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WINTER 2024

INFRASTRUCTURE INTELLIGENCE

## **Welcome** to the first issue of our *Infrastructure Intelligence* magazine

This new publication is taking a deep dive into a vital sector, one that is shaping the built environment across our country.

Today we turn the spotlight on the Future of Transport – the people, projects and policies that are determining the way we travel.

From modernising roads and rail to the impact of climate change on infrastructure and the need to find cleaner, greener ways to get from A to B, we explore them all.

The Future of Transport has never been more important.

Government has identified transport as a key priority to drive investment and deliver growth.

The Department for Transport's Integrated National Transport Strategy will set the high-level direction for how transport should be designed, built and operated in England over the next 10 years.

Plus, all eyes are on the spring and the government's Spending Review, which is likely to determine both the priorities and the pace of development for transport.

Today we speak to some of industry's key players and take a closer look at the projects that are shaping transport for all.

Keep up to date with all the latest Infrastructure Intelligence news at acenet.co.uk/news/infrastructure-intelligence



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## CAN GOVERNMENT DELIVER **TRANSPORT IMPROVEMENTS** FOR THE LONG TERM?

### THE NEW LABOUR GOVERNMENT HAS PUT TRANSPORT INFRASTRUCTURE AT THE HEART OF ITS PLANS TO GROW THE UK ECONOMY

This includes improving performance on the railways, driving forward rail reform, improving bus services and growing usage across the country – plus delivering greener transport.

Transforming infrastructure to work for the whole country, promoting social mobility and tackling regional inequality as well as better integration of transport networks are also on the government's agenda.

Within weeks of the general election, the government announced the previous administration had left a £22bn public spending gap in 2024 alone – £2.9bn of which was unfunded transport commitments.

An internal review of the Department for Transport's (DfT) capital spend portfolio was announced.

Industry awaits the results of that review.

At the end of November, the government set out its vision for the first Integrated National Transport Strategy in more than two decades. It will set out how government can support local areas to make all forms of transport work together better. Regional roadshows will be hosted around the country to hear more from local leaders, transport operators and passenger bodies, as well as taking feedback from the public, to hear how to best deliver integrated transport.

The Autumn Budget saw chancellor Rachel Reeves confirm government will fund HS2 tunnelling into Euston station, ensuring the line runs to the centre of the capital rather than ending at Old Oak Common in west London. Action has also been taken by government to control the cost of HS2 and bring the project back on track.

Bus services have received £1bn of funding to support routes across the country until 2026, with the Buses Bill set to empower local leaders to take control of services. The government has introduced a Bill to take passenger train operations into the public sector, with Great British Railways (GBR) set to plan services on a whole-system basis.

Announcements have been made on a new National Infrastructure and Service Transformation Authority (NISTA), which will support the development and implementation of the 10-year infrastructure strategy in conjunction with industry. Plus, an Infrastructure Taskforce has been launched.

And all eyes are now on the spring and the multi-year spending review.

A DfT spokesperson said: "Transport is an essential part of our mission to rebuild Britain and will play a key role in unlocking our economy.

"Legislation to introduce much-needed bus reform and bring rail services into public ownership is already making its way through parliament, and we remain committed to delivering greener transport, including the phase-out of new cars that solely run on petrol and diesel by 2030." II

# WHAT DEVOLUTION MEANS FOR TRANSPORT INFRASTRUCTURE



LAURA WRIGHT, INTERIM POLICY DIRECTOR AT THE ASSOCIATION FOR CONSULTANCY AND ENGINEERING (ACE) AND ENVIRONMENTAL INDUSTRIES COMMISSION (EIC), CONSIDERS HOW DEVOLUTION COULD IMPACT TRANSPORT DEVELOPMENT

Devolution is back on the agenda in a big way.

In September, the new Labour government announced its intention to deliver full devolution across the North with deals for Hull and East Yorkshire, Greater Lincolnshire and Lancashire.

Once devolution agreements are in place across the country, more than 60% of England will be covered by a devolution deal of some kind.

An English Devolution Bill was announced in the King's Speech, which will confer greater powers on the regions, including the already ambitious Metro Mayors.

The existing mayors are going to be asked to develop Local Growth Plans to help drive growth in their regions.

So, what does this mean for transport infrastructure?

Transport infrastructure is a key component of driving regional growth – and we know that Metro Mayors are keen to have an increasing say and control over the strategy and budget for delivering infrastructure.

Budgets will be made available for devolved areas for transport and local political leaders will be keen to invest and improve their transport services and connections. Doing so will be essential for growth.

However, there are some risks with devolved transport infrastructure control and budgets.

There is a risk that transport infrastructure investment becomes disjointed and parochial.

Transport infrastructure is a system and its users – be that passengers or freight – cross administrative boundaries. It will be essential that regions work together so as not to lose sight of the bigger picture.

They must consider how their investments leverage and connect to infrastructure outside their region.

Another oversight layer of administration to ensure this happens is probably wasteful.

The issue may be best addressed through instilling a culture of cooperation between politicians and officers with responsibility for transport.

The government is re-nationalising rail and putting in place a new "directing mind", Great British Railways (GBR), whose powers will include managing and enhancing the rail network.

A centralised body seems at odds with greater devolution, and it could conflict. Mismatching plans could be a barrier to good decisions being made on rail infrastructure.

It will be important that GBR's regional management are well aligned with political regions and GBR is willing to defer to devolved wishes where this is appropriate. To achieve this, clear incentives may need to be put in place within GBR.

Non-devolved areas could lose out, with policy and financial focus going elsewhere.

This could result in degraded infrastructure and connections outside the strongest regions.

One solution is to mandate that Local Growth Plans must consider the areas to which they connect and the ripple effect of benefits to adjoining areas.

Last, but not least, freight infrastructure may lose out.

Political leaders use strong rhetoric about passengers being number one.

"They must consider how their investments leverage and connect to infrastructure outside their region." Freight doesn't vote and is at risk of being the poor relation, especially as powers are devolved closer to local elected officials.

