, assembly costs and size.

The Range Extender was developed as part of the 'Limo-Green' project funded by the UK's Technology Strategy Board, a collaboration between Lotus Engineering, Jaguar Cars, MIRA and Caparo Vehicle Technologies, to demonstrate a large executive saloon with less than 120g/km CO<sub>2</sub> emissions.

# Double boost for biofuels

**S**tagecoach founder Brian Souter has bought a stake in the company which supplies biodiesel for his buses.

Argent Energy, based in Motherwell, has been bought by a consortium including Souter Investments, the Souter family's private investment company, plus existing managers, from buyout firm Cinven which has backed Argent since 2001. Founder Andy Hunter remains as chairman.

Argent Energy pioneered the large-scale commercial production of biodiesel in the UK, starting in 2005. It makes the fuel by recycling waste products – tallow, a form of animal fat, and used cooking oil – so that the product is fully sustainable.

Since production began the company has produced over 170 million litres of biodiesel. Its plant has an annual capacity of over 50 million litres.

Stagecoach has been using 100% biodiesel for two years in a fleet of eight Biobuses operating between Stewarton and Darvel via Kilmarnock and carrying over 15,000 passengers weekly.

Passengers are offered discounted travel in exchange for recycling waste cooking oil.

Separately TMO Renewables, based near Guildford, Surrey, has raised £11m from a range of investors to finance the next stage of development of its process to convert biomass into fuel ethanol.

The company claims to be a leader in the development of second generation biofuels, produced from waste products such as wood chippings. It has built a demonstration plant for its process, which uses a high-temperature fermentation process to turn sugars in woody biowaste, including cellulose, into ethanol.

It will use the new funding as working capital for a push into the US market, where it can be retrofitted to existing corn ethanol plants to improve yields by 10-15%, or used in new-build facilities.

Backers include existing shareholders Jupiter Asset Management, Noble Group, and RAB Capital, and new investors Presnow, Diverso Management and Libra Advisors.

# First brings Greyhound to the UK

**F**irst Group will launch its first Greyhound coach services in the UK next week, running from London to Portsmouth and Southampton at hourly intervals.

The company promised fares starting at £1 (plus 50p booking fee) with a high standard of service, with leather seating, free wi-fi, power sockets, air-conditioning and complimentary newspapers.

First acquired Greyhound in 2007. The 95-year old brand is famous for its long distance services across the US and Canada. Passenger demand on Greyhound's Bolt-Bus subsidiary, with similar features to those Greyhound will have in the UK, has surpassed expectations.

The London to Portsmouth and London to Southampton services will run from a number of kerb-side pickup locations in both south coast cities to Victoria in London. They will then run non-stop between the two cities, taking under two hours and providing a journey time up to 40% quicker than rival services which typically make intermediate stops such as at Heathrow, according to FirstGroup.

Services will integrate with Isle of Wight ferries.

The coaches will only have 41 seats rather than the typical 50, providing more legroom.

Greyhound UK managing director Alex Warner said market research suggested that 46% of rail customers and 73% of current coach customers would consider trying Greyhound. FirstGroup chief executive Sir Moir Lockhead said he believed the service would also attract people from cars.

The main market is likely to be students, as well as commuters and day trippers. First is developing plans to introduce further UK Greyhound services from 2010.



# **scottish** **transport awards**

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## award categories

### Awards for local authorities/regional partnerships

- The Scottish transport local authority of the year
- Dedication to access for all
- Best bus service
- Road safety, traffic management & enforcement
- Best transport integration
- Best practice in travel to school and work schemes
- Cycling improvements
- Walking & public realm

### Awards for public transport operators

- The public transport operator of the year

### Awards open to all

- Contribution to sustainable transport
- Contribution to freight transport
- Excellence in technology and innovation
- Transport team/partnership of the year
- Travel information and marketing
- Frontline employee of the year

### Awards nominated by the Judges

- Outstanding contribution to local transport in Scotland
- Outstanding contribution to transport across Scotland

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# Our city stations have the capacity to inspire

With space at a premium, remodelling a central station is difficult and takes time to get under way. But the right approach can revitalise the city centre

**T**he Dutch and Swiss have done it, the French and Spanish are busy at it, but we still seem reluctant to embrace the need to plan for growth. The disbelievers and the complacent will assume that the recession does away with this need. But the wise use the breathing space to plan for a better future.

Nowhere is there a greater need than in the expansion of city centre rail stations. Mercifully, we have some proposals in hand, most notably London Bridge and Victoria in the capital. The need for Birmingham New Street's redevelopment, running out at a cool £0.5bn, stemmed from passenger movement constrictions. But we don't seem to have grasped the simple point that the footfall through pretty much all the nation's major stations is going to double in the time it takes to get a major redevelopment conceived and implemented.

Alert local authorities strive to form partnerships with Network Rail to enhance the status of their central stations as a "gateway" for visitors to the city. Often, they want to go further, offering new and more direct access. This will be one of the ways that Bristol Temple Meads will be magically made closer to the city centre, and how the stations in Leeds and Newcastle can be made approachable from developments created in the 1980s, immediately to their south.

But in other cases, there is simply an insufficiency of tracks and platform space, and this is going to require some radical thinking: Liverpool Lime Street, Manchester Piccadilly are examples.

Radical can mean expensive. If we had electrified cross-city routes, these would be an early bet for being sent underground. The fact that we don't offers a good chance to add capacity efficiently. By cross-linking, we can remove the wasteful practice of pairs of local or regional services from opposite directions terminating and using excessive platform capacity,

replacing them with a single service running cross-city. This frees capacity for growth in other services, as well as improving the economics of local rail service provision. It strengthens the case for enhancements to city transit systems that serve the central rail station too.

It would be even more impressive if we could really go for some integrated development – planning for expansion of the city centres, for instance.

But what if there's a need simply for more space to accommodate the growth in rail demand, space which

**Footfall through pretty much all the nation's major stations will double in the time it takes to get a major redevelopment implemented**

has to be found in the heart of the city where land prices are highest?

It helps if someone had seen the need coming a long time ago. This was the case, it turns out, in Lille, often admired for the forceful way in which its mayor was able to persuade SNCF planners to route the high-speed line from Paris to the Channel Tunnel away from its natural orientation through Amiens and capitalise on the result with a transformed city economy. Between the wars, someone had the idea that one day Lille would need a through station (as well as its traditional terminus, Lille Flanders), so when the opportunity came knocking, the site was available to put in place what became the TGV/Eurostar hub station, Lille Europe.

So successful is regarded the associated development of 'EuraLille' that the French want to roll it out else-

where. There will be a EuroRennes, when this provincial city in Brittany (population 365,000) gains its TGV line in 2013, not to mention its second Metro line in 2018. Or Bordeaux, where the arrival of the TGV in 2016 at the city's main station will lead to an increase from nine million passengers annually to 20 million. Here will be 'Euratlantique', another major development of great commercial significance, built on 30ha of land released by French railways. Ah, the joys of cooperation.

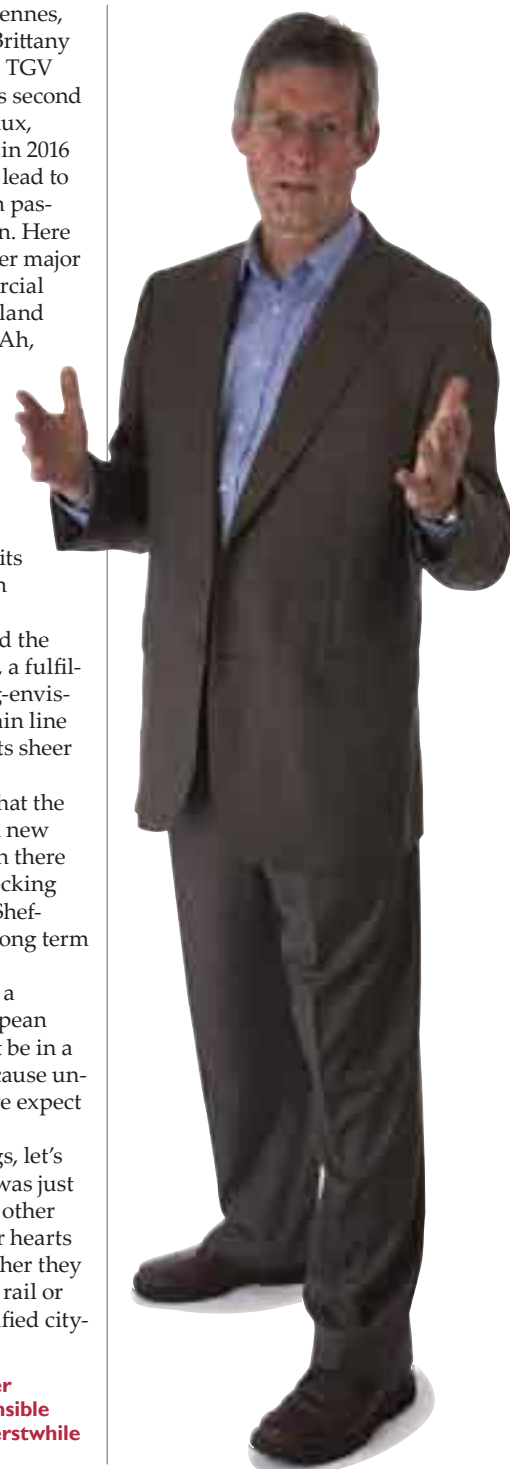
It's now commonplace to regard the 19th-century architecture of existing stations as admirable as well as functional. The newly-adapted station at Antwerp will surely inspire tourist visits to the city, perhaps more than the astonishing Calatrava-designed station at Liège. And the new Hauptbahnhof in Berlin, a fulfilment of another of those long-envisioned schemes to integrate main line termini, can be admired for its sheer engineering bravado.

I can't think of anywhere that the UK has a protected plan for a new facility on this scale (although there is the odd city centre site knocking around largely unused, like Sheffield's Victoria). We don't do long term plans.

So we might seem to be on a different page from our European neighbours. But we shouldn't be in a different book altogether, because unlike many of these nations, we expect our population to rise.

When we build these things, let's not presume that St Pancras was just a one-off. There are plenty of other city centre stations where our hearts can be equally uplifted, whether they are conceived for high-speed rail or for the equally needed electrified city-region networks.

**Jim Steer is a director of Steer Davies Gleave and was responsible for strategic planning at the erstwhile Strategic Rail Authority.**



# Please take away all your ridiculous announcements

Train operators are advised to cease bombarding us with unnecessary warnings – and while they're at it, design a decent website, stop raising fares and refrain from installing barriers. Is it too much to ask?



**T**here is something deeply perverse about the rail industry. In a recession, when customer numbers are falling, most companies would try to attract more users by, for example, reducing the price of the product or improving it.

The train operators seem to be doing the opposite, making train travel less pleasant in various ways. First, and most obviously, they are increasing non-regulated fares by amounts well above inflation. There are already predictions that since regulated fares will go down by 0.4% in January, other fares will rise by large amounts to compensate.

