



LIGHT RAIL TRANSIT FOR URBAN RENEWAL

Reg Harman and Nick Falk explore why investment in light rail transit is critical to national recovery, as well as the growth and renewal of the UK's major cities.

▲ ABOVE: The UK's Docklands Light Railway (DLR) has helped to revitalise East London, resulting in increased rail usage and accelerated