

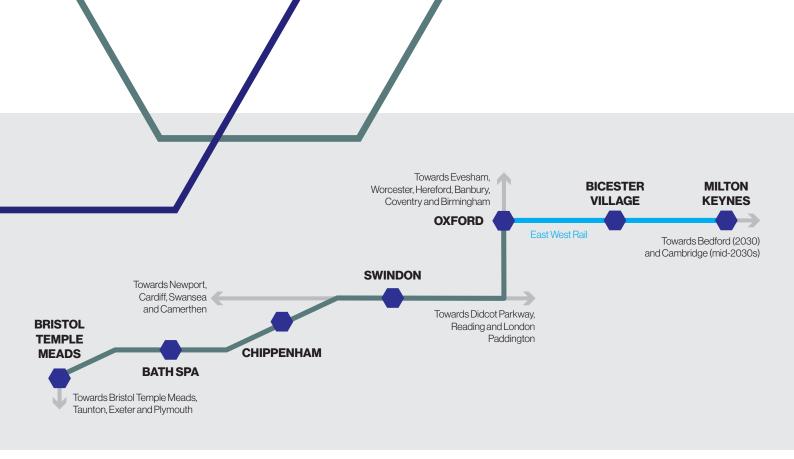




The case for reinstating Oxford-Swindon-Bath-Bristol rail services

Quick, affordable and transformational change for the UK economy and transport system





Contents

At a glance:	3
The opportunity	4
A quick, simple and affordable solution	5
Boosting economic growth	6
Oxford-Bristol Corridor facts and figures	7
Linking key sectors in the corridor	8
Improving the transport system	10
How Oxford-Bristol interfaces with other schemes	11
Supporting sustainable housing growth	11
Achieving net zero	11
Support for Oxford-Swindon-Bath-Bristol	12
The Ask	14
Delivering the service	15

At a glance:

There is a **quick, affordable and simple opportunity** to reinstate direct rail services between Oxford and Swindon, Bath and Bristol.

Building on the **current – highly popular – trial service** on Saturdays the new service would provide an all day, every day hourly service.

Journey times between Oxford and Bristol would be a less than an hour and a quarter, and between Oxford and Swindon just over half an hour.

New daily, hourly services will better connect high-performing,

knowledge-intensive sectors and universities at the heart of the Government's new industrial strategy, together with some of the country's most popular tourist destinations.

The scheme would add help **maximise the value of investments elsewhere**, most notably **East West Rail** (making it possible, as early as 2026, to travel between Bristol and Milton Keynes with only one change) and **MetroWest**.

This opportunity **does not require capital investment**

- the necessary infrastructure is already there. Instead, it requires commitment to fund the operational costs of the new service (ie, train crew, fuel, network access costs, and rolling stock lease cost).

Our ask to government: To specify the service in future timetables and commit to fund its additional operational costs (with the expectation that the service is likely to generate more revenue than it will cost).

A positive business case

Network Rail, in conjunction with GWR, Western Gateway and England's Economic Heartland STBs, and the East West Main Line Partnership, has already carried out several studies that investigate the introduction of Oxford-Swindon-Bath-Bristol services, including a detailed strategic and economic appraisal in 2024. These concluded that there is sufficient capacity on the Great Western Main Line and along the Oxford Corridor to introduce these services, that no new infrastructure spend is required, that the proposals have a positive benefit-cost ratio (BCR) of above four, representing "very high" value for money for a variety of demand scenarios (even including lower than forecast demand), and could be financially positive (ie, not requiring operational subsidy).

The opportunity

The Oxford-Swindon-Bath-Bristol corridor is one of the UK's most dynamic, innovative, and fast growing areas of the UK.

It is home to internationally competitive and diverse economies and knowledge-intensive clusters, ranging from life-sciences, high-end engineering and physics, and higher-education.

As such, the corridor, already valued at £75bn GVA, will play a key role in the Government's mission to accelerate economic growth. This economic strength has been underpinned by higher education institutions along the route, with not only Oxford University ranked as the best university globally by The Times in 2024, but also the Universities of Bath and Bristol which rank highly nationally and support regional clusters of research and innovation. The same locations also add value through their tourist and leisure market: UNESCO World Heritage Sites sited are found at both Bath and Blenheim Palace, near Oxford.