At a time when many people are in difficult economic circumstances, and the growth in passengers has come to a halt, some train operators have surreptitiously cut back on the number of cheaper tickets while others have put up fares twice this year. The train operators seem to be sacrificing their long-term interests in order to make up shortfalls in their bottom lines.

Then there's the question of barriers. Encouraged by the Department for Transport, various operators, National Express and Stagecoach in particular, are installing barriers willy-nilly at stations around the country. There has been particularly fierce opposition at York (where they would put out of use a direct connection with the National Railway Museum installed only a few years ago – though for the moment planning permission has been refused) and Sheffield, where the route through the station is used by local people.

While barriers have a role to play in busy suburban stations, they are a major impediment to long-distance travellers with luggage. Lord Adonis, the transport secretary, supports the companies' efforts even though their argument that barriers boost revenue is disputed by several experts in the field.

Another aspect of the "customer interface", as the marketing people call it, is also becoming harder: buying tickets. Ticket offices are closing, to be replaced by machines which, while improving, still leave a lot to be desired – particularly as the pricing system is so complicated that one needs advice on what to buy. Train operator websites are among the least user friendly that I have encountered.

Partly this is a result of the complexity of the ticketing system, but also of poor design. The National Express website is specially difficult to navigate. Not only did it suggest to me tickets costing between £25 and £288 for a trip for three people to York, but it was only when I clicked on the "offer" that I could investigate

**Surely the aim should be to provide environment that is as pleasant and comfortable as possible**

the alternatives properly. Why not just offer the cheapest alternative for each train?

Then, most irritatingly, there is the question of announcements. Surely the aim should be to provide an environment that is as pleasant and comfortable as possible. Yet some operators seem to think that their "customers" need a constant bombardment of repetitive, banal and at times downright stupid announcements that infantilise their listeners.

My personal bugbear is the safety announcement, suggesting passengers read the notices which are not only unfathomable but also make train travel seem far more dangerous than it is. At stations the level of noise pollution has become almost intolerable, especially with the automated

ones about "unattended baggage" adding to warnings about feeding pigeons or slippery floors (this on a hot June day in Hull). As any psychologist will know, people will simply ignore such a constant level of background noise.

The worst offender is South West Trains, where not only is there the full panoply of automated announcements but then the guards take it upon themselves to repeat much of what has already been said. On a trip from Poole to London, there must have been a dozen warnings about moving into the right carriage to alight at certain stations, and twice as many about "personal belongings" (as opposed to non-personal ones?).

The company replied to a recent complaint from the Tory MP David Willetts that it was only following EU rules about disability and other legislation. This appears to be mistaken, as some other companies are much more restrained. On Southern, operating next door to SWT, there was a minimal announcement about the next station (not "station stop", a ridiculous tautology) as we left and approached each station, and that was about it. Nothing about taking "all" your personal belongings – as if one travelled with a lifetime of possessions – or "for your own personal safety, read the safety notice" or about travelling with the wrong ticket, slippery platforms or pigeon droppings.

Overall, there is a lack of consideration of what is likely to retain existing customers and attract new ones.

The train operators have basked in the luxury of increasing passenger numbers for over a decade. In these harder times they should be giving more thought to making train travel a pleasant experience.

**Christian Wolmar is a writer and broadcaster who writes a regular column for *Rail* magazine. His new book, *Blood, Iron and Gold: How The Railways Transformed The World*, is published next month by Atlantic Books at £25.00.**



# Councils will ditch targets to focus on the front line

Local authorities will have to find new ways of carrying out their functions, perhaps devolving responsibilities to partner organisations, if coming spending cuts are not to have disastrous effects

If the current economic downturn wasn't enough trouble for local transport authorities, local government is now being told by the Audit Commission to brace itself for a "second wave" of recession-related pressures. Although these will be characterised by a variety of related social issues such as alcoholism, drug abuse and domestic violence, the transport sector will inevitably face the brunt of cuts as councils are encouraged by the Government to concentrate resources on tackling such matters.

We already suspect that education and social services will be offered a degree of protection while transport and highways continue to be the Cinderella of council functions, being among the easiest of services to cut or slow down.

Ironically, investment in infrastructure and transport services continues to be one of the main catalysts for stimulating economic regeneration and supporting growth. However, the spread of the recession from businesses to the local community provides a new impetus to capitalise on the situation and reshape the delivery of our frontline transport services.

Over the last few years, local government has experienced a glut of national guidance designed to harness local knowledge in order to maximise the impact of local services. We have seen a range of initiatives from "place shaping" to "double devolution" and "localism". The latest idea centres on "Total Place", under which we are expected to identify efficiency savings among public partners within a locality by demonstrating how the totality of public money is being spent.

On top of this, around £100bn of public expenditure is expected to be put under the "scrutiny" of local government, according to another new consultation by the Department of Communities and Local Government ("Strengthening Local Democracy"). What is not clear is exactly how local authorities will have the capacity and

capability to act on this latest diktat, not to mention the vast number of other well-intentioned brainwaves, at a time when we are expecting year-on-year cuts of 5% or more in transport from 2011/12 onwards.

Recent reports have indicated that up to 290,000 public sector jobs across the UK could be lost by 2014. Without doubt, the opportunity to radically transform the way in which we provide services is now well and truly with us. Traditional salami-slicing of budgets is no longer an option for local government transport managers. Many authorities are in the process of quantifying the likely impact of Armageddon in 2011/12.

**Traditional salami-slicing of budgets is no longer an option for local government transport managers**

Norfolk, for example, believes it will have a £140m hole in its accounts over the next three years. North Tyne-side is facing a £14m gap in its capital expenditure and is already £320m in the red. These are not isolated examples. The one certainty is that authorities must continue to change, or, in some circumstances, literally face being close to bankruptcy.

The need to engage with third parties, including the voluntary sector, to physically help provide services is likely to be one of the key mechanisms of achieving more with fewer resources. Hypothecated grants, performance indicators and stretch targets could become things of the past as authorities strive to find new ways to provide front-line services using combinations of organisations, regardless of who is ultimately statutorily accountable. Providing services

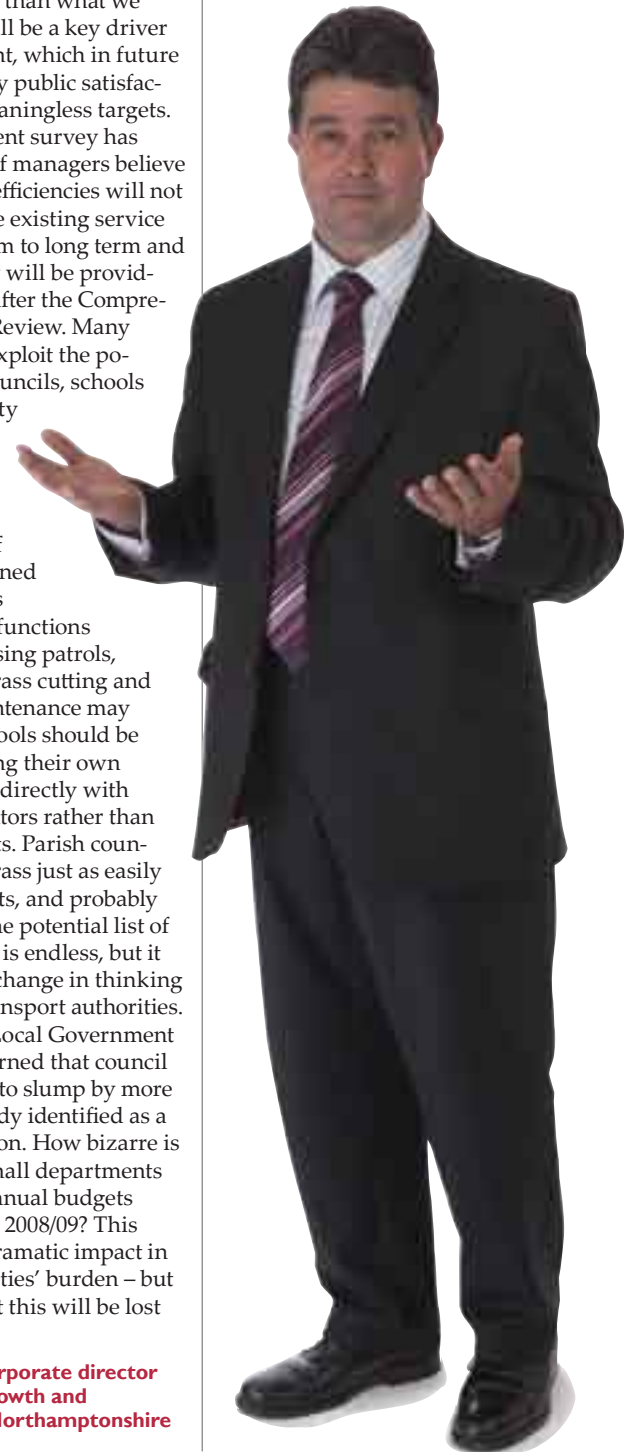
people want, rather than what we think they need, will be a key driver for local government, which in future will be measured by public satisfaction rather than meaningless targets.

A local government survey has revealed that 60% of managers believe that their planned efficiencies will not be enough to secure existing service levels in the medium to long term and 84% think that they will be providing fewer services after the Comprehensive Spending Review. Many will be looking to exploit the potential for parish councils, schools and local community groups to take on work traditionally undertaken by local government.

The economies of scale that underpinned the logic of councils directly managing functions such as school crossing patrols, school transport, grass cutting and basic highway maintenance may no longer hold. Schools should be capable of organising their own transport, working directly with bus and train operators rather than council departments. Parish councils could cut the grass just as easily as our term contracts, and probably more frequently. The potential list of devolved functions is endless, but it will require a step change in thinking by highway and transport authorities.

Meanwhile, the Local Government Association has warned that council revenues are likely to slump by more than the £4bn already identified as a result of the recession. How bizarre is it, then, that Whitehall departments underspent their annual budgets by around £20bn in 2008/09? This could have had a dramatic impact in easing local authorities' burden – but it is more likely that this will be lost forever.

**Tony Ciaburro is corporate director for environment, growth and commissioning at Northamptonshire County Council.**



# M6 Toll shows how not to do private roads

There is nothing inherently wrong with privately-financed tolled motorways, but it is essential to build in adequate controls when concessions are awarded



**J**ohn Kay is that rare animal, an economist who is able to write about his trade in a way intelligible to a lay audience. His study of the British tax system, co-authored with Mervyn King twenty years ago, remains the definitive account. But even brilliant academics occasionally go off the rails.

Professor Kay, currently visiting professor at the London School of Economics, wrote a column in the *Financial Times* last month headed "First Class Driving makes little economic sense". His thesis, based on the experience of Britain's only toll motorway, the 27-mile M6 relief road around Birmingham, was that its finances make little sense and that therefore there was no future for such projects in Britain.