Degradation in freight infrastructure would have negative impacts for the environment, road congestion for all and the economy.

Regions should be incentivised to consider these wider benefits of improved freight infrastructure (and mode shift) in their plans, and it is important that they become adept at selling these benefits to voters.

Devolution offers an opportunity to make decisions on transport infrastructure closer to the communities who use it most.

Local bottlenecks could be fixed and plans tailored to regional variances. However, the regions must not retreat to their bunkers, become parochial and lose sight of the parts of the country to which they are connected.

Holistic decision-making, a culture of cooperation and aligned incentives will all be important to getting the most out of our local and national transport infrastructure in the future. II

# DRIVING DEVELOPMENT FOR THE FUTURE



WITH THE NEXT ROAD INVESTMENT PERIOD JUST AROUND THE CORNER, NICK HARRIS, CHIEF EXECUTIVE OF NATIONAL HIGHWAYS, TALKS EXCLUSIVELY TO INFRASTRUCTURE INTELLIGENCE ABOUT THE ROUTE AHEAD FOR ENGLAND'S ROADS

With a new government in place and the third Road Investment Strategy (RIS) period imminent, National Highways' chief executive Nick Harris says plans for infrastructure have a key role to play in supporting the country's growth and development.

Managing all 4,500 miles of England's strategic road network (SRN), National Highways looks after the vast network of motorways and major A roads at the core of the country's transport system – and where four million journeys take place every day.

The third Road Investment Strategy

period (RIS3) is due to be announced in the spring as part of the government's spending review.

It will explain the government's aims and proposals for investment in the strategic road network from 2025 to 2030.

The government launched the RIS in 2015, followed by a second strategy period beginning in 2020 – which is due to come to an end in March 2025.

But Harris says it's not just the budget that matters, it's working with the

new government, planning for the long-term future and working on key areas such as decarbonisation and skills that will really make a difference.

While continuing to improve the country's roads, its capacity and the environment, Harris says it's important for National Highways to "turn up the dial" in other areas of key importance to the new Labour government – such as kick-starting the economy and housing development.

"Our challenge is demonstrating alignment with the new government," he adds.

With RIS2 just months away from completion, National Highways is turning its attention to the next period – and beyond.

"RIS2 finishes in March; our focus has got to be on meeting the commitments we've made for this period," says Harris. "We've got to finish well and demonstrate delivery."

That period has seen renewal of 4,660 miles of asphalt and 1,000 miles of barriers, the renewal of 170 major structures, 50-plus road schemes opening and £14.2bn spent on new road schemes.

"When people talk about RIS3 they're talking about the funding. And yes, that matters.

"But what's more important is the long-term planning for what we want to do as a sector – to provide capacity, journey reliability and safer journeys.

"That planning isn't affected by the funding discussion. The funding is

really a question of how fast we can execute those ambitions.

"It's important there's clarity between the way we work together as a sector to plan and the way we have a conversation with government about how we fund that."

He adds: "We've welcomed the new Labour government and we are working well with them.

"And we're going through a process of revisiting the work we've already done on the network in the period.

"The government will have a multi-year spending review in the spring, so we are working with them on our plans for the next five years.

"I'm completely confident that this government absolutely supports a multi-year settlement.

"They see that as the way to drive the right outcomes, the right delivery, more efficient delivery, certainty that the

"That planning isn't affected by the funding discussion. The funding is really a question of how fast we can execute those ambitions." sector needs – so I fully expect to see that in the spring."

Harris says National Highways has much to be proud of in the current five-year period.

#### **People and skills**

As well as a raft of new schemes, upgrades and maintenance, he says bringing new talent into the sector has been a big win – with 10% of its workforce now "early talent" – be that graduates or apprentices. Its Roads Academy, a joint initiative with the roads industry to develop current and future leaders and solve sectoral challenges, is also helping bring new people into the industry.

"There's things to be happy and proud of," says Harris, "but this industry is all about people, and that focus on and investment in the next generation is one of the things I'm most proud of."

He said since his appointment eight years ago, National Highways has made a shift to seeing its wider purpose.

"We were once very civil engineering orientated, all about potholes and opening roads.

"We still talk about those, but also our purpose, how we support the economy of the country and the decarbonisation story and how we become a force for good in biodiversity."

National Highways spends between £4.5 and 4.8bn a year. Around £1.4bn is operational expenditure, another £1.2bn is capital renewal, it looks after 11 DBFO contracts (design, build, finance and operate) including the M40 and the M25 – plus around £2.5bn goes towards big projects.

#### Lower Thames Crossing

Major projects include those such as the Lower Thames Crossing. In October the government announced it was extending the deadline for a decision on the application by National Highways under the Planning Act 2008, for the A122 (Lower Thames Crossing) Development Consent Order to 23 May 2025 to "allow more time for the application to be considered further, including any decisions made as part of the spending review".

"There's still going to be a question mark over exactly when some of the larger schemes might start in the next five years and we'll get more clarity on that in the spring," says Harris.

"With Lower Thames Crossing there's different kinds of uncertainty about a project like this. The contracts are all in place, so there's no doubt about who is going to do the work – the question is when.

"The decision to postpone granting of the planning will have an impact on progress, but there's design work to be done, utility work to be done in advance and many of those things will continue. The challenge is maintaining the momentum.

"The decision in the spring will bring some clarity, but what will be announced will be a funding envelope and it won't necessarily be an announcement of what's being built and when. "That will follow later in the year as we work through our plans."

#### The long-term view

With many in the built environment sector calling for more pipeline certainty for industry, Harris says the longer-term view that government now has, and its more long-term policy thinking, is "incredibly helpful".

"We can align much more easily with that," he said. "The government has talked about bringing consistency and stability and those will be very welcome.

"I think feeding effectively into the multi-year spending review is incredibly important, because that is going to set the tone and direction not just for the next five years but for the next 10 years.

"You can't just look at the next five years; you have to look at the five after that and the five beyond those. You've got to look at multiple five-year periods.