However, this potential is being limited by poor inter-urban links along the corridor when compared to other national and international innovation clusters. Road travel is mostly dependent on single lane, congested A-roads. Whilst the M4 motorway broadly provides east-west road connectivity along the corridor, it does not connect the key settlements of Oxford and Bath.

Generalised Journey Times

Generalised Journey Times (GJT) are used to measure the overall attractiveness of the rail journey and includes factors such as the need to interchange and the frequency of service in addition to the actual journey time.

Currently, there is no direct rail service connecting Oxford to Swindon, Bath and Bristol. Generalised journey times (GJT) are slow for such major hubs and are not competitive with road journeys. The GJT between Oxford and Bristol is 147 minutes, and between Oxford and Swindon it is 78 minutes. A major factor for these significant lengths is the need for passengers to change trains at Didcot Parkway.

Oxford and Bristol are also both major rail hubs and sit at the confluence of multiple routes. They act as gateways for onward connections for local, regional, and national journeys. This function is reflected in the transformative rail investment programmes improving rail services in both cities - East West Rail and MetroWest. A direct service between the two will deliver further benefits from these investments in our transport network.

High demand despite no direct services

We know from existing travel patterns that there is already strong demand for rail services between Oxford, Swindon and Bristol, which would be expected to grow significantly if these journeys were easier to make through the introduction of regular, direct services.

Oxford

- More journeys by rail to Swindon than to Birmingham (which is served by direct, fast trains).
- Similar number of journeys by rail to Bristol as to Birmingham.

Swindon

- Similar number of journeys to Oxford as to Cardiff, and more than to Cheltenham.
- Six times as many journeys to Oxford than to Birmingham.
- Four times as many rail journeys to Oxford as to any other station without regular direct connections (Weston-super-Mare).

Bristol

- Similar number of journeys to Oxford as to Birmingham (which is served by direct fast trains).
- Three times as many rail journeys to Oxford as to any other station without regular direct connections (Swansea).

(Source: RDG Origin Destination Matrix 2022-23 (Rail Data Marketplace, 2023)).

A quick, simple and affordable solution

The new hourly Oxford-Swindon-Chippenham-Bath Spa-Bristol Temple Meads service would build on Great Western Railway's highly popular Saturday trial service introduced in 2024. This new service would **drastically reduce journey times, reducing generalised journey times by up to 30% and delivering journeys between Bristol and Oxford in under an hour and a quarter, and between Swindon and Oxford in just over half an hour.** As a direct service it would also be more reliable and attractive for passengers. Journeys from Oxford to Swindon and Bristol would be competitive with the private car.

This transformational improvement can be delivered quickly, simply and affordably. The new service can be **introduced without new infrastructure or substantial retimetabling**. Like any proposed new service, agreement from funders to take on additional operational costs (such as rolling stock lease costs, traincrew, fuel, and network access costs) is required. This agreement is essential regardless of the revenue projections for the service, which could outweigh the operational costs and make it financially positive. Network Rail's analysis suggests that the new service would represent very high value for money.

With improved connectivity a contiguous, high-value, and internationally competitive economic corridor could be created for the benefit of local businesses and communities, and the wider UK economy (with opportunities to further widen the corridor via East West Rail to Milton Keynes, and eventually Bedford and Cambridge).

Improved connectivity would better link:

- Dynamic economic centres containing the knowledge-intensive sectors vital to the success of the government's emerging industrial strategy.
- The world class 'innovation clusters' (as defined by Department for Science, Innovation and Technology found throughout the corridor, creating agglomeration and productivity benefits between similar businesses. Many of these clusters are amongst the biggest of their type in the UK and include: design and modelling technologies;

- e-commerce; net zero; software development; data; edtech; robotics; quantum economy; pharma; medtech; and foodtech.
- Several of the UK's most renowned universities, thereby offering greater access for students and encouraging greater research collaboration. The University of Oxford is the best university in the world according to *The Times*; while the University of Bristol is ranked the ninth best in the UK; and the University of Bath, Oxford Brookes and University of the West of England are all in the top 65 nationally.
- High-population growth centres. In local plans new population clusters will emerge with major developments outside existing city centres creating inherent demand for transport services.
- Some of England's most popular tourist destinations, encompassing historic buildings, UNESCO world heritage sites, museums, art galleries, family attractions and thriving nightlife.