According to Professor Kay, the cost of building the M6 Toll, operated by Midland Expressway, was £700m. But it yields net annual revenue of only £50m, a paltry 7% return to its ultimate owner, the Macquarie Infrastructure Group. These figures led him to conclude: "The economics of the project, even on the busiest stretch of the long-distance road network, are marginal... so enjoy your 30 minutes of privatised motoring. You are not likely to have another opportunity in Britain in the near future."

Professor Kay could not have got it more wrong. The story of the M6 Toll is not its paltry return: rather its lesson is that the 53-year terms on which the road was built, negotiated by the Conservative government in 1992 but endorsed by Labour when it came to power five years later, were so lax as to be absurdly generous.

This scandal, which has already cost users of the road hundreds of millions of pounds in excess charges, should have been investigated by the National Audit Office.

The fact that it has not is a sign of how poorly monitored such private finance deals have been.

Shortly after the M6 relief road opened for business in December 2003, a Macquarie executive boasted that it was a licence to print money because the government had set no controls, allowing it to charge whatever it wished. This comment led to the executive being sacked. But the truth of that indiscretion has been borne out by events. In August 2006, Macquarie paid itself an exceptional special dividend of £392m after restructuring its debt: a 270% tax-free return on its original

**The 53-year terms on which the road was built were so lax as to be absurdly generous**

equity investment.

Martin Blaiklock, a consultant in project finance, points out that this is only the beginning, not the end, of the M6 bonanza. The restructuring trick can and almost certainly will be played over and over again during the remaining 45 years of the concession, yielding Macquarie more special dividends and allowing it to avoid its tax liabilities ad infinitum.

So far, the company has not paid any corporation tax on its annual £50m revenue because the revenue is shielded by loans. Similarly, it has not paid any capital gains tax because it is based offshore. "Future users of the M6 toll road might wish to reflect on who benefits most from using this highway," concludes Mr Blaiklock.

The answer to that question is certainly not the motorist, who will continue to be gouged for the next

half a century. The toll fees are, at my very rough estimate, almost twice as much as they would be if they were charged on a proper basis.

To be fair to Macquarie, it now accepts, at least in private, that it took the British government for an expensive ride. Shortly after it paid itself the special dividend three years ago, it voluntarily agreed to invest £112m of its own money to improve feeder roads in the West Midlands.

That so-called act of generosity was a shrewd move, a message no doubt reinforced by the Highways Agency, which warned of bad publicity. But behind the scenes arm-twisting by civil servants is an ineffective way to control a private operator intent on profit maximisation.

The lesson of the M6 toll way therefore is not that there is no future in such projects. Financing new roads by charging motorists for their use makes good sense, but the deals must be properly structured. Government-sponsored monopolies will always have the potential for extortionate returns so they have to be tightly controlled.

In the financial years of austerity which lie ahead, when spending on transport infrastructure is likely to be slashed, privately financed, built and operated roads paid for by user charges offer a sensible way forward. This approach has the added bonus of being supported by an emerging political consensus. But whoever signs such deals in future needs to make sure that the motorist is not ripped off.

**Adam Raphael, a former executive editor of *The Observer* and transport correspondent of *The Economist*, is the associate editor of *Transport Times*. He is a former presenter of BBC's *Newsnight* and an award-winning investigative journalist.**

# Free us from the chains of long-distance commuting

The overriding issue is not how to make our transport network faster or more reliable: instead we should seek to reduce our dependence on it and scale back our ever-increasing need to travel

**L**ike Lord Adonis, I am reluctant to admit to being a rail enthusiast. Better to appear modally agnostic than prejudiced in favour of trains.

I had no particular interest in rail when I became transport correspondent of *The Times* nine years ago. The bug only took hold after repeated exposure to the most glamorous and exclusive parts of the rail industry – all for the sake of well-informed journalism, of course.

I don't think anyone else could boast of having been on board both the Eurostar which achieved the UK rail speed record of 208mph in 2003 and the TGV which smashed the world record in 2007, reaching a terrifying 356mph.

Not many have sat in the driver's cab all the way from Rome to Naples on the new high speed line, with the head of Italian railways pointing out interesting landmarks. Only a few dozen have travelled the length of HSI in a helicopter and been able to appreciate the full scale of this engineering marvel.

Please forgive this shameless showing off: I am only doing it to expose a personal shortcoming. Since switching to the role of environment editor last month, I have realised how much I allowed my enthusiasm to blind me to the bigger picture.

I spent too much time writing about trains as if they were an end in themselves rather than a means to an end. I still believe we should celebrate the joys of rail travel, but it is now clear to me that I spent too much time asking the wrong question.

The overriding issue is not how to make our transport network faster, more reliable or more affordable, but how to reduce our dependence upon it. If a commuter is locked into a daily 100-mile round trip, the only way to help him is to spray cash at the road and rail links to guarantee his journey times. Finding a way to unlock his commuting chains would

not only be cheaper and less environmentally damaging but give him far more direct control over his life.

Of course, freeing him from the need to travel long-distance to work five days a week would be of limited benefit if he and his family still had to make long journeys to access basic services.

The Government's "choice" agenda is a dangerous deception. It claims to be offering people more choice in how they access education, health and other services. But that choice is of limited value if exercising it means spending more time and money

**Rather than ensuring that schools and hospitals meet a minimum standard, the Government tells people to travel further to find a better one**

travelling, not to mention exposing other people to the pollution, noise and congestion caused by those extra miles.

Giving parents the freedom to choose schools has resulted this year in a record 370,000 pupils travelling to state schools outside their own local authority area. Rather than ensuring that all schools meet a minimum standard so that people will be happy with their local one, the Government allows some schools to fail and tells people to travel further to find a better one. It plays the same trick with doctors' surgeries and hospitals.

Geoff Hoon proudly told me last Christmas that I would not catch him using the phrase "reducing the need to travel" because he thought ever-increasing levels of mobility

were a good thing. There has been a subtle change of approach since Mr Hoon was replaced by Lord Adonis. Despite his passion for trains, the new transport secretary seems to recognise that real choice means finding what you need closer to home.

Last month's DfT publication, *Low Carbon Transport: A Greener Future*, said: "We also recognise that there can be opportunities for reducing the amount we need to travel. We see two main areas of possibility. First is the use of information technology which has the potential to enable access to the people, goods and services we need without having to travel.

"The second opportunity is in spatial planning. The pattern of transport demand is heavily affected by the way we use land and we need to ensure that the planning system takes full account of the potential consequences of development for transport."

This should not just mean rejecting applications for out-of-town shopping centres, but also revisiting plans for so-called eco-towns to minimise the need to travel beyond them. They should be model self-dependent communities, not dormitory towns.

This self-dependence should not be achieved by limiting the opportunities to travel but by making local services and amenities so attractive that people choose to stay closer to home.

Our trains should carry more rail enthusiasts choosing to travel and fewer stressed commuters forced to travel.

The DfT needs a new slogan: "Reducing the need to travel; enabling the desire to travel".

**Ben Webster is environment editor of *The Times*.**





# Sustainable transport from fewer resources

A strong partnership, the ability to make difficult decisions, and greater funding flexibility will allow the South East Regional Transport Board to make the most use of investment, says **David Robertson**



**David Robertson:** "Decisions made in the South East are of fundamental importance to the country"

**A**s the most populated region in the UK, the South East is the powerhouse of the UK economy. In 2006-07, the region contributed £17.7bn to Government funds – around half the national net contribution. In addition, the South East is one of the main transport gateways from Europe to the rest of the UK.

So decisions made by the South East England Regional Transport Board (RTB) – charged with providing leadership for the region's transport infrastructure – are fundamentally important to the country, as well as to our own continued economic success.

The RTB was established by the South East England Regional Assembly four years ago as the first of its kind in the UK. Although a government review led to the assembly's dissolution earlier this year, the significance of the RTB's work meant that local authorities and regional partners supported its retention as part of the new regional architecture.

The RTB is a partnership between the region's key bodies: local authorities, the South East England Development Agency (SEEDA) the Government Office of the South East (GOSE), Network Rail, the Highways Agency and the Confederation of Passenger Transport, among others. It remains an effective forum for consensual decision-making and ensures that the region's voice is heard loud and clear through the corridors of Whitehall.

A major challenge for the RTB in the South East – and for all regions – will be to make sure that investment decisions make headway in tackling climate change. As public sector funds come under growing pressure over the next decade, it must play its part in making sure that a sustainable transport system is created with fewer resources. And the focus of resources needs to take account of the critical role transport plays in supporting sustainable economic growth.

Naturally, all partners have their own view on where funds should be allocated. So it was vital that from its creation the RTB established the ability to make difficult decisions and to focus on agreed priorities to make sure all available resources are used to the best effect.

This was clearly demonstrated by the RTB's choice three years ago to target a large proportion of the region's resources to build the Hindhead Tunnel on the A3 between London and Portsmouth. On completion, this major project will remove the existing road from a Site of Special

**We can use our flexibility to support smaller scale, high impact, high value, smarter choice measures**

Scientific Interest, located in an area of Outstanding Natural Beauty of the Surrey Hills.

There will be significant economic benefits far beyond the South East, such as the route to and from the south coast ports carrying freight and tourists. Noise and emissions will be reduced, rare and protected species of flora and fauna will be safeguarded and safety will be improved.

The A3 Hindhead Tunnel project is just one of 15 regional transport priorities that have been, or are being, delivered since the RTB first met in 2005.

The RTB's financial contribution to the improvement of Reading Station, one of the busiest railway stations in the UK, was a significant factor in ensuring this much-needed scheme progressed. The enhanced station with new, longer platforms and improved signalling will provide extra capacity to the benefit both of

passengers and freight.

We also provide leadership in identifying key gateway projects for the region and the nation such as the need for extra capacity at Gatwick Airport rail station – especially with the 2012 Olympics on the horizon.

The task set by the Government now facing the South East is to work toward creating the integrated transport systems that everybody wants. This is part of the Delivering a Sustainable Transport System (DaSTS) work programme which, combined with greater funding flexibility given by the Government to the region, gives us the opportunity to provide effective solutions with fewer resources.

DaSTS involves getting regions to identify by the end of 2011 their key transport projects so that these can be fed into a White Paper due in 2012. These plans will realise one of our long-held aspirations: the alignment of funding decisions across all transport modes.

We can then use the flexibility we have at the regional level to target the available funds to support smaller scale, high impact, high value, smarter choice measures.

Continuing leadership and co-ordination will ensure that the board continues to conduct its work in the most cost-effective way, helping to support critical infrastructure projects that are smarter, targeted and better integrated.

And this is important. Reduced public funds mean that all regions will have to work harder than they have in the past to achieve bigger bangs for the much-reduced bucks in the years ahead. At the South East England Regional Transport Board we know we can do it because we've done it before.