"The spring is going to be important. But it feels right to have an infrastructure review and infrastructure strategy that is cranking up now. Government is carrying out a capital review in the Department for Transport, plus all the work going on with Network Rail and HS2 – it will all have to come together and inform how infrastructure is going to support the country." II

#### DECARBONISATION CONTINUES TO BE A KEY PRIORITY FOR NATIONAL HIGHWAYS

The organisation has set itself important targets – net zero for its own operations by 2030, net zero for maintenance and construction by 2040 and net zero carbon travel on its roads by 2050.

Current progress includes 95% of its network being within 20 miles of an electric charge point, plus in 2022 National Highways became the first major roads organisation to achieve the globally recognised accreditation for its commitment and ambition to cut carbon – PAS 2080.

Nick Harris, chief executive of National Highways, says: "Decarbonisation is important for us. There isn't a bright future for transport or roads unless all modes of transport can solve this and we're focused on our own carbon emissions around maintenance and construction. And we're making great progress there.

"The Lower Thames Crossing has gone into contract with at least a 50% reduction in carbon emissions against the baseline that was established for similar projects. Environmental sustainability is also key – recognising we have a network, but it's also a network for supporting habitat biodiversity."

He added: "We have a very clear way of looking at things; these aren't just add-ons. We don't design a road scheme and then think about the environment. First of all we ask ourselves: 'Do we need to build anything?' or can we improve on what we have – and only at the end of that process do we build something.

"Then it's: 'Can we build in a way that's consistent with decarbonisation to promote a sustainable environment?' Increasingly it's the way we work."





#### NATIONAL HIGHWAYS CONTINUES TO KEEP THE COUNTRY MOVING WITH IMPROVEMENTS TO ITS NETWORK

#### Recent achievements include:



**M25 Junction 10** Work to improve the busiest junction of the M25 has taken huge strides forward, with two new bridges put into place and new access arrangements for the A3.



Southbound M6 Junction 22-21a

Work to open an extra lane in each carriageway of the M6 between Warrington and Wigan has now been completed – helping to improve journey times and reliability for the tens of thousands of drivers who use the route daily. The latest work is part of a £260m motorway upgrade which started in March 2021.



#### A303 Somerset

The multi-million-pound Sparkford to Ilchester project has seen a 3.5mile section of single carriageway upgraded to a dual carriageway and has included the building of three new junctions.



#### A38 Saltash Tunnel

A £25m refurbishment is being carried out on the 410-metrelong, 36-year-old Cornwall tunnel. Carrying 40,000 vehicles a day, upgrades include electrical distribution, new LED lighting, fans and electronic signage. The project will take a year to complete.



#### M1 West Yorkshire

The first phase of safety barrier improvements was completed three months ahead of schedule in October. National Highways is replacing the wire rope central barrier with a concrete one between junctions 47 and 43. The first phase, between junctions 46 and 47, began in March and has now been completed. The second phase, between junctions 43 and 46, started in August and is due to be completed in spring 2025.

# HS2 A PROGRESS REPORT

### HS2 – IT'S UNDOUBTEDLY A PROJECT THAT'S DIVIDED OPINION

From criticism over cost and timescale to support for its impact on economic growth, employment and capacity, the mammoth infrastructure project has been making progress since construction began in September 2020.

But how has the high-speed investment been shaping the landscape in recent months?





#### October:

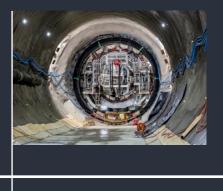
Action to control the cost of HS2 and bring the project back on track is announced by government – which is also reinstating ministerial oversight of the project to ensure greater accountability.

#### October:

HS2's Interchange Station in Solihull takes a step forward after 15 colossal bridge beams are lifted into position. Hoisted into place onto existing abutments and piers using a 650-tonne crane, the concrete beams form the "building blocks" of a road bridge that will take vehicles over the high-speed railway and onto the station car parks.

#### October:

HS2 lays the foundations for Birmingham's new rail hub – Curzon Street station, Work starts on the 2,000 underground foundation columns that will support the flagship station.







#### October:

Chancellor Rachel Reeves confirms the government will fund HS2 tunnelling into Euston station as part of a series of transport announcements in the Budget. The move will ensure HS2 runs into the centre of London rather than ending at Old Oak Common in west London.

#### November:

It's announced more than half of the concrete needed for HS2's West Midlands structures has been poured – measuring one million cubic metres. A total of 1.9 million cubic metres is due to be used on the 90km stretch.

#### November:

HS2 names the teams that will deliver the project's track, signalling, communications and other systems. Over the coming years, the successful companies will first design and then install around 280 miles of track capable of speeds of up to 225mph (360km/h), as well as the power supplies and signalling equipment required for the safe operation of the railway. The £3bn "rail systems" contracts have gone to Ferrovial Construction / BAM Nuttall JV, Colas Rail, Hitachi Rail GTS UK and Telent Technology Services JV, and Siemens Mobility.





#### December:

Mark Wild joins HS2 Ltd as the company's new chief executive. Wild, former CEO of Crossrail, will help oversee the project's transition from a major construction programme to a working railway, with a renewed focus on controlling costs.

#### December:

Engineers begin assembling two giant tunnelling machines that will dig the final 4.5 miles of underground high-speed railway – carrying HS2 trains into the heart of London. Each of the tunnel boring machines (TBMs) will launch from an underground box at one end of the project's Old Oak Common station. They are expected to take around one and a half years to reach the railway's final southern terminus at London Euston.

## WHY BIRMINGHAM IS 'BUILDING BEYOND THE RAILWAY'



CRAIG WAKEMAN, HEAD OF HS2 AND STRATEGIC PARTNERSHIPS AT THE WEST MIDLANDS COMBINED AUTHORITY, TALKS TO *INFRASTRUCTURE INTELLIGENCE* ABOUT THE HIGH SPEED RAIL PROJECT'S IMPACT ON THE REGION'S PEOPLE, PLACES AND ECONOMIC POTENTIAL

The impact of HS2 on the West Midlands is obvious to see.