Connectivity into East West Rail

In addition, improvements to rail connectivity along the corridor would **maximise the benefit of** wider investment in transport infrastructure.

For example, Oxford will be served by East West Rail, putting people and businesses in Bristol and Swindon within just a single change of Milton Keynes and (in time) Bedford and Cambridge. Indeed, this service offers the possibility of integrating with future stages of East West Rail to provide direct services between Bristol and Milton Keynes or Cambridge, as outlined in the Oxfordshire Rail Corridor Study and East West Main Line Strategic Statement. England's Economic Heartland and the East West Main Line Partnership (which includes local authorities alongside EEH, Western Gateway and Transport East sub-national transport bodies) has the ultimate ambition of East West Rail being the spine of a coast to coast East West Main Line, stretching from Bristol across to Ipswich and Norwich.

Boosting economic growth

Improving connectivity between Oxford, Swindon, Bath and Bristol is a quick and affordable way to **boost the knowledge-intensive clusters** which feature so strongly in the corridor, and realise economic growth for the UK.

The establishment of direct, frequent, and reliable train services is integral to the creation of what could become a **single travel-to-work area** along the corridor, with the agglomeration benefits that provides. This would enable residents to readily take advantage of a wider range of employment, leisure, and educational opportunities regardless of the urban area that they live in.

For businesses and academia, improving connectivity along the corridor would join up complementary economic specialisms – **including life sciences**, **physics**, **engineering**, **software-as-a-service and AI technology** – whilst also greatly expanding the pool of talent available to businesses along the entire corridor. It would also enable commercial offshoots from higher education establishments to take advantage of cheaper workspace rents in one area whilst also retaining ready access to higher education establishments in a more expensive area – such as laboratory space in Swindon whilst maintaining ready access to research opportunities in Oxford or Bristol.

The corridor is also expected to be a **national leader** in the Al economy, due in part to the presence of several major submarine data cable landing stations near Bristol and ready access to renewable power. Culham in Oxfordshire has already been earmarked as a location for one of the government's new "Al Growth Zones" (AIGZ), with other locations along the corridor also being suitable for a new generation of data centres. Frequent, fast, and direct rail transport along the corridor will help to create a domestic Al ecosystem by linking potential new data centres along the route with research partners, a wider labour pool, and private industry.

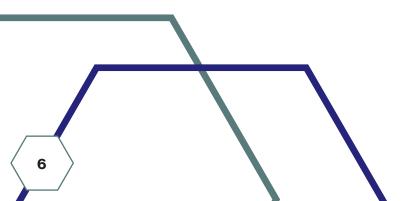
Cambridge Econometrics' analysis

Cambridge Econometrics has provided analysis of the corridor for this brochure*. They concluded:

"There is a clear and compelling narrative to improve transport infrastructure along the length of this corridor. Connecting the innovative scientific and technology centres in and between Oxford and Bristol more closely may realise significant agglomeration effects and catalyse growth in the intervening areas, and Swindon in particular.

"The benefits of closer integration across the corridor through improved connectivity are clearest in terms of the region's prime sectors and innovation clusters:

- Encouraging the advanced engineering prime sector specialism across the corridor, and to encourage specialist knowledge to flow, bringing together the more world-leading advanced physics (notably quantum) and technologyrelated enterprises around Oxford, with the applied engineering and robotics specialisms Bristol. Similarly, the Higher Education sectors in both areas would benefit from increased collaboration and the capacity to leverage research resources (i.e. laboratories).
- The established science and technology clusters in the Oxford area align closely with those in Bristol and increasing the flow of expertise and capital between these cluster centres would likely spur growth in these specialisms.
- The established advanced physics and engineering and life sciences prime sector specialisms in Swindon, as well the emerging science and technology clusters in this area, would benefit from increased corridor-wide R&D collaboration and economic integration. Swindon is situated in-between Oxford and Bristol, has an abundance of affordable commercial floor space, and is already a highly productive regional economic centre. It is well positioned to facilitate and benefit from the expansion of established industries in Oxford and Bristol."