**David Robertson is deputy leader of Oxfordshire County Council. He was elected chairman of the South East England Regional Transport Board in July.**

# Why our cities are backing a high-speed rail network

Europe is developing a network of high speed lines which will make possible seamless journeys across the continent. **Sir Richard Leese** explains why it is vital that the network should extend to cities in the UK

**T**he 21st century has been a story of the growth of cities – and a story that will need to continue if the UK as a whole is to reach its potential. This not only requires high quality housing and a thriving entertainment offering but a high-quality transport network to nurture the growing financial, professional and manufacturing industries.

Those cities of the North and the Midlands which have the right mix of assets to serve this burgeoning knowledge economy have thrived, and it is vital that we continue to harness this success if we are to continue to grow.

London has witnessed the biggest success of all UK cities and good connections with the capital are critical for others to thrive. Many businesses locate their head offices in London, and travel between here and the regional offices accounts for a substantial proportion of long-distance rail and domestic air travel.

Cities are becoming victims of their own success and there is significant strain on their transport infrastructure; congestion is increasing and there are more people travelling by train now than a decade ago, leading to unsustainable overcrowding. In order to expand the UK economy we need to address this lack of capacity.

The West Coast Main Line upgrade took over a decade and cost almost £9bn. Despite this it is expected to reach capacity by 2025. There is clearly a law of diminishing returns when it comes to investing in existing infrastructure; I also believe that when the cost of compensating train operators is taken into account it is by no means clear that upgrading existing track is a lower cost option than building new lines.

Rather, I believe that the UK's major cities should make a commitment, as part of a wider strategy addressing the nation's transport constraints and our cities' growth potential, to develop a High Speed Rail network

across the UK.

Already, 11 major cities have agreed to form a group to lobby the Government to make this a reality.

Edinburgh, Glasgow, Newcastle, Manchester, Liverpool, Leeds, Sheffield, Nottingham, Birmingham, Bristol and Cardiff have all pledged to throw their weight behind the campaign, to offer a unique cross-party collaboration bringing together Labour, Liberal Democrat, Conservative and SNP-led cities.

HSR to the Midlands, the North and Scotland will link cities across the UK and Europe by a passenger

**It is by no means clear that it upgrading existing track is a lower cost option than building new lines**

railway service capable of operating at speeds of 300 km/hr (186 mph).

HSR has the potential to carry up to 15,000 passengers hourly in each direction between London and other UK cities – more than double the combined capacity of the West Coast, East Coast and Midland Main Lines – and the potential to boost labour markets and business to business connectivity.

Depending on the route, the network could potentially cut Manchester-London journey times to around 1hr 30 minutes, Manchester-Leeds to approximately 35 minutes and Manchester-Edinburgh to just under two hours. London-Scotland journey times could be less than three hours and London-Birmingham around 45 minutes. This would also address the challenge of the north-south divide and make it easier to open up new business opportunities.

HSR already operates successfully

worldwide, and is developing rapidly in mainland Europe. There are over 10,000 miles of high-speed line in operation, under construction or in planning in Europe. Only 68 miles – High Speed 1 – are in the UK.

Europe is developing a network of high speed rail lines which allow for seamless journeys across the continent, and we believe that network should now cover the UK.

Experience has shown that where HSR is integrated with cities' planning policies, it can create huge regeneration opportunities. Places such as Lille and Lyon in France, Turin in Italy and Cologne in Germany have all benefited from HSR, with businesses choosing to locate close to the stations, replacing brownfield sites and leading to massive regeneration.

Studies are currently being carried out to identify a potential UK network, the economic and environmental benefits, and ways of funding it. The lobby group will be looking for all major parties represented in parliament to make unequivocal commitments to the funding of a national HSR network as a priority.

For those cities between the Midlands and Scotland, HSR would make business and leisure trips within the UK more attractive. It would free capacity on the conventional railway for more environmentally-friendly short distance local travel, and cut down on the need for domestic air travel, helping the UK play its fair share in carbon reduction efforts.

Not only will HSR be beneficial to Manchester and other major cities as tourist destinations, it will enhance the country's reputation as a world-class centre for business, allowing our economy to flourish, as well as permitting faster, more sustainable travel between UK cities.

**Sir Richard Leese is leader of Manchester City Council. The 11-city campaign for a high speed rail network was formally launched on Wednesday.**



**Sir Richard Leese:** "Cities are becoming victims of their own success"

# DfT shows leadership on carbon emissions

The Department's carbon reduction strategy continues to put its faith in technological fixes, but its stance on regional funding advice tells a different story, says **Richard George**



**Richard George:** "It will no longer be acceptable to wave through schemes regardless of greenhouse gas impacts"

**L**ast month's announcement that the regions were to receive billions of pounds for transport was strangely muted. Instead of the usual trappings of "good news" – the Secretary of State wielding a shovel and promising to get the country moving – the press releases quietly trickled out on the afternoon before the Norwich by-election.

Why so hush-hush? The answer lay in the accompanying letters to the Regional Development Agencies: the 2009 Budget had forecast major cuts in transport spending which hadn't been imagined when the allocations were drawn up. There simply wasn't as much money as the Department had thought there would be. Instead of getting local newspapers excited about bypasses that might never happen, could the Department have chosen to hold back until they knew which schemes would be built and which would be axed?

The letters to the regions also contained a stern rebuke for their failure to take climate change seriously. John Dowie and Nick Bisson, directors of regional and local transport delivery and policy, noted that "it is clear that the evidence currently available is not sufficient to fully appraise the carbon impacts of schemes and programmes to the extent that the Department would like, nor in most cases are the carbon implications yet seen to be driving either the overall strategy or scheme prioritisation".

They continued: "The region(s) should be aware that the UK is signed up to very challenging targets on greenhouse gas (GHG) emissions... Transport has a key role to play in meeting these obligations, and reducing GHG emissions is one of the goals established under its DaSTS (Delivering a Sustainable Transport System) work. The Department is looking to regions to make a positive contribution towards meeting these objectives, including,

where possible, through sustainable transport measures."

These unassuming sentences reveal a step-change in Government policy, and show that after years of our campaigning it has finally realised that we can't just cater for traffic growth and rely on technology to make the downsides go away. It will no longer be acceptable to wave through road schemes regardless of the greenhouse gas impacts and the regions should not assume that schemes in the Regional Funding Advice will receive funding if they lock in carbon-intensive activities.

**The regions should not assume that schemes in the Regional Funding Advice will receive funding if they lock in carbon-intensive activities**

From now on, Dowie and Bisson were saying, local and regional transport policy is to be guided by the need to reduce carbon dioxide emissions.

All this, of course, is very new; so new, in fact, that it seemed to have escaped the Carbon Reduction Strategy, published the week before, which preferred technology to behavioural change and was reluctant to do anything to halt the rise of traffic levels. The Department's transport modellers are still more comfortable with questionable evidence on biofuels and techno-fixes than with the consistent evidence from the DfT's own research into behavioural change and "smarter choices". It was as though the finest minds in the Department could only conceive of crossing their fingers

and hoping someone else makes the problem go away.

The carbon reduction strategy was predicated on the outmoded assumption that traffic is congenitally linked with economic growth and that we travel more because we have more money to spend on petrol. Any disbenefits – congestion, pollution and climate change – were to be tackled without disturbing the underlying cause; curing the symptoms, not the disease.

But as anyone stuck in a traffic jam will tell you, traffic is far more complex than this linear relationship to GDP suggests. While some traffic growth – notably business travel and freight – is driven by the state of the economy, many of us are driving further because we have to. The growing decentralisation of services and the lack of public transport, particularly in rural areas, is often a far more relevant driver than the size of our pay packets. As local post offices, shops and hospitals close we get in our cars and drive to the next one – often several miles further on already congested roads.

Any sensible strategy to reduce transport's carbon footprint must focus on the real causes of traffic, and suggest practical measures to halt and reverse its growth. This means providing people with alternatives, especially for road haulage, and making sure that limited budgets aren't wasted on schemes which fuel traffic growth and carbon dioxide emissions, like the monstrously expensive A14 Ellington to Fen Ditton or Mersey Gateway projects.

The RFA letters show that the Department understands the problem. We're focused on getting them to show real leadership and start cutting schemes which don't provide sustainable solutions to transport problems.

**Richard George is roads and climate campaigner with the Campaign for Better Transport.**



## The Mayor's plans for London need to take a longer-term, more radical approach to dealing with congestion, overcrowding and emissions, according to the **London Assembly Transport Committee**

**T**he media has given moves like removing bendy buses and banning alcohol on public transport plenty of attention. But a closer look at Boris Johnson's plans for transport in the capital highlight huge challenges that will require a more radical long-term approach.

Congestion, overcrowding, and unsustainable levels of emissions in the capital present a formidable three-pronged challenge. This must be tackled head on in the forthcoming draft Transport Strategy with the inclusion of large scale and potentially controversial proposals to address these problems.

The Committee's previous work on traffic congestion, rail overcrowding and its new inquiry into overcrowding on the Underground effectively demonstrate what transport users suspect already – London's transport network is struggling to accommodate existing demand for travel.

With projections for a million more people and at least two million more journeys in the capital every day by 2031, even with massive projects like Crossrail and Thameslink transport capacity will not keep pace with growth.

Existing proposals to boost capacity will not meet future travel demand – it's as simple as that. There will be a substantial gap between what London's growing population will need and what will actually be available to them. The growing imbalance between demand and capacity points towards a grim future of overcrowded buses and trains, delayed journeys and jammed roads.

What's more, the spiralling cost of upgrading the Underground, and the short-term impact on income from fares due to falling passenger numbers in the recession, mean Transport for London is struggling even to deliver existing plans. But failing to invest in transport infrastructure now will result in

the long-term growth predicted for London becoming unmanageable.

Therefore, the Mayor must set out proposals for specific projects to boost capacity – even if they are currently unfunded. Crossrail was unfunded for decades and only its constant presence as an aspirational scheme on the transport agenda has allowed it finally to become a reality.

As well as providing new capacity, the Mayor's long-term plans must include measures to influence travel behaviour and reduce the need to travel.

Schemes including pricing incentives to influence travel behaviour have long been advocated by

**The Mayor must set out proposals for specific projects to boost capacity – even if they are currently unfunded**

transport professionals because of the potential scale of benefits and efficiencies to be gained. However, the obvious political barriers to their introduction have meant they have been treated warily by politicians. The Mayor in his Statement of Intent says he will consider pricing incentives (including “fares, road pricing and other potential charging regimes”) “if required to meet the challenge”.

I believe it is essential pricing options are fully assessed in the draft Transport Strategy. This would allow potential schemes, to be subject to thorough consultation and debate.

Plans to introduce extra charges for drivers will no doubt face opposition. However, setting out the potential benefits and ensuring schemes are geared purely towards reducing problems like congestion,

overcrowding and emissions – not revenue generation – may make them a less bitter pill to swallow.

It is not all doom and gloom. TfL tells us London's public transport network is currently enjoying investment at levels not seen since World War II. The upgrade programme should eventually result in 30% greater capacity, with Crossrail boosting capacity by a further 10%. More than five million journeys are made by bus or tram every day.

However, there is so much more to be done and many more decisions to be made. Congestion, overcrowding, plus significant contributions from transport to climate change and poor air quality present a complex problem requiring a multi-faceted approach.