Major work is under way on new structures and stations – with thousands of people now employed on the vast infrastructure project.

But it is more than that.

The economic and social ripples are being felt across the region and beyond in terms of wider plans and infrastructure investment for the long term.

Craig Wakeman, head of HS2 and strategic partnerships at the West Midlands Combined Authority, said: "We've seen the early works for HS2 completed with main construction now under way.

"We are starting to see what the future landscape – the cityscape of Birmingham – will look like.

"And, encouragingly, discussions we're now having with HS2 are around completion."

Wakeman became involved with HS2 back in 2011.

"All these years later to be talking about completion on what is the biggest infrastructure project in Europe is very exciting."

Wakeman says the region's mantra has always been "from beyond building a railway".

"The government decided to build the

railway and the question for us has always been how do we as a region capitalise on that and support other regions in doing the same?" he adds.

A report produced for HS2 and the West Midlands Growth Company by Arcadis back in February 2024 – From Trains To Cranes – gave an insight into the impact HS2 has had on the region.

Analysis suggests HS2 and the associated development it will bring will deliver an economic uplift of £10bn over the next 10 years.

Within the project's three impact zones, it is estimated HS2 will be responsible for the generation of 41,000 additional homes, 704,000 square metres of new floorspace and 30,835 new jobs.

HS2 in the West Midlands is seeing the creation of Birmingham Curzon Street station, Interchange station in Solihull and the Network Integrated Control Centre and depot in Washwood Heath.

"We have 9,500 people working on HS2 in the region, including 600 apprentice starts," adds Wakeman.

"But this project has always been about the wider impact and what the regions are doing to connect communities. Which is why we put together a HS2 connectivity package to capitalise on the work of high speed rail."

And that impact has already been seen.

It has brought about the expansion of the West Midlands Metro with the go-ahead

given to extend the network into the Black Country in Dudley and to the Merry Hill shopping centre.

The metro will also connect to HS2 Curzon Street station.

Train stations have been refurbished, such as Perry Barr and University, new stations proposed for the Black Country and ambitions to bring disused lines back into play in areas such as Moseley and Kings Heath.

Wakeman says messaging around HS2 has not always helped its cause – or made the positive impact as clear as it should be.

"It's not about the high speed, the getting there a bit quicker, that matters to people," he adds.

"Huge new commercial developments are being created because of HS2; it is attracting people to the region, helping us with graduate retention and employment opportunities. That is where the concept of HS2 has been ill conceived. It is these things that really matter to people.

"And if HS2 releases capacity on the West Coast Main Line it allows us to create pathways for freight, helping take pressure off the congested M6. That then improves journey times and reduces emissions.

"All that make the region an even more attractive investment opportunity. It's a win-win. The benefits created by the project are huge."



## WHERE WILL THE Route go **Next?**

On 4 October 2023, last year, then prime minister Rishi Sunak announced the scrapping of the northern leg of HS2 – which would have connected Birmingham with Manchester and Leeds.

But a new report has revealed plans for a rail link between the Midlands and the North-west, "at a far lower cost" than the cancelled HS2 northwards phase.

The Mayors of Greater Manchester and the West Midlands commissioned a private sector consortium to review the role of enhanced connectivity in catalysing growth, skills and jobs across the cityregions, and to explore opportunities for greater private sector involvement in delivering and financing new solutions.

The review was chaired by infrastructure expert and former HS2 chair Sir David Higgins and led by Arup alongside a private sector consortium of Addleshaw Goddard, Arcadis, Dragados, EY, Mace and Skanska.

The report found that a new 80km Midlands-North West Rail Link (MNWRL) should be built, in stages and in partnership with private investors to provide the capacity and connectivity benefits of HS2, but "at a far lower cost".

The link would connect towns and cities across the Midlands and the North,

providing critical capacity and better service for passengers and freight across the UK.

This new report says "doing nothing" on this corridor is not a viable option, from either economic or operational perspectives.

Plus, the MNWRL has the potential to connect towns and cities such as Leeds and Bradford, which is a critical connection for enhancing capacity for passengers and freight in the UK.

"From the moment Rishi Sunak made the announcement cancelling the northern leg of HS2 we knew that we needed to do something, not just as a region but as a country," says Craig Wakeman, head of HS2 and strategic partnerships at the West Midlands Combined Authority.

"The private sector came together very quickly after the 4 October announcement and there was universal condemnation of the decision to scrap the northern leg.

"Support for the plan has been unwavering."

The report came out in September and is now with the Department for Transport.

It is hoped a steering group will be established with the consortium, DfT, HS2, mayoral authorities and strategic stakeholders along the route proposed to discuss the plans in detail.

"Our railway is 150-plus years old," adds Wakeman. "This gives us an opportunity to start putting in place the things needed to continue sustained growth over the next 100 years. This is key infrastructure we desperately need.

"And this is only one bit of a much bigger strategic requirement for transport in the UK."

Former HS2 chair, Sir David Higgins, said the plan aimed to get connectivity between the Midlands and the North-west "back on track".

"We don't pretend that solving the rail challenges between these two places will be easy. We know it will be hard graft.

"What we need now is for the new government to work together with the business community and combined authorities – take the practical steps to make a new rail link a reality.

"We have conclusively shown that a new line can be built cheaper and faster – we now need to get on and deliver it." II

# TRANSPORT PLANNING FOR THE FUTURE



BURO HAPPOLD'S ASSOCIATE TRANSPORT PLANNER, MARK GILL, EXPLAINS WHY WE NEED TO PLAN FOR A GREENER, LESS CAR RELIANT, FUTURE

Could you live without your car? It's becoming a big question for all of us as work continues to decarbonise the transport sector and hit targets for net zero.

At the end of June 2023 there were 41.2 million licensed vehicles in the UK, an increase of 1.3% compared to the year before. And according to government figures, there were 851,000 licensed zero-emission vehicles in the UK, up 57% on 2022.