Oxford-Bristol Corridor facts and figures

For its analysis, Cambridge Econometrics used workplace density and commuter zone analysis from Economic and Social Research Council-commissioned research to define the broad Bristol-Bath-Swindon-Oxford corridor. The extent of the corridor analysed is shown in the mapping overleaf.



GVA: £75.6 billion (2022), with growth of 21% between 2012-2022 (compared to English average of 18%).



Population: 1,850,700 (2022), with growth of 10% between 2012-2022 (compared to English average of 7%).



Jobs: 1,026,800 (2023), with growth of 20% between 2013-2023 (compared to English average of 16%)



R&D intensive jobs: 93,500 R&D intensive jobs (2023), growing 24% between 2013-2023 (English average (compared to English average of 20%) and accounting for 9.1% of total jobs in the corridor (compared to English average of 7.3%).



Productivity: Productivity for the corridor as a whole is 5.2% above the national average (2022). Rates vary widely and are highest in the Swindon area (41.9%) and are also positive in and around Bristol (1.9%). However, productivity is just below average in Oxford (-0.3%) and is -23.6% in Bath.



Innovation clusters: The corridor contains 93 'innovation clusters' – spatially concentrated groups of firms, research capabilities, skills, and support structures in related industries that benefit from spillovers associated with agglomeration (as defined by Department for Science, Innovation and Technology). Forty-one of these clusters are within the 10 biggest of their kind in the UK, for example 'autonomy and robotics' around Oxford and 'design and modelling tech' around Bristol.



Sectors: The corridor accounts for 3.6% of all jobs in England (with 3.1% of its population). In some sectors (including those identified as key in the Industrial Strategy green paper), it contributes even more significantly:

- 8.8% of all life science jobs in England
- · 8.3% of all higher education jobs in England
- 5.7% of circular economy jobs in England
- 4.8% of all digital and creative jobs in England
- 4.4% of all advanced physics and engineering jobs in England.

See sector mapping overleaf

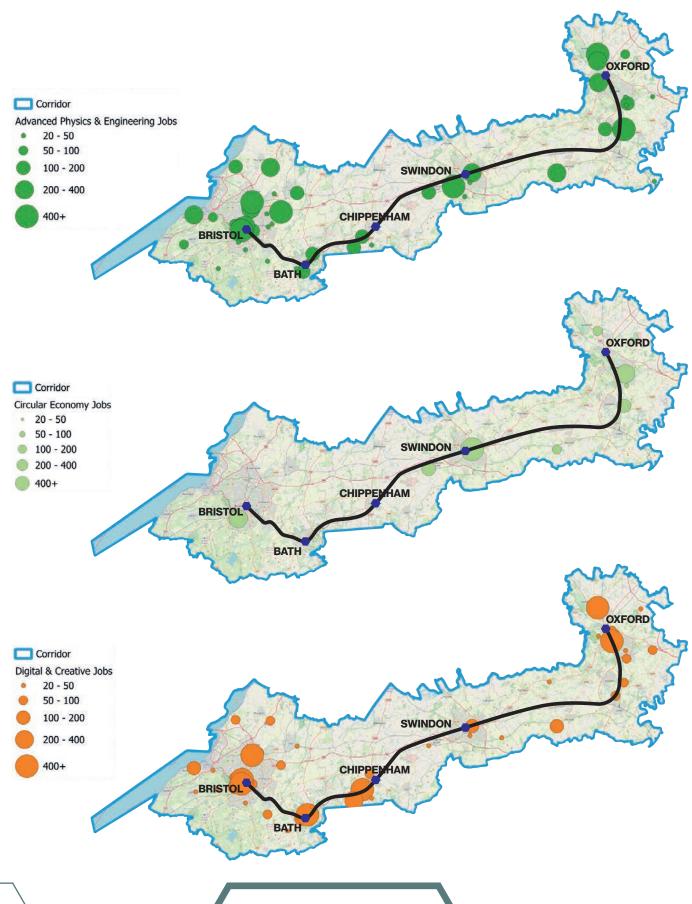


Station usage:

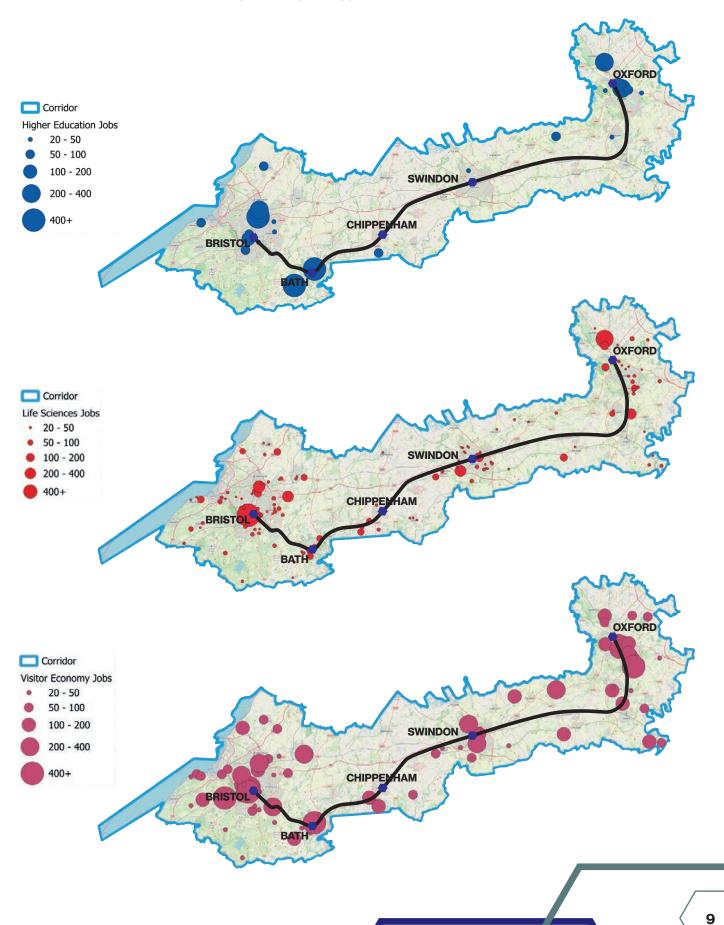
- Oxford: 6.8m entries and exits per annum, and served by 1,795 services per week.
- Swindon: 2.8m entries and exits per annum, and served by 1,198 services per week.
- Bath Spa: 6.1m entries and exits per annum, and served by 1,081 services per week.
- Bristol Temple Meads: 10.2m entries and exits per annum, and served by 2,716 services per week.

*Cambridge Econometrics' data and assumptions are different and separate to that used by Network Rail in its appraisal. The corridor geography used for Cambridge Econometrics' analysis and mapping does not align with administrative boundaries or the Network Rail appraisal. Please see overleaf for a visual representation of the corridor used.

Linking key sectors in the corridor



The mapping below from Cambridge Econometrics highlights the significance key sectors (based on combining 'standard industrial classification' – SIC – codes) along the corridor and how the new Oxford-Swindon-Bath-Bristol service would better link these, creating clustering and agglomeration benefits.