There has been a lot of debate about the best approach to transport provision in outer London. Orbital? Radial? Chordal? More likely a combination of these. What is clear is that transport infrastructure and services must anticipate growth in order to stimulate development – not try to catch up with it. This will be challenging as the Mayor has not yet finalised his review of the London Plan, which will define priority areas for development.

Alongside specific proposals for schemes to boost capacity and an assessment of radical options like road pricing, our response to the Mayor's Statement of Intent also calls for further investment in walking and cycling and more focus on smart measures to influence travel behaviour.

There are difficult choices ahead. One thing is very clear. The problems that plague transport in London will only get worse without the right intervention, and the Mayor is in the driving seat.

**Caroline Pidgeon AM is chair of the London Assembly Transport Committee.**



**Caroline Pidgeon:** “Long-term plans must include measures to influence travel behaviour and reduce the need to travel”

# Infrastructure continues to drive China's economy

China continues to expand its road and rail networks at an unsurpassed pace, with multiple sources of funding allowing work to continue even when growth falters, says **Charles So**



Charles So: "The government sees infrastructure as a means of sustaining growth."

**There are very different attitudes to development in China than in the west: some have humorously referred to the prevailing attitude as IMBY rather than NIMBY**

In January 2009, it was reported that China's GDP growth had slowed to 9% in 2008, the lowest for seven years. While such a level would be considered outstanding in most economies, it compared unfavourably to the 13% growth in 2007 and was an unwelcome 'wobble' in the long term economic momentum achieved since the late 1970s, when markets were liberalised, social reforms enacted and foreign investment encouraged.

More recently, however, there is evidence of a bounce back with strong second quarter results for 2009 following the government's stimulus package of US\$586bn (£365bn). Much of this the package reinforces the infrastructure expansion programme which was already in place. As an example, \$41bn was spent on new railway construction last year and this year it will rise to \$88bn. This emphasises the importance which government places on new infrastructure, both as a means of sustaining and consolidating long term economic growth and combating shorter term recessionary pressures.

In an article of this length it is impossible to discuss in great detail the development of China's strategic transport networks, particularly in recent years when huge change has occurred. Suffice it to say that the scale of change being sought is enormous and the investment required must, inevitably, match this ambition.

The reforms enacted since the later 1970s were accelerated in the early 1990s as markets became more commercialised and competitive and the private sector was increasingly encouraged to participate in the creation of new infrastructure. This was particularly evident in new road construction where, in December 2004, the government approved an expanded National Trunk Road System, the 7918 Network, which planned to build seven

capital radials, nine north-south highways and 18 east-west corridors by 2020. This new construction, totalling 85,000km, will be funded as toll-road concessions. Despite the already impressive credentials, some estimates suggest that, at the current rate of construction, the additional length will be completed by 2014.

China will also expand its rail network from 78,000km today to 110,000km in 2012 and to 120,000km by, under original plans, 2020 but now more likely to be 2015. Of this growth, 13,000km will be either high-speed (125mph-155mph) or very high-speed (up 220mph). The higher level of provision was originally proposed for four main corridors – Beijing-Hong Kong, Beijing-Shanghai, Xuzhou-Lanzhou and Shanghai-Changsha – but will now most likely extend to eight.

The route from Beijing to Shanghai alone will cost of \$23bn and halve the journey time to four hours for an estimated 80 million passengers and 100 million tonnes of freight a year. The authorities have disclosed that 110,000 workers are currently employed to finish the route as quickly as possible!

In other areas such as air and port provision similarly massive investment programmes are in place to ensure that China can develop the connectivity and accessibility necessary to sustain further economic growth both in those parts of the country which are economically mature and those which are still developing.

The question arises as to whether China can continue to maintain the levels of infrastructure investment which have occurred to date. While such an assessment is beyond this article, there are a number of interesting points which can be made. First, the methods of funding are different for different modes; roads are supported by the letting of private sector concessions (tolling)

while rail is funded through the public sector and general taxation. It means that even in recessionary times there are multiple sources of funding for major infrastructure development and job creation opportunities.

Second, there are very different attitudes to development in China than in the west: some have humorously referred to the prevailing attitude as IMBY rather than NIMBY and it is certainly the case that schemes move from concept to delivery in very short timescales.

Much has yet to be done in developing the transport networks further. For example, regulatory regimes need to be strengthened and new technology needs to be used more extensively and effectively. These evolutionary processes are already in hand and will serve to consolidate the enormous advances made by China in recent years. AECOM continues to play a significant role in developing the country's strategic road system and, most recently, has won, in joint venture, a design contract for the West Kowloon Terminus preliminary design consultancy for Guangzhou-Shenzhen-Hong Kong Express Rail Line (XRL). The terminus, with a footprint of more than 10ha, is the world's largest underground high speed terminus. It is strategically located between the existing Airport Railway Kowloon Station and the West Rail Austin Station, enhancing integration of the rail network in Hong Kong for local and international/cross-boundary services. The terminus will connect Hong Kong's MTR to China's high-speed rail network and, as the southernmost terminus, will be a key gateway to mainland China.

This is the type of huge investment which makes working in China unique, demanding and rewarding.

**Charles So is a technical director in AECOM's Hong Kong office.**



# High speed rail: a complete guide

The new line will have a design speed of 400km/h to suit new trains such as Alstom's AGV

The company developing plans for a route to Birmingham will also provide the Government with options to allow it to build an entire network, section by section. **David Fowler** reports

**T**ime is passing and High Speed 2's end of the year deadline is fast approaching. Soon the company charged with making recommendations on a high speed rail line will need to focus in on a single preferred London-Birmingham route.

Meanwhile everyone, it seems, has a view on where high speed rail should go. Two weeks ago Network Rail set out its plans for new capacity on the west coast route and proposals from Greengauge 21 are expected imminently. How do all these proposals fit in with what High Speed 2 is doing?

"The fundamental difference from what Network Rail published and what Greengauge 21 will publish later this month is that their studies are strategic, designed to establish the case for high speed rail. High Speed

2's work is both more detailed and wider ranging," explains Sir David Rowlands, HS2 chairman. "HS2's is an engineering-led approach. By the end of the year we will have a detailed buildable route from London to Birmingham."

In fact HS2 will produce considerably more than that. "Our declared ambition is to give the Government a complete guide to building a high speed rail network, and not to have to go and commission another two-year study."

And as far as London-Birmingham is concerned, what HS2 will provide will be *the* route: "the first stage of a real project to build a railway from London to Birmingham as opposed to another useful piece of work to establish an HSR proposition".

That means, says HS2 chief engineer Professor Andrew McNaughton,

**And as far as London-Birmingham is concerned, what HS2 will provide will be the route**

defining the line of route to within 25m horizontally in open country, more closely in built-up areas, and to within 0.5m vertically. "Every tunnel, bridge, culvert and fence line will be established and costed," he says. A range of costs will be given, together with "a proper simulation of a reference train" which will take into account gradients and the train's acceleration capability.

HS2 was also asked to make recommendations for the continuation of a high-speed network beyond Birmingham. So there will also be proposals, section by section, for extending the network beyond the West Midlands, including destinations in East Midlands, Yorkshire and the North East.

The results will be presented, in Prof McNaughton's words, "like a box

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# high speed 2



**Top:** Domestic high speed services to Kent have proved instantly popular  
**Middle:** Professor Andrew McNaughton  
**Bottom:** Sir David Rowlands

## from page 23

of Meccano, with costs – not to the same level of confidence, but reasonable – with journey times, benefits and so on” so that ministers will be able to choose and prioritise the phasing and construction of an entire network.

For the London-Birmingham section, Sir David says: “We have certainly looked at more options than anybody has ever written down on a sheet of paper: I’d be very surprised if you could think of an option we have not looked at.”

He adds: “None of what High Speed 2 has done has been in isolation.” It is working with a range of stakeholders to look at issues around London and along the route to Birmingham, as well as with the Northern Way and Scottish interests.

Some of the discussions around London and Birmingham are taking place in confidence, to avoid blighting large areas – an unwelcome mistake made by British Rail in the early stages of developing the Channel Tunnel Rail Link. Moreover, he says, “we know where every site of scientific interest, listed building and ancient monument between London and Birmingham is and they have all been taken into account.”

The organisation has gone to some lengths to capitalise on the experience of High Speed 1. In an open competition, High Speed 1 prime mover Arup was chosen as engineering adviser, alongside Temple, with Booz as environmental adviser. Both bring “corporate knowledge going back to the early stages of the CTRL”, says Prof McNaughton. Other people have been recruited who were involved in the early conceptual stages of Crossrail, bringing experience in planning such a project in an urban environment as well as in planning law.

The project is on target to meet the timetable set out by chief executive Alison Munro earlier this year, in which shortlisted route options will be refined down to one at the end of this month. Two months of “heavy duty” work on this option will follow before the final report is compiled in December.

The outcome is expected to be a single line of route, probably with options around sensitive areas. “If costs and journey times are similar it may be appropriate to put up more than one option, to be decided after consultation,” says Prof McNaughton.

At Heathrow, where HS2’s remit calls for it to make proposals to serve passenger flows to the airport, HS2 may not come down in favour of any of the options, which include Arup’s proposed 12-platform Heathrow Hub on the Great Western main line, and an interchange with Crossrail at Old Oak Common, a few miles west of Paddington. Sir David says: “It remains likely that for Heathrow we will give a number of options without expressing any preference, with the different costs and benefits of possible policy stances by the Government.” In other words this will ultimately be a political decision.

In addition the final report will set out all the route options HS2 has looked at “with a degree of detail which will reflect the point at which they were parked, with a broad outline of why”.

The organisation has also taken advice from high speed rail practitioners internationally. “We’ve had the benefit of an international perspective on what they’ve found good and what they’d have done differently, as well as from the current team at High Speed 1, all of which has been very valuable,” says Prof McNaughton.

One result is that the proposed design speed for the line will be 400km/h to build in a degree of future-proofing. He explains: “In 1985 the French began running at 270km/h on an alignment designed for 300km/h” – an alignment not now capable of being upgraded to greater speeds. Now, “Siemens has a train which will run at 350km/h, expected to be in service from Madrid to Barcelona within a year on a route designed for 360km/h. Alstom’s AGV, with a service speed of 360km/h, is expected to be on the network in a couple of years.” So designing a railway due to open in the early to mid-2020s for 400km/h seems reasonable. “We don’t see the need for higher capability,” he adds. “It doesn’t save much time, and engineering such a line across our crowded island would be more than a little challenging.”

Initial thoughts that a double track should be built have been modified. “We have understood that this is a more subtle question than we thought in January, when we thought that if you’re going to build it why not do four tracks to future-proof it?” says Sir David. Partly, improved braking means that there is less of a trade-off between speed and capacity (capacity is lost if trains have to be further apart to allow for braking distances).