Transport remains a huge source of carbon. So, is removing our reliance on the car on our driveway the key to tackling climate change?

Mark Gill, associate transport planner with Buro Happold, thinks it is.

"The car is something we've become dependent on – but if we can find a seductive mode of travel or inclusive urban plan that is good for the planet and people's health, demand for private cars and vehicle trips will fall.

"With fewer cars on our roads we have the ability to transform our cities because road infrastructure becomes a stranded asset." Gill says demand for private cars is plateauing, but there are still many challenges.

Air and noise pollution and CO<sub>2</sub> emissions have an impact on our environment. Plus, traffic causes congestion, and risk of accidents and busy roads are holding people back from making the shift to nonmotorised forms of transport.

"If we can get cars out of the street it completely transforms how people may move in the city in terms of how they perceive streets and their safety within them. We did live without cars in the past – and we can do it again.

"If you put a major highway through communities, the complexity and the cost involved in creating connectivity are immense. So now we have an opportunity to rethink how we do road infrastructure and what that means in terms of cost, livability and connectivity."

Gill says transit-oriented development (TOD) – a planning strategy that aims to concentrate jobs, housing and services around public transport stations – has seen successes such as the redevelopment of Kings Cross in London. "We can see momentum is going the other way," he adds. "I think it's a really exciting time because we are at this shift in terms of designing cities not around the car – so there are a lot of opportunities for us to shape how people move and live in cities of the future."

"There are a lot of reasons why many of us choose to travel by car – it might be easier when traveling with a family, maybe it feels safer or you can travel whenever it suits you.

"The conventional approach to the issues has included transit-orientated development, active travel, electric vehicles along with regulation, government policy and multimodal transport plans," explains Gill.

"There's some great work being done with active travel – but it's not practical for all people or all trips so it's only part of the solution. EVs are only as sustainable as the energy grid that powers them.

"So, I think we're at a precipice where we can really challenge cars within the public realm, and we don't want to miss that opportunity. "If we can squeeze that part of the picture – our use of cars – and invest more in electric vehicles, public transport and active travel, it can work. Places like Copenhagen and Vienna have achieved a very low car motor share of 26%.

"We want to see demand for cars collapse naturally, giving us the opportunity to replan our urban and rural centres.

"The alternative is around smaller vehicles, car sharing instead of owning a car, maybe a different type of vehicle and mobility hubs providing 24/7 access to shared vehicles and pooled trips. And by taking cars off the street, we improve the walkability of neighbourhoods.

"We're not going to get to our net zero targets quickly enough if we carry on using the conventional approach to solving this problem.

"People want to be able to walk around the place where they live and work – when it comes to design it's about reducing the hostility of streets, making areas more enjoyable for people to socialise in and to walk through, then a lot of trips will convert from being car trips to walking or active travel trips." II

Buro Happold is working on transport and mobility projects across the UK – and the globe.

Schemes in London include helping Transport for London maximise land assets around its railway stations as part of a new property partnership scheme, pictured.

It is also involved with the Vauxhall Cross Island regeneration project in London. Designed by Zaha Hadid Architects, the site is within the Vauxhall, Nine Elms and Battersea (VNEB) Opportunity Area. Endeavouring to create a town centre that is welcoming to pedestrians and cyclists, Transport for London (TfL) and Lambeth Council looked to change the Vauxhall gyratory system into a two-way street. Vauxhall Cross Island is central to this enhanced infrastructure, the fabrication of which involves close collaboration with TfL.



### TRANSPORT PLANNERS DEBATE CAR USE REDUCTION

Industry professionals and parliamentarians analysed the principles, policies, practicalities and politics of reducing car use in the UK at the Transport Planning Society's annual conference in London recently.

Chair of the Transport Planning Society, Ben Plowden, said: "If we are to reduce car use in the UK, governments and transport planners will need to overcome some practical challenges and consider the costs and benefits to everyone of implementing such policies in a sustainable and equitable way, as well as overcoming concerns about the practicalities in areas that are currently poorly served by public transport.

"But above all, we need to think about how to frame the issue of car use reduction so that it makes sense to people outside the transport planning profession.

"We need to emphasise the huge social, economic and environmental attractions of a world in which people didn't need to use a car – if they have one – to do the things they need and want to do."

Minister for the Future of Roads, Lilian Greenwood MP, added: "We need to work in partnership to reflect a shift in thinking. From the purely reactive to the vision-led.

"We can create a system that serves our communities, fuels our economy and safeguards our environment.

"We can build a transport system not just fit for the future but one that inspires it. And we can – if we work together – deliver the viable, reliable and desirable alternatives to car dependency."

Ed Downer, transport and mobility associate at Buro Happold, said encouraging a reduction in car usage needs to start "with us as transport planners".

He added: "We need to be bold and lead by example, advocate for change and challenge the mainstreaming of car-centric policy and development.

"This means planning sustainable and inclusive transport that engages and understands the challenges of those who are more dependent on cars and supports people through change."

The Transport Planning Day event was held at the Institution of Civil Engineers in London on 11 November. It was attended by more than 150 industry leaders, academics and emerging professionals from across the UK, showcasing the essential role of transport planning in improving everyday life and commending excellence in the field.





# LOCAL SERVICES IN THE HANDS OF LOCAL PEOPLE – WHY ITWORKS



AS THE GOVERNMENT LOOKS TO DEVOLVE MORE POWER TO THE REGIONS, DAVID POWELL, PROGRAMME DIRECTOR – ROLLING STOCK AT LIVERPOOL CITY REGION COMBINED AUTHORITY, EXPLAINS HOW THE AREA HAS BEEN LEADING FROM THE FRONT FOR MORE THAN TWO DECADES

Devolved power is high on the government's agenda.

More control is being handed to more areas of the country – with decision

making and finance coordinated by people in the local area.

But when it comes to transport, it is something Liverpool has been putting

into practice for more than 20 years.

Management of the Merseyrail Electrics services was devolved from the Department for Transport (DfT) to Merseytravel back in 2003.