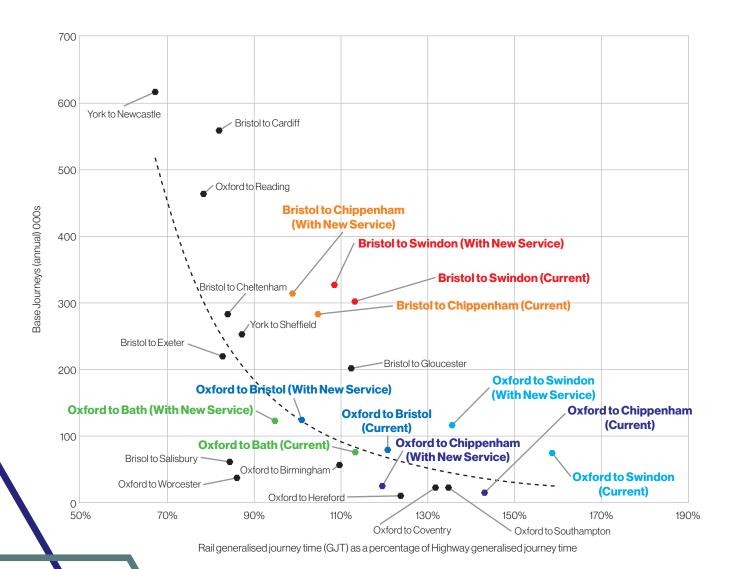
Improving the transport system

Public transport provision from Oxford to Swindon, Bath and Bristol is currently lacking, with only one direct coach service a day and a non-direct patchwork of local bus routes. This contributes to road transport in and around urban centres within the corridor being severely congested, together with the main arterial routes between the settlements (namely the A34, M4, and A420). With local leaders committed to encouraging modal shift to public transport there is more demand than ever for a frequent and reliable public transport option.

The major reductions in journey times as a result of a new, direct hourly service are forecast to significantly increase the number of rail journeys taken between Oxford, Swindon, Bath and Bristol. **Indeed, the new service is forecast to increase rail journeys between Oxford and Bristol by 58%**.

The graph below plots generalised journey times by rail compared to road, together with passenger numbers, for a range of location pairs. This includes within the corridor, based on service levels today, and how this will improve with the new hourly service. The improvement in generalised journey times is predicted to lead to a sizeable increase in passenger numbers, even without considering anticipated employment, housing, and leisure market growth along the corridor.

These journey time improvements, and associated increases in passenger numbers, would help alleviate congestion along the corridor, improve logistics flows via reduced road congestion, help the corridor achieve its decarbonisation objectives, and improve connectivity for leisure and tourist travellers between some of the UK's most visited destinations.



How Oxford-Bristol interfaces with other schemes

East West Rail: East West Rail is restoring the lost rail link between Oxford and Cambridge with passenger services commencing from 2025 between Oxford and Milton Keynes, and eventually providing a direct Oxford-Milton Keynes-Bedford-Cambridge rail link. It will intersect several main lines including West Coast, Midland, East Coast and Anglian. This will transform passenger journeys within the England's Economic Heartland region. East West Rail will make Oxford an increasingly attractive node on the UK rail passenger network and provide further gains in terms of connectivity.

A direct Oxford-Bristol service provides a single interchange (at Oxford) between East West Rail destinations and the West of England, and drastically reduces current journey times. In future there is the potential to link services, for example providing a direct service between Bristol and Cambridge,

via Oxford, which could have transformative impact on regional and national journeys.

MetroWest: MetroWest is a multi-year programme to improve rail transport in Bristol and the surrounding West of England region, with the aim of improving connectivity and enhancing local economies. A new Bristol – Swindon – Oxford service would improve connectivity with the wider MetroWest proposals whilst also improving frequency, and reliability, of services along the Bath Corridor

Cowley Plus: The reopening of the Cowley branch line, and associated new stations, aims to improve rail connectivity for south and east Oxford. This would be complementary to the improved connectivity provided by the Bristol Oxford service and increase the number of viable journeys by rail, and the concomitant economic and environmental benefits.

Supporting sustainable housing growth

The corridor is one of the UK's fastest growing areas outside of London. Being the centre of several world-leading innovation clusters has meant that housing, commercial space, and laboratory space must grow to not only keep pace with economic development, but also to generate economic development.

Recently, the government significantly increased annual house building targets for local authorities in the corridor including for Bath and North East Somerset (from 717 to 1,471); Wiltshire (from 1,917 to 3,525); Swindon (from 1,005 to 1,205); and Oxford (from 762 to 1,087).

Without the provision of new, and attractive, public transport options the corridor's road infrastructure is unlikely to accommodate this population growth without significant new infrastructure investment.