In a strong hint that HS2 is leaning towards an east coast/west coast solution, Prof McNaughton adds: “There is no four-track high-speed line in the world at the moment. If you need more than two tracks why build them 3m away rather than using them to connect other cities?” Perhaps surprisingly, it is probably cheaper to build another separate track than one alongside, mainly because of the cumulative impact of building something which would be approaching the width of a motorway and as straight as a high speed line needs to be.

The question of whether the line should serve city centres directly, via spurs or via out-of-town parkways will depend on the location, on whether demand there is primarily for city centre to city centre journeys, and how much modal shift from motorways is expected.

Demand, and where people from London and Birmingham are expected to travel from, is being modelled “almost down to almost postcode level”, says Prof McNaughton.

Sir David adds that an impression given earlier in the project that parkways were ruled out was a misunderstanding. “We have an open mind,” he says. There may be some city centre stations, some parkways associated with city centres, and some parkways not associated with city centres. Stations may be sited to serve developing areas, as happened in Lyon where a new commercial quarter has grown up close to the station, away from the historic centre. Every station will, however, be an interchange, with the existing rail network, car or air.

“We are only dogmatic that it should indeed be a high-speed railway,” says Sir David. “If you put stations everywhere you can think of it won’t be high speed.” This may become an issue when the government consults on the proposals, with towns and cities lobbying for their own station.

It starts to become clear what Andrew McNaughton means by his mantra that high-speed rail will be “a new transport system, not a conventional railway that goes faster”.

It should aim to carry full loads, not carry fresh air around; in this way it will operate more like a commercial airline. Sir David says: "You maximise the CO<sub>2</sub> benefits by running full, not on the half-chance of someone getting on at a station you shouldn't have built."

The project must take account of 21st-century journey patterns and modal choices, unlike the present network, designed by the Victorians for their journey patterns. Much of the debate on a high-speed line has centred around journeys to and from London.

"There's the potential for something substantially different conceptually. Work we're doing at the moment is showing the potential for strong inter-regional flows, such as between Birmingham and Manchester – where rail currently has 4% of the total market because existing services aren't very good," says Sir David.

This links into the question of sustainability, where the performance of a new line will hinge on the extent to which it attracts passengers from other modes, reducing emissions, as

opposed to generating new journeys and increasing emissions.

"If there is substantial generated traffic, one aspect is that energy use and carbon emissions might be seen to be going up," says Sir David. "But if it unlocks economic activity across a number of city regions, high speed has the ability to allow these regions to start to come together as a single economic entity in a way they can't when they're two hours apart. When they're within an hour of each other there will be a different dynamic from a London-centric system."

In this way a high speed line could become "an offering to people who would otherwise use the car".

Prof McNaughton says: "The potential for modal shift is more between city regions than to London – they're currently linked by overloaded motorway. That's where modal shift could really kick in."

Perhaps the most significant barrier to a high speed line, literally as well as figuratively, is the Chilterns, an area of outstanding natural beauty. Disquiet has been expressed about the impact of a new railway through the area.

Prof McNaughton says: "There's a huge amount you can do with sensitive environmental design, starting with the alignment and how it sits in the countryside. Only then do you have to consider secondary mitigation such as noise barriers."

Tunnelling beneath the Chilterns, an undertaking on the scale of the Channel Tunnel, is not an option, so there will be a difficult balance to be struck between the interests of residents, wildlife habitats, and agriculture, as well as observing protected land, National Trust sites and so on.

HS2 hopes to be able to show it has struck the best balance between these interests. But Sir David adds that however sensitively the issue is approached, "it will remain the case that the encroachment of high speed rail on to the Chilterns will be unacceptable to some. It will be up to the Government to consider the balance of the deleterious impacts against the benefits to the national interest."

Prof McNaughton adds that the experience of Kent is that the High Speed 1 had much less impact than many feared. "Cows don't notice the trains, birds don't take off... the abil-

ity to demonstrate what was achieved there could be very important."

It's been suggested that now is not the time to be thinking about an undertaking on the scale of high-speed rail given the state of the public finances. Sir David accepts it is not an easy time but points out that HS2 will be providing the Government with advice on the likely timescale of the project. "We'll give our best estimate of expenditure year by year and set out the likely construction profile and at least a range of estimates of the continuing costs of building a network, like any well-structured project in the private sector would do."

He points out that it looks unlikely that construction could start before "the later part of the next decade" and that the Chancellor's projections suggest that about that time the public finances are expected to be coming back into balance.

Meanwhile, about 10% of the budget is likely to be spent before construction: "This is not trivial, but the DfT should be able to find from £50m to £100m or £200m a year when even a reduced transport budget will be measured in figures of £10bn-plus."

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# Developing Smart Ticketing Technology in the Transport Sector

One day conference 26 October 2009, Central London

The Department for Transport will publish a consultation document in the summer to look at possible incentives that could improve the adoption of smart ticketing.

We are delighted that **Louise Barnett, Head of ITS Policy Coordination** at DfT is confirmed as giving the keynote speech at this conference. Louise is in charge of smart card standards at the Department and is leading a team dealing with smart ticketing and the Department's relationships with ITSO.

New transport secretary Lord Andrew Adonis has announced plans to boost development and take-up of smart ticketing across the UK. At a recent Transport Times conference Lord Adonis highlighted integrated transport systems as one of the key challenges faced by his department.

"By extending the use of smart ticketing technology, we can transform people's perception and experience of public transport".

Lord Adonis cited the success of London's Oyster smartcard that is used for Tube, bus and increasingly train travel. DfT has already announced plans to help fund a project to make Oyster compatible with the ITSO smartcard standard used widely elsewhere in the UK. The use of mobile phones for travel tickets and mobile ticketing is likely to also feature in the consultation.

#### Key areas for discussion include:

- **What** progress are live smartcard ticketing schemes making in the UK?
- **What** is the future of mobile and contactless ticketing?
- **What** is Rail's progress in implementing smartcard technology?
- **What** is the progress in introducing Oyster pay as you go on rail in London?



#### Confirmed speakers include:

- **Keynote: Louise Barnett, Head of ITS Policy Coordination, DfT**
- **Mike Eastham**, General Manager and Head of Technology, ITSO
- **Shashi Verma**, Director of Fares and Ticketing, TfL
- **Steve Howes**, Managing Director - Rail Settlement Plan Ltd, Association of Train Operating Companies
- **Alastair Richards**, Project Manager, TIE Ltd
- **Mike Duncombe**, Yorcard Programme Manager

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# Wires spark joined-up thinking

Plans to electrify more of the UK's main rail lines have advantages for passengers, the environment and for operating costs, and dovetail neatly with the Super Express train procurement. **David Fowler** reports

**T**he Department for Transport has ordered an immediate start to a £1.1bn programme of rail electrification, with the first stretch of electrified line due to open, between Manchester and Liverpool, in 2013.

The bulk of the work will be the £1bn project to install wires on the Great Western main line, which had long been seen as the prime candidate for electric traction.

Transport secretary Lord Adonis justified the move, which is in addition to the existing 2009-2014 rail investment programme, on the grounds of environmental benefits and cost savings in the medium-term.

In a display of joined-up thinking, the plans will be designed to dovetail with other projects including Thameslink, Crossrail and the remodelling of the station and track at Reading. There are significant

implications for the Super Express inter-city train procurement, where a shift in the balance from diesel to electric trains is expected to bring about cost savings, but also for rolling stock generally. The government promises a new rolling stock plan in the autumn to take account of this.

The plans were widely welcomed, though there was disappointment in the East Midlands and Sheffield that the Midland Main Line was not included. Further analysis of the costs and benefits of electrifying this and other lines is to continue.

Meanwhile Network Rail is to develop plans for carrying out the work with minimum disruption, making extensive use of modular "factory trains" for the main runs of wiring.

A strategy document published to coincide with the announcement displays Transport Secretary Lord Adonis's grasp of rail history,

**It is not so much a question of whether the nation can afford to undertake the new investment, as whether it can afford not to do so**

quoting the British Transport Commission's 1955 report on modernisation of the railways, which said that, because of the advantages of electrification, "it is not so much a question of whether the nation can afford to undertake the new investment in its railway system here proposed, as whether it can afford not to do so and thereby continue to carry the economic burden of a public transport system that lags far behind the standard of efficiency technically possible."

The nation managed to afford not to do so for over half a century; though the Southern Railway's commuter routes into London were electrified in the 1930s there followed only piecemeal electrification of the inter-city network. London to East Anglia was electrified in the 1950s, the West Coast main line in

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**Top: Overhead cable installation on the Great Western main line will be coordinated with redevelopment of Reading station. (below left) Network Rail's "factory train" will improve efficiency of installation; (right) Super Express trains for the line will be electric or dual-mode, not diesel**



# rail electrification

from page 27

the 1960s and 1970s, the Midland main line from London to Bedford in the early 1980s and the East Coast main line later in that decade.

Since privatisation, the document says, efforts have focused on clearing the backlog of essential infrastructure work.

The strategy makes a strong case, citing numerous advantages of electric trains over diesels. These include running costs up to 35% lower; better environmental performance; and better reliability. Electric trains require less maintenance and have lower energy costs than diesel; additional costs in maintaining the overhead wiring and other infrastructure are outweighed by operating cost savings.

Electric trains are cheaper to buy and lease than diesels, an advantage set to grow as new EU emission standards from 2012 make diesels heavier and more complex.

Typically an electric train emits 20-35% less carbon dioxide per passenger than a diesel train; this margin will also improve over time as the proportion of renewable power generation grows.

Experience from around the world has shown that a well-designed and maintained electric railway will be more reliable than a diesel one. There are also capacity advantages: an electric train can provide more seats than a diesel of the same length because of the greater space taken up by diesel engines than by electric motors and transformers. Passenger comfort is better with less noise and vibration in electric trains.

On the Great Western main line, electrification will benefit both inter-city and commuter services. Commuter routes to Slough, Reading, Newbury, Didcot, Oxford and Swindon will gain electric trains by the end of 2016.

For inter-city services the DfT has recognised, just in time, the opportunity provided by the replacement of the Intercity 125 fleet by the Super Express train. The Hitachi-led Agility Trains consortium is the preferred bidder for a contract to provide the new train in diesel, electric and "bi-mode" variants.

"The replacement of the Intercity 125 high speed train fleet over the next decade creates a 'once in a lifetime' opportunity to electrify the route at the same time as replacing its rolling stock," says the strategy document. The government has decided to seize the opportunity for electrification this provides, "rather than embarking on a sub-optimal replacement of the HST fleet with another diesel-only fleet," which would have locked Great Western services into continuing with diesels for another 30 years.

Instead the new Great Western fleet will be a mix of electric and bi-mode trains (these have a diesel generator vehicle at one end and an electric transformer vehicle at the other).

Bi-mode trains will allow through services to Worcester, Gloucester, Cheltenham, Carmarthen and the South West beyond Bristol while still giving passengers the benefits of electrification on the sections where wires are installed. Journey time savings with Super Express trains are expected to range from four minutes to Reading, to 19 to Swansea.