And David Powell, programme director – rolling stock at Liverpool City Region Combined Authority, says it is a decision that has brought better services, major investment and direct ownership of bespoke rolling stock.

"Back in the 1990s train contracts were managed by the DfT, but in Liverpool people were saying: 'No, we think we can manage it better ourselves.'

"The case was presented to government and accepted – so in terms of devolution in transport we went first.

"And on the whole, I think it's a decision that's been a real success.

"We are the most punctual operator in the country and also generally top for passenger satisfaction. The performance of the railway has been much better since we've been locally managed." Apart from the London Overground and national railways in Scotland and Wales, UK railways are still overseen by the DfT.

Very much like a metro system, Liverpool's Merseyrail network covers 70 miles across 70 stations and operates 600 regular services per day, every 15 minutes.

It stretches out to Chester in the south, Southport in the north and spans the Mersey east to west – making connections with the city centre's four underground stations.

Powell says "local knowledge is key" to running a service that ticks all the boxes for rail users.

And that local control has driven both investment and innovation.

In 2019, a mammoth £30m infrastructure project was completed to rebuild 100 platforms to enable level boarding across the network.

And roll-out of a new Class-777 train

fleet on the network was completed in 2024. The Combined Authority purchased the 52-strong fleet from Swiss manufacturer Stadler as the centrepiece of the £500m programme of works.

This has included the UK's first seven battery-powered trains, which now run from the new £80m Headbolt Lane station in Kirkby.

Innovation and ambition have opened the door to further network expansion.

"We've gone first again with the batterypowered trains; lots of other people are now looking at them," explains Powell.

"They replace diesel with electric without having to invest in the electric infrastructure. They take carbon footprint down by 80%, are quieter and save money.

"We are now looking at spreading electric battery trains further and actively looking at lines from Liverpool to Wrexham via Bidston and Warrington via Daresbury. More could follow."



He adds: "The fleet has been well received by the public, but there is still work to do on reliability. But this is a brand-new design of train."

Powell says level boarding was the number one concern for passengers using the network.

The rebuilding of platforms combined with "intelligent" sliding steps integrated into trains now means every door on every platform provides level boarding for travellers.

"Sliding steps on trains are intelligent, with an ultrasonic system that looks for the platform when the train stops," explains Powell.

"It's a huge benefit to passengers; it's what they have noticed the most.

"In the past you'd have to prearrange to have someone with a ramp to get passengers on and off. "Now we have wheelchair users who can be totally spontaneous and travel around the network whenever they want to.

"We want more people to use the train, as well as seeing those who couldn't use it before travelling with us. of what can be achieved.

"There's a lot more we could be looking at," he adds. "Particularly working with our counterparts in Manchester and looking at what could be done with transport in the Northwest in the future – we're just getting

### "The fleet has been well received by the public, but there is still work to do on reliability. But this is a brand-new design of train."

"We've seen patronage growth with the new fleet and we are now at pre-Covid levels for passenger numbers, which is great."

Government is continuing to deliver devolution across the country, with the transfer of powers and funding from national to local government, and Powell says Liverpool is proof going with that and it's really exciting.

"We want to improve capacity at Liverpool Central Station – if we want to grow the railway we have to grow capacity.

"And we will always share what we've done with other public bodies. If we can help, we will." II



#### A PACKAGE OF MEASURES TO EMPOWER LOCAL LEADERS TO TAKE CONTROL OF THEIR BUS SERVICES HAS ALREADY BEEN UNVEILED BY THE GOVERNMENT

The Buses Bill, which was laid before parliament in September, will give all local transport authorities across England new powers to run their own bus services – powers previously limited to mayoral combined authorities.

The move means local leaders across the country can deliver services in ways that suit the needs of their communities.

The government has also launched a consultation on new draft guidance to provide advice and support for local leaders looking to bring services into public control.

It says this new, simplified guidance will help break down barriers to local control of bus services, speeding up the process and bringing down costs.

The guidance will also put the needs of passengers and bus drivers first – by encouraging local transport authorities to consider driver welfare and passenger safety, including anti-social behaviour and violence against women and girls.

Government says buses remain the most used form of

public transport across the country, but – after almost four decades of failed deregulation – vital services have been slashed and there is little accountability to passengers.

Compared to 2010, 300 million fewer miles were driven by buses in 2023.

The government recently announced £955m of funding to support bus services until 2026.

It confirmed £712m of funding for local authorities to improve bus services, and a further £243m for bus operators – a longstanding grant paid to keep fares lower and services more frequent than they would otherwise be.

The government says regions in England will benefit from the funding – but particularly those areas that have been historically underserved, like rural areas and small towns.

The funding settlement will mean many more urban areas will be able to maintain their high levels of service – while other areas will be able to offer more services.

# TRANSPORT PROJECTS MAKING PROGRESS ACROSS THE COUNTRY

RECENT MONTHS HAVE SEEN SIGNIFICANT ANNOUNCEMENTS ON THE TRANSPORT FRONT. WE LOOK AT SOME OF THE STORIES MAKING THE INFRASTRUCTURE INTELLIGENCE HEADLINES

**Essex:** Octavius has been awarded the £15.5m Section 1A of the Chelmsford North East Bypass by Essex County Council. It will design and construct a single carriageway in each direction, linking two roundabouts at Beaulieu Park and enabling essential new housebuilding to commence.



Image: London Stansted Airport

**London Stansted:** In October the airport revealed details of a five-year £1.1bn investment programme, including a £600m extension to the existing terminal. This will help the airport serve up to 43 million passengers a year, create up to 5,000 new on-site jobs and see the airport's economic contribution double to £2bn annually.

Leeds: The Transpennine Route Upgrade (TRU), the £11bn railway electrification programme improving journeys across the Pennines between Manchester, Huddersfield, Leeds and York, received approval by the transport secretary for a Transport and Works Act Order (TWAO). This grants the programme permission to deliver a number of major upgrades to the railway between Leeds and Micklefield. James Richardson has also been announced as the new TRU managing director. He takes up the post early in 2025.