The creation of a new direct service between Oxford and Bristol will allow the corridor to act as a single travel-to-work-area, alleviating housing and workspace pressures in any one settlement.

Additionally, there is the possibility of (re) opening stations along the route, such as Grove / Wantage or Corsham, to serve anticipated new housing developments, thereby ensuring that local infrastructure can comfortably handle the expected commuting habits of future residents.

Whilst the new service is independent of new station aspirations, which would need to have their own case, the existence of the service could strengthen the case for any prospective new station.

Achieving net zero

The provision of a fast, frequent, and reliable rail service between these urban areas, and the subsequent creation of a single travel-to-work area, is key for **achieving modal shift away from private car usage**. Not only is this necessary for the UK as a whole to achieve its net-zero objectives, it would also provide immediate relieve air pollution and resultant impacts on health. This in turn has an economic benefit: in Bristol alone the economic health costs of air pollution are between £50m -£170m on average per year.

A new direct rail service offering would divert journeys away from road travel and onto a more environmentally friendly way to travel. If bi-mode units are selected to run this service then electric traction would be in operation for the majority of the route.

There is a choice: further increasing congestion from private vehicular traffic which would undermine productivity and prosperity, or fully realising the economic benefits of the creation of a single travel-towork area linked via frequent, direct, and high quality rail services.

Support for Oxford-Swindon-Bath-Bristol

East West Main Line Partnership

The East West Main Line Partnership is a consortium of local authorities and sub-national transport bodies. It made the original case for East West Rail between Oxford and Cambridge, which it says should eventually act as the spine of a direct coast-to-coast East West Main Line from East Anglia right across to the west of England and south Wales. In the shorter term, it is keen to maximise government's investment through improved integration of the rail network into East West Rail.

Whilst the proposed Oxford-Swindon-Bath-Bristol services would not, initially, continue along East West Rail, the new service would offer easy onwards by changing at Oxford. In time it could be extended to provide direct connections between Bristol and Milton Keynes, or eventually Cambridge.

The East West Main Line Partnership's strong support for Oxford-Bristol services is demonstrated by its Board of elected local authority leaders agreeing to contribute financially to Network Rail's work on the strategic and economic case.

England's Economic Heartland (EEH)

As the sub-national transport body for the region covering Swindon and Oxfordshire, through to Cambridgeshire and Peterborough, EEH considers the introduction of Oxford-Swindon-Bath-Bristol services a strategic priority.

The concept of the East West Main Line is promoted in its regional transport strategy (2021) and the opportunity for Oxford-Swindon-Bath-Bristol services identified in its Main Line Priorities Rail Study (2024). The scheme also features in its Connecting Economies brochure covering Oxford, Swindon and Bristol, which provided a strong economic narrative for greater connectivity between these key economic centres.

EEH's work and priorities are agreed by its Strategic Transport Leadership Board of elected leaders and cabinet members from its 13 local transport and combined authorities.

Western Gateway STB

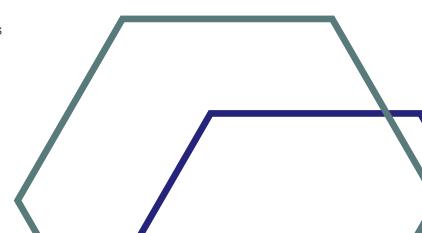
Western Gateway is the sub-national transport body for Wiltshire, the West of England Combined Authority (WECA), Dorset, Gloucester, and parts of Somerset. Its Board has agreed that the introduction of a Bristol – Swindon – Oxford service is a priority of the STB, and is one of the 18 priority schemes identified in the Western Gateway Strategic Investment Plan currently out to consultation.

The new services are explicitly mentioned in the West of England Combined Authority's Combined Transport Plan and 10 Year Rail Delivery Plan as a way to encourage modal shift, social mobility, decarbonisation, and economic growth.

Local and combined authority support

The West of England Joint Local Transport Plan 4 (adopted March 2020) has policy W1 to provide more public transport options which includes a commitment to a new Bristol to Oxford via Bath Spa service with links to East-West Rail. Following this Bristol to Oxford was included in the West of England Combined Authority's 10 Year Rail Delivery Plan, approved in 2021.