"The contract with Agility Trains will be conditional upon their delivery of significant savings from the deployment of electric and bi-mode trains", the strategy says.

Plans to buy 200 new diesels for Thames Valley suburban services have been cancelled. Instead, as the new Thameslink fleet arrives from 2013, the existing four-carriage Thameslink trains will be modernised (including the installation of air-conditioning) and transferred to Thames Valley routes by the end of



Liverpool-Manchester electrification will also allow electric trains to run from Manchester to Glasgow

2016.

Electrification of the Great Western line to Maidenhead forms part of the Crossrail project; there will be close co-ordination between the Crossrail and the electrification project teams. Extension of electrification will make it possible to take Crossrail services as far as Reading, which many see as a more natural end point.

There will be potential to improve rail access to Heathrow from the west, currently limited because only electric trains can use the lines beneath the airport.

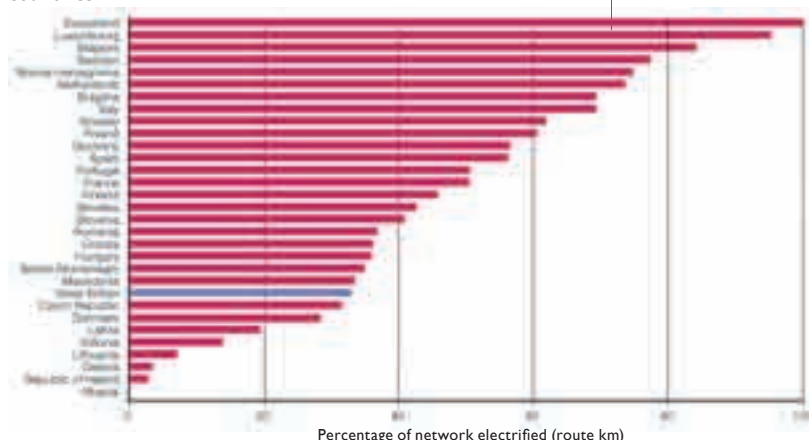
Close co-ordination will also be needed with the Reading Station Area Redevelopment Project which is designed to deal with the bottleneck and delays caused by limited capacity at Reading. This is due for completion in 2015; preliminary designs have made provision for electrification but there will now be work "to explore further synergies" to minimise disruption and keep down overall costs.

Network Rail is already planning to re-signal sections of the Great Western line using the European Rail Traffic management System. This will provide "immunised" signalling, which does not suffer interference from overhead electrification equipment. Again close co-ordination of the work will be needed to minimise cost and disruption.

Of the three Liverpool-Manchester routes the one chosen for electrification runs 32 miles from Liverpool Lime Street to Manchester Victoria via Huyton and Newton-le-Willows. Investment on the route is already planned to raise the line speed to 90mph and reduce the journey time between Liverpool and Manchester from 44 to 30 minutes.

The first phase of electrification will allow TransPennine Express services between Manchester Airport and Edinburgh and Glasgow to be operated by electric trains.

A smaller proportion of Britain's network is electrified than that of most other European countries





Currently diesels have to be used because the last 15% of the route, between the West Coast main line and Manchester, is not electrified. Existing diesel trains will be transferred to provide greater capacity on other TransPennine Express routes.

Completion of the second phase will allow electric services between Manchester and Liverpool by 2013, again using modernised four-carriage trains transferred from Thameslink.

Network Rail has already started detailed planning to put the work into effect, and is developing proposals intended to keep disruption to a minimum. The company's recent consultation document on electrification outlined a high output "factory train" system for working on straightforward stretches of line between junctions, which forms the bulk of the work.

Network Rail says this option "has been developed with suppliers to the point where there is confidence that the electrification work can be carried out within midweek night possessions and with the adjacent line open". The infrastructure company believes one tension length of wiring could be erected in a six-hour shift.

The train would consist of three piling or structures modules, each with two vehicles capable of operating as a piling or structures mounting wagon, and two flat bed wagons for carrying at least 15 piles or mast structures. The second module type would comprise a wagon carrying eight cable drums with manipulator arms for positioning earth cables relative to the masts, and a second wagon fitted with an elevated working platform to allow cables to be attached to the mast. Another wagon would carry a second platform and a crane.

A third module would consist of a wagon carrying four cable drums, with two manipulator arms for positioning contact and catenary cables, and two more wagons with access platforms. A final multi-purpose module with another access platform would allow any final pieces of work to be completed, with a measuring pantograph to collect "as-built" data.

For complex rail layouts at junc-

tions and some stations, which might account for at most 20% of the route, the high output train would not be able to work but some of its constituent modules could be used separately. Progress would be slower and more expensive but the aim would still be to carry out the work in blocks of no more than eight hours.

For route clearance work, to provide space between the wires and structures such as bridges, there would be some need for longer possessions for demolition and erection of new structures. But even this would generally "not require exceptional possessions" and could usually be planned to coincide with other work.

Passengers will first see the benefits on the Liverpool-Manchester line where work is expected to be complete within four years. On the Great Western line early work is expected to take place between 2012 and 2014 and the bulk of the construction over the following two years. Electric services will be introduced from London to Oxford, Newbury and Bristol by the end of 2016 and to Swansea by the following year.

Further more intensive analysis of costs and benefits is continuing on other routes identified by Network Rail, including the Midland main line and the routes from Manchester and Liverpool to Preston.

Generally reaction was that this was an important step towards bringing Britain's railways more in line with those of Europe, that the plan would play a valuable role in cutting emissions, and that it plugged a major gap in 2007's Rail White Paper strategy.

The South West Regional Development Agency said that its research showed that shorter journey times between the capital and Bristol could improve productivity by over 1% annually, potentially adding £120m to the surrounding economy.

Network Rail, which will fund the programme through additional borrowing, said the announcement should be just the start, pointing out that its own proposals, which fed into the DfT strategy, recommended electrifying the busiest 3,000 miles



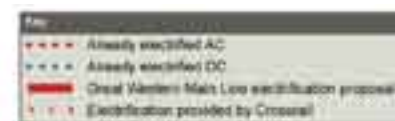
Electrification of Britain's railways

of non-electrified lines. Chief executive Iain Coucher said: "Today is a good start, but there is much further to go."

Stephen Joseph, executive director of the Campaign for Better Transport, said: "This needs to be the first step in a rolling programme, embracing urban and local rail services rather than just inter-city lines. The Government needs to get on with more infill electrification so as to connect places like Blackpool that are currently not on the inter-city network."



Proposals for electrifying the Great Western main line





# Annual Road Safety Conference

A safe new world?

Implementing the new road safety strategy

11 November 2009, Grand Connaught Rooms, Great Queen Street, London

The government has placed a strong emphasis on road safety by proposing challenging 2020 casualty reduction targets. Earlier this year, the government published proposals for a new post 2010 road safety strategy "A Safer Way: Consultation on making Britain's roads the safest in the world" which is due to be published later this year.

The proposals include reducing the speed limit on problem rural roads from 60mph to 50mph and making it easier for local authorities to reduce speed limits from 30mph to 20mph in urban areas with high accident rates. Councils would also be under pressure to cut the limit to 20mph outside all schools.

Recent statistics from the Department for Transport indicated that the number of people killed or seriously injured on UK roads also dropped by seven per cent last year to 28,567.

We are delighted that **Paul Clark MP, Parliamentary Under Secretary of State for Transport** will be giving the keynote address at this conference by focusing on the imminent publication of the Strategy.



## Key areas for discussion include:

- **Hear** the Minister's views on implementing the new Strategy
- **Does** the new Strategy go far enough?
- **What** impact do the Conservatives think they will have on road safety?
- **What** lessons can we learn from London's Intelligent Speed Adaptation trial?
- **Are** vulnerable road users really being protected?

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# A capital cycling revolution



A cycle hire scheme for London is on course to be launched next summer. It will have far-reaching effects on attitudes to cycling and city centre transport in general

Artist's impression  
Indicative location  
© TfL 2009

**L**ondon is on course to get a city centre cycle hire scheme next summer following the appointment of Serco as Transport for London's contractor to manage the system.

Subcontractor the Public Bike System Company will supply its Bixi bikes, as used in Montreal's existing scheme and another planned for Boston.

The last of 400 planning applications for the siting of hire stations was submitted last week, and around 200 have already been approved. Work will start on building the stations in the autumn.

Mick Hickford, head of special projects in TfL's surface transport division, says: "We're very excited about this. We think it will transform the centre of London. It will have a very different feel." The scheme will fulfil one of London mayor Boris Johnson's key pledges.

Serco's contract will be worth around £140m over six years, split between installation and operation of the scheme.

TfL began by conducting a feasibility study, looking at existing schemes in Europe, of which Paris's Vélib is the best known. It concluded that a

similar arrangement was eminently feasible for London, starting in the city centre, where there would be most demand.

The only city where cycle hire had not proved successful was Brussels, whose scheme had been on a small scale. "We concluded that there's a critical mass for a scheme to be a success," says Mr Hickford. Brussels has since relaunched its own system on a larger scale.

The London project will roughly cover the zone one fare area, with a few modifications to include the London Hospital to the east, and London Zoo, just outside the zone to the north. This 44km<sup>2</sup> area will have 400 hire stations. This density, based on the experience of Paris, equates to one roughly every 300m, so that it is never more than two or three minutes walk to a station. The system is designed for one-way journeys – you drop off your bike at the nearest dock to your destination.

On average there will be 26 docking points to a station, with a minimum of 16. There will be a total of 10,000 points for 6,000 bikes, a ratio of 1.7:1, which should mean that there is always a good chance of being able to park your bike wherever you want.

**We concluded that there's a critical mass for a scheme to be a success**

The target market is anyone making a journey of 1-8km. For less than a kilometre, says Mr Hickford, it will normally be quicker to walk, and for more than 8km it is likely to be quicker by other modes. It is expected that 40% of users will transfer from the Tube, 2% from car or taxi, a few from walking and some from bus. So there will be some reduction in crowding on existing modes.

There could also be health benefits, though these were not factored into TfL's plans.

The main rationale for the scheme, says Mr Hickford, is promotion or normalisation of the cycle. "Apart from encouraging cycle use directly, individuals may use their own bikes more. A lot of people have bikes in the shed they haven't used for a long time – this could persuade people it's not so difficult."

An average of 40,000 daily journeys, or 6.7 for each bike, is predicted, with a peak of 50,000.

Early in the day the market is likely to be commuters continuing their journey from rail stations; towards the middle of the day there is likely to be a significant proportion of tourists.

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Mr Hickford admits that it will initially be impossible to cater for all the demand from commuters at stations because of space constraints. There will be docking stations near rail terminals, but "to put in hire stations to cope with all the demand from the eight main line rail stations would need the area of 24 football pitches."

Users will have to register before hiring a bike, either online, via a call centre, or (mainly for tourists) on street at the hire points themselves.