Image: West Midlands Combined Authority

West Midlands: Work on the next phase of the West Midlands Metro extension in the Black Country is set to start in January following government approval. This £261m section will extend the line from Flood Street in Dudley town centre to Merry Hill Shopping Centre, calling at Cinder Bank, Pedmore Road and the Waterfront business park on the way.

**London:** Two major contracts have been awarded which will shape the future of the London Underground's famous Piccadilly line, which originally opened in 1906. The work will see the introduction of new trains, increased capacity and an improved passenger experience. Transport for London (TfL) has awarded contracts to VolkerFitzpatrick and Taylor Woodrow to deliver Early Contractor Involvement (ECI) services for the Cockfosters and Northfield Depots respectively.

**London:** AECOM and WW+P Architects have been appointed by TfL to deliver



the feasibility study on four new stations as part of the Bakerloo Line Extension project. Four new stations – Burgess Park, Old Kent Road, New Cross Gate and Lewisham – are expected to be operational by 2040 according to TfL, subject to planning and funding approval.

**Manchester:** In October, Greater Manchester's Bee Network committee signed off several millions of pounds worth of investment in transport infrastructure across the city region. The funding will support the delivery and continued improvement of the integrated public transport system.



Image: Liverpool City Region Combined Authority

**Liverpool:** Liverpool City Region Combined Authority has approved a £96m funding package to build the Liverpool Baltic station. Pending approvals from the Department for Transport, construction will begin in 2025, with mayor Steve Rotheram pledging to have the station open by 2027.



Image: Aline Dassel on Pixabay

**Shetland Islands:** Shetland Islands Council has appointed COWI, Stantec and Mott MacDonald to carry out a comprehensive study on the future transport needs of the Shetland archipelago to create a network strategy for the next 30 years.

**Scotland:** From January 2025, engineers will be working around the clock for 16 weeks to deliver major engineering works as part of the project to electrify the railway between East Kilbride and Glasgow. The £140m project is being delivered by Network Rail and is part of a Scottish government investment in the line.



Image: ACME

London: Network Rail Property has launched a consultation on new plans to transform Britain's busiest station – London Liverpool Street. New plans will provide "significant improvements to public infrastructure" but also protect the station's heritage setting. Connecting more than 100 million people a year, passenger numbers are set to grow to more than 140 million a year by 2050.

West Yorkshire: The West Yorkshire Combined Authority has appointed a consortium of Jacobs and Mott MacDonald as design development partner for the West Yorkshire Mass Transit Programme – an advanced, high-capacity public transport system to be integrated with cycling, walking and rail, to connect communities across the region. Phase one is planned to begin construction in 2028 and operation by the early 2030s. It includes two lines serving Leeds and Bradford.

**Cornwall:** Work on the Mid Cornwall Metro (MCM), a £56.8m rail initiative aimed at improving local journeys and connectivity in the region, is continuing with work to lay new track into Newquay station. The work will bring trains to the new platform that's been restored.



Image: Transport for Wales

**Cardiff:** Graham Group has been awarded the contract for the design and build of the first phase of the Cardiff Crossrail. Both the Welsh and UK governments have confirmed £50m each to back the initial phase of the project from Cardiff Central railway station to Cardiff Bay. II INFRASTRUCTURE INTELLIGENCE

# WHY WE MUST ACCELERATE THE SHARED TRANSPORT JOURNEY



RICHARD DILKS, CHIEF EXECUTIVE OF COMOUK – THE UK'S NATIONAL CHARITY FOR SHARED TRANSPORT – EXPLAINS WHY GOVERNMENT POLICY AND PLANNING ARE KEY TO TAKING SHARED TRANSPORT ADOPTION TO THE NEXT LEVEL

berv

Use of shared transport is at an all-time high. Modes such as cars, bikes and scooters are gaining popularity as people look for costeffective ways to travel from A to B while also reducing their carbon footprint.

But there is still a long road ahead to secure bigger wins both environmentally and socially and to see more of the population change the way they travel.

"We've got significant numbers of people using shared transport," explains Richard Dilks, chief executive of Collaborative Mobility UK (CoMoUK) – the national charity dedicated to the social, economic and environmental benefits of shared transport.

"Figures are at an all-time high for shared cars, bikes and e-scooters, in multiple locations. That's the good news. But we could be doing better in terms of integration in planning and funding."

Users of UK car clubs – where people pay per trip rather than being tied to ownership – now stands at more than 798,000.

In the English e-scooter trials that began in 2020, 3.3 million users had taken more than 47 million rides by April 2024.

And almost 4.5 million of us have given shared bikes a go, with the fleet across

the country now standing at more than 50,000.

The benefits of shared transport are multi-faceted – from improving people's mental and physical wellbeing to saving money, freeing up space taken up by private cars, cutting congestion and improving air quality.

"We're not talking about abolishing cars," adds Dilks, "but rethinking the role for them and reducing their numbers.

"Efficiencies can be enormous and it's interesting what this first step does to people's wider patterns of behaviour as they look more into walking, cycling and public transport."

### SHARED TRANSPORT - THE FACTS

The demand for shared transport continues to rise.

But what are the options and how many of us are using them to get from A to B? We take a look at the latest data from CoMoUK.



#### Shared bikes

As of March 2024, almost 4.5m people had used a shared bike, with more than 2.8m having used one in the last 12 months. There are 50,202 bikes across the UK, with London having the greatest concentration at 37,694 bikes.



#### Shared cars

Almost 800,000 of us have used a pay-per-use car, with 342,233 people having used one in the last 12 months and with the fleet of vehicles standing at 5,207 across the UK. Total users have more than doubled in the last five years – from 353,726 in 2019 to 798,814 in March 2024. The first on-street car club launched in Edinburgh in 1998 and was followed by community schemes in Leeds, Coventry and Bristol.



#### Shared e-scooters

Rental trials started in 2020 and millions of us have given them a go – with 47.7m trips and 3.3m users since trials began. As of April 2024, there were more than 24,255 e-scooters across the UK.