The intervention is also highlighted as a priority within the transport strategies of Oxfordshire County Council and Swindon and Borough Council.



Cllr Liz Leffman, Chair of England's Economic Heartland and Leader of Oxfordshire County Council, said:

This is a low-cost, quick-to-deliver proposal which would transform Oxford's westwards connectivity to economic centres including Swindon and Bristol. It will support economic growth by expanding jobs markets and linking business clusters along a corridor with world class strengths in science, technology, education and tourism. It will encourage more people to switch from car to public transport, particularly between Oxford and Swindon, where journey times and congestion by road are a long-standing issue.

Oxfordshire County Council is currently undertaking a feasibility study on the potential for a station at Grove and Wantage and the introduction of Oxford-Bristol services only strengthens its case.

Crucially, this proposal also adds significant value to East West Rail, which opens this year, by making journeys between Milton Keynes and Bristol possible with just a simple change at Oxford, with this eventually widening to include Bedford and Cambridge. This really is a no-regrets decision – requiring very little investment but delivering major benefits to our communities, businesses and environment.

Cllr Manda Rigby, Chair of Western Gateway STB and Cabinet Member for Highways, Bath & North East Somerset Council, said:

Reinstating direct rail services between Oxford, Bristol, Bath, and Swindon offers a cost-effective, time saving and sustainable solution for the Western Gateway region. This initiative will drive economic growth, reduce emissions, and enhance access to jobs, services, and opportunities. Aligned with the Strategic Transport Plan, the scheme will improve connectivity, ease congestion, helping to create a more prosperous and resilient region for the future.

Rail industry strategic plans

A direct service between Oxford and Bristol has been recommended in multiple Network Rail strategic reports, which form part of the rail industry Long Term Planning Process.

The Oxfordshire Rail Corridor Study (2020) identifies connections between Oxford and both Swindon and Bristol as top priorities for improvement, and recommends delivering this with a direct Bristol to Cambridge service via Oxford.

The <u>Greater Bristol Strategic Study</u> (2023) identifies a direct connection between Bristol and Oxford as the highest priority connectivity improvement on the Great Western Main Line and includes a Bristol-Oxford hourly service in its first tranche of new services recommended.

The East West Main Line strategic statement (2022) identifies Swindon and Bristol as highly beneficial connections from East West Rail destinations and proposes that fast direct services would link Bristol and Swindon with Oxford and beyond.

Cllr Chris Watts, Cabinet Member for the Environment and Transport at Swindon Borough Council, said:

Connectivity between Swindon and Oxford is currently limited by the lack of a direct rail service and long journey times by bus. This transformational proposal is an affordable 'quick win' which would boost our shared strengths in sectors such as life sciences and manufacturing, expanding access to skilled labour and premises and creating agglomeration benefits which unlock economic growth. Swindon's significant housing growth would also be supported by improvements to sustainable transport, with opportunities for traveling on East West Rail from Oxford a short and simple journey away. Indeed, we see this as a crucial first step to ultimately realising 'coast-to-coast' east-west services from western England across to East Anglia.

The Ask

There is no need for capital investment to deliver the new service.

Like all proposed new services funder agreement is required to specify and underwrite the costs of the new service, which include rolling stock lease costs, traincrew, fuel, and network access costs.

In this case the funder and service specifier is expected to be Department for Transport given the substantial socio-economic benefits of the service, its regional nature, and the need to integrate with existing operations.

Whilst Network Rail's appraisal suggests that the service is expected to be financially positive under all but the lowest demand forecasts – i.e. not requiring subsidy – this agreement to fund the operational costs

is still essential (since the cost can be regarded as a certainty, whereas the expected revenue cannot).

The anticipated operational cost is in the low (single-figure) millions of pounds per year.

This represents less than 1% of the current operational cost of Western services (ORR data portal). The ask is for commitment to fund this amount (with the expectation that the service is likely to generate more revenue than it will cost).

Commitment from DfT to specify the service in a future contract would also allow it to be factored into timetable development and decisions on network capacity.



Delivering the service

facilities in both locations.