The charging regime has yet to be finalised but the pricing tariff will be structured to encourage short hire periods. To cycle between the extremities of the zone either east-west or north-south will take around 30-35 minutes, and though there is nothing to stop bikes being taken outside the zone, people who want to hire a bike for a full day or half day would be better off going to a conventional bike hire outlet. So it is likely that there will be a late return fee after four hours, and a deposit of around £150 will be debited if a bike is not returned within 24 hours.

The feasibility study identified a number of concerns over the introduction of the scheme. One was safety. "People expect that more bikes will mean more accidents," says Mr Hickford. "But since 2000, cycling central London has doubled but accidents and injuries to cyclists have dropped by over 20%."

More money is being put into cycle training in the boroughs covered by the scheme (the whole of the City of London plus parts of eight others, and the Royal Parks).

There will be a general awareness campaign and training specifically targeted at bus and taxi drivers.

The whole scheme will go live at once in a "big bang" approach, albeit in summer when traffic will be lighter, because of the previously-identified need for critical mass. "Six thousand more bikes will increase awareness automatically," says Mr Hickford. "It's isolated bikes that

cause a problem."

The question of how much help with navigation and wayfinding is still being discussed with the boroughs.

Street improvements agreed with the boroughs where particular safety concerns have been identified, or to make navigation easier, are being put in hand now. This will include making some one-way streets two-way for bikes.

Security and theft is another concern. The bike design will be similar, though not identical, to that used in Montreal. The docking stations are designed so that bikes can't be levered out. Additional CCTV cameras will be provided in some locations. However experience in Paris is that after early problems, the number of bikes lost is in balance with the number recovered.

The bikes themselves will be in cycle hire livery; this, and the distinctive design in which all chains and cables are enclosed to prevent tampering, will make stolen ones fairly obvious.

The bikes will also be relatively heavy, because of the need for robustness. "They won't be an object of desire," says Mr Hickford.

Steps to be taken between now and next year's launch include getting planning permission for the remaining hire stations. Towards the end of October Serco will install the foundations at each site, leaving it clear for installation of the docks and terminal in spring.

The design and manufacture of the bikes has to be finalised and back office arrangements have to be set up – Serco is planning to include cycle hire in the services catered for by an existing call centre.

A taxi maintenance site on Penton Street near King's Cross will be taken over as the cycle maintenance site at the end of the year, and public information roadshows will be set up to tell people how to engage with the system.

This time next year, a cycling revolution should be under way.

# Nottingham

Nottingham looks set to achieve its ambition of introducing a workplace parking levy, after the city council's plans were confirmed by the Transport Secretary at the end of July.

Unless opponents seek to challenge the decision through a judicial review in the next few weeks, the way now appears clear for the levy to be introduced – although with a two-year delay to 2012.

The decision paves the way for the council to go out to tender on phase two of the Nottingham Express Transit tram system, for which the levy will provide most of the local 25% contribution.

The levy, which will apply to businesses with more than 10 parking spaces, is opposed by local employers such as Boots and the Derby & Notts Chamber of Commerce, though the business community is also broadly in favour of the tram extension.

The only major change made by the Department for Transport to Nottingham's proposals was to delay implementation by two years to avoid imposing an additional burden on businesses during the recession. The Government will provide an additional £13m in PFI credits, taking its contribution to £531m, to plug the shortfall this will create. Nottingham City Council will provide £149.5m.

City councillor Jane Urquhart welcomed the decision: "The delay is a pragmatic response to the economic situation. When we put the proposal together we didn't know what the economic situation would be when it was due to be introduced. We're pleased with the way the government worked with us so that it is financially possible to go ahead with the tram as originally planned despite the levy being delayed by two years."

The decision is the culmination of a ground-breaking process, making Nottingham the first authority to take advantage of powers introduced in the Transport Act 2000.

Workplace parking levies are now likely to be looked at more seriously by other councils, especially in the light of expected spending cuts, with Exeter and Milton Keynes thought to be among the candidates.

Nottingham was attracted to the idea of the levy as a quicker and less problematic method of creating a revenue stream than options such as

a congestion charge. Legal and public affairs firm Bircham Dyson Bell acted as consultant to the council, helping it to navigate through the legal process and work through issues such as what premises the levy should apply to, how to deal with premises with shared parking spaces, and exemptions and discounts.

Under the Transport Act a council can resolve to introduce a workplace parking levy and pass an order to bring one into force, but the order has to be confirmed by the Transport Secretary. With Nottingham's being the first, the process was further complicated by the fact that the levy had to comply with national regulations which did not yet exist. The Transport Act gave the secretary of state power to introduce regulations as secondary legislation but the DfT had delayed acting on this in advance of any concrete proposal to introduce a levy.

"So in parallel we had to discuss the national regulations with the DfT," says BDB partner Robbie Owen. However one of the firm's specialisms is in drafting statutory instruments and it was able to put its experience into effect to anticipate what form the regulations might take.

"At every stage of the process we had to check consistency with the Act as well as general law on fairness, and the obligation to consult. We wanted to ensure that it couldn't be brought down by a legal challenge, for example on the grounds of not consulting properly," says Mr Owen.

The legislation says the council may consult and may hold a public inquiry before introducing a levy. "A workplace parking levy had been a manifesto commitment for three successive council elections, so we considered there was no need for a public inquiry, but the council felt it needed to consult fully."

BDB devised a consultation strategy including a public examination chaired by a public inquiry inspector within a 12-week consultation period.

In the course of deciding whether to confirm the levy, the Secretary of State may also consult or hold a public inquiry.

Mr Owen says: "A key objective was that the council did everything necessary to avoid the Secretary of State having to do either of these. The objective was that he should merely have to decide whether or not



London's bikes will be similar to the Bixi design for Montreal



# levy shows the way

to confirm the order and with what details."

All this happened in parallel with the Transport and Works Act process: the public examination was held in October 2007, with the Transport & Works inquiry starting the following month.

The examiner reported to the council in December 2007, after which the council considered which of a number of recommended modifications to accept.

The council made the order in May 2008 to introduce the charge, and published a notice that it intended to apply for confirmation, inviting representations. These were passed on to the Transport Secretary. "We didn't want the DfT to think that the information provided by the council was in some way inadequate," says Mr Owen.

Confirmation took longer than expected, mainly because of delays in progressing the national regulations.

In the end, though there were a number of drafting modifications to harmonise the council's order with the national regulations, the only material change was the delay in introducing the charge.

Announcing the decision, transport minister Sadiq Khan said: "A fantastic coup has been pulled off. Large local businesses were complaining about the current economic climate – we've delayed the levy until 2012." He added that because the levy will only apply to businesses with more than 10 spaces, 85% of businesses will not have to pay.

Derby & Notts Chamber of Commerce head of policy John Dowson said: "The levy will create a lot more administrative and financial burdens on business at a time when, hopefully, the recovery will be under way. It will disadvantage local business compared to other areas, making it less attractive and competitive."

However others argue that the prospect of the tram outweighs any deterrent effect on businesses locating in the city. Glen Croker, chief executive of BioCity, an incubator for biotechnology firms, said: "I am pleased the tram is going ahead. It will help with congestion and it sends a positive message about Nottingham investing in the future."

The council is expected to resolve this month to implement the levy. People will be able to apply for



The city council has finally gained approval to go ahead with a workplace parking charge to fund its contribution to the planned tram extension. **David Fowler** looks at the hurdles it had to cross

**In a year's time we may have other local authorities saying we need to look at other ways of raising funding for transport**

licences for parking places under the scheme from July 2011. There will be a six-month dry run from October that year to March 2012 when it will be obligatory to have a licence but not to pay; the charge will be fully implemented from April.

Derby & Notts Chamber of Commerce has said it will continue to explore all avenues to oppose the levy, including a legal challenge.

An application for judicial review, in which the court looks at the way the decision was taken – whether it was lawful and whether it took into account material considerations – would have to be made promptly and within three months, meaning in practice by mid-October.

BDB's Mr Owen says: "You can't challenge just because you don't like the decision or because you think there should have been a public inquiry," Mr Owen says. "Judicial

review is a high hurdle and even if successful it would only mean the DT would have to consider the decision again – it could still decide to confirm."

The council is now free to go out to tender for the tram operating concession on the basis that the levy will provide most of its share of the funding. Financial close is planned for 2011.

A number of councils which have been watching from the sidelines may now decide to go ahead with similar proposals, he believes.


"When they see this can provide £14m a year in local income in difficult financial times it will look quite attractive," he says. "In a year's time we may have a number of local authorities saying we do need to look at other ways of raising funding for transport. A chill wind is starting to blow."

**The workplace parking levy will help to fund a tram extension and redevelopment of Nottingham station**

# Eurostar confirms management changes

 Eurostar has confirmed plans for senior management changes which will take place in early 2010. **Richard Brown**, chief executive since 2002, will step up to become non-executive chairman of Eurostar, replacing **Guillaume Pepy** who has held that position since 1998 and who became president directeur general of SNCF (French Railways) in February 2008.

**Nicolas Petrovic**, currently chief operating officer, will take over as chief executive. The planned changes are expected to coincide with the 'go-live' date for the single Eurostar company at the beginning of next year, replacing the current joint venture between SNCF, Eurostar UK Ltd (owned by London & Continental Railways) and SNCB (Belgian Railways).

 **Rick Haythornthwaite** has taken over as chairman of Network Rail following **Sir Ian McAllister's** departure. Sir Ian



announced last October that he would step down at this year's AGM, and Mr Haythornthwaite was announced as designate chairman earlier this year.


Mr Haythornthwaite was CEO of Invensys from 2001 to 2005, leading the rescue and restructuring of the £7bn a year turnover company. He was also group chief executive of Blue Circle Industries and spent 18 years with BP in various senior roles.

 AECOM has made a number of new appointments to its rail engineering team. **Iain Court** joins as director, bringing with him 25 years of experience, specialising in overhead line design and construc-

tion, project management, general construction, civil engineering and permanent way. He will be taking on the role of project director for new commissions and working closely with Network Rail, TfL and contractor clients. He was previously a director at White Young Green Rail.

**Pak-kin Tse** is an associate director, with responsibility for business development and project delivery of a range of rail-related projects including major stations and property developments in a rail environment. He has nearly 40 years' experience in the design and project management of major civil and structural engineering projects in the UK and Hong Kong.

In addition, **Jon Hall** joins as regional director, and **James Howles** as a project manager with a particular focus on Network Rail enhancements.

 **Darren Laurie** has been appointed director for the transport market in Mouchel's management consulting business. His

role will involve developing the company's transport market by shaping new business propositions and developing strategic relationships with key clients.

For the past four years he was responsible for business development in the transport sector for Atos Origin UK. Prior to this, he held business development roles for Steria and Siemens.

 TTR has announced the relocation of **Chris Douglas** to its London office, to strengthen the company's sustainable transport and smarter choices team. He adds his expertise in the field of delivery and servicing plans and freight quality partnerships to the existing team of travel planning and smarter choices experts. Mr Douglas was formerly manager of the Department for Transport's Freight Best Practice programme, and a regional policy manager for the Freight Transport Association.

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