#### Shared rides

Also known as lift sharing or carpooling, this is where people offer to share a trip with one or more passengers. This could be formally through established platforms as well as informally through networks in neighbourhoods, communities and workplaces.



#### **Digital Demand Responsive Transport (DDRT)**

Unlike traditional bus services these, operate along more flexible routes in a more on-demand way. These services pick people up near their journey origin and drop them at or near their destination, creating routes based on demand and data from their user base. CoMoUK is working with public authorities via a dedicated quarterly forum and 1:1 meetings as well as its DDRT operator/platform members.



#### **Mobility hubs**

Mobility hubs bring together shared transport with public transport and active travel in spaces designed to improve the public realm for all. The concept is widely applied in many European and North American cities and increasingly spreading in the UK.



Dilks continues: "But we stress in our work, and our approach to mobility hubs, that to use shared transport people need other options at other times.

"But that's not how things are planned and provided at the moment.

"No one lives at the train station or works above the train station at the other end of the journey. So shared is best seen as something in its own right – and intertwined with other modes of transport."

CoMoUK is currently working on research looking at the potential for shared transport in England and Wales for the first time.

And while shared transport can't provide for every journey, the organisation says it can do a lot more than it's doing at the moment – with lots of room to grow.

Dilks says: "The growth of car club members and the use of shared bikes

has been dramatic – in London in particular, but not just there.

"Once things start spiralling up and awareness is higher, plus customer satisfaction tends to be very high with shared transport – always 80%-plus with shared bikes and car clubs – word of mouth spreads."

The government recently set out its vision for an Integrated National Transport Strategy for England, which will set the high-level direction for how transport should be designed, built and operated over the next 10 years.

The Department for Transport is asking people about their experiences of transport and how it can be improved, with plans to expand hire schemes for bikes and e-scooters seen as part of the new strategy. Dilks described the vision for a national strategy as "a step in the right direction".

He adds: "What we need now is for these promising words to be turned

into real action. We look forward to engaging with this process to help do that.

"Schemes such as car clubs, bike share and e-scooter hire are used by millions of people and growing fast in popularity across the country, but they still have an enormous amount of unrealised potential."

Dilks says the rise in demand for shared transport has come despite there being no national strategy or vision so far. Plus, there are no associated funding programmes – with investment being ad hoc and patchy up to now.

"There is no government policy relating to shared bikes or the role they play. There's no linking up of all the efforts in cycling, which makes no sense at all," he adds.

"I hope this government will make some improvements because there are many missing jigsaw pieces. And there's so much more we could be doing." II

### WHY MORE OF US ARE GETTING ON OUR BIKES

Increasing numbers of us are swapping four wheels for two.

Shared transport – such as bikes and e-scooters – are becoming a common sight in ever increasing locations around the country.

Based in London, Beryl has delivered bike, e-bike, e-cargo bike and e-scooter schemes in more than 20 locations around the country – including London, Birmingham, Leeds, Norwich, Hereford, Greater Manchester, Cornwall, Brighton and Worcester.

Its first bike share schemes launched in Bournemouth, Christchurch and Poole in 2019 – and its most recent in Stevenage.

Since starting out, it has generated nearly 8.5 million sustainable journeys across almost 25 million km and has stimulated in excess of three million hours of physical activity.

According to industry calculations, it has also prevented more than 825 tonnes of carbon dioxide emissions (combined across all schemes) – a significant impact on air quality and public health.

In 2024, Beryl has surpassed milestones in some of its most established schemes, including four million km ridden and one million e-scooter journeys in Norwich and one million km and 500,000 journeys in Hereford.

In its 2023 Rider Report, Beryl found more people were replacing private vehicle trips with Beryl trips, with 56% of respondents having done so, which was up 10% from 2022.

When choosing to sign up, convenience and speed were more important to users in 2023 than the previous year, increasing by 13% to 48% and 11% to 36% respectively.

Recent achievements include the launch of its BBE2 model, a lightweight e-bike which has been five years in development, and becoming the first shared transport operator to be recognised for its commitment to sustainable development by winning a King's Award for Enterprise in April 2024.

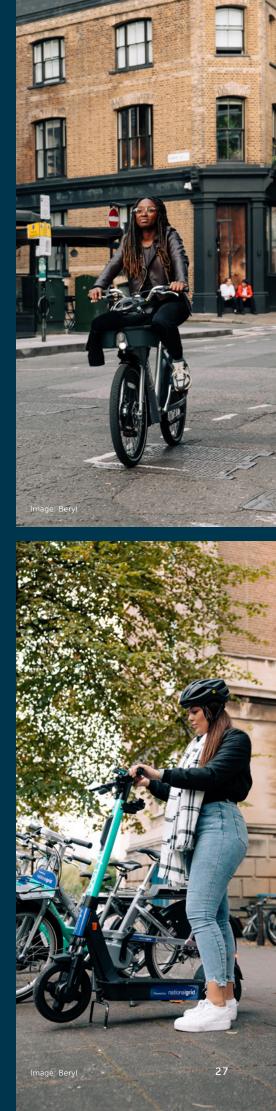
Beryl CEO and co-founder, Phil Ellis, said: "I'm extremely proud of the impact our schemes have had across the UK, encouraging people to adopt more sustainable transport habits and having a positive impact on air quality, traffic congestion and public health levels.

"We're ambitious and passionate about what we do and will continue to work with our existing partners, ensuring all of our schemes remain as user-friendly as possible, while seeking out further opportunities to break down the barriers to active travel.

"We work closely with our towns and cities to ensure our schemes are as fully integrated as possible within existing transport infrastructure.

"Shared mobility can play a vital role in the wider transport picture, providing a sustainable and convenient way to make shorter journeys and connect with mass transit modes. We know, from speaking to our riders directly, that a large percentage use our vehicles to part-commute on a daily basis, for example.

"By delivering in this integrated manner, we can continue to get people swapping four wheels for two and help the government meet its ambitious climate targets."





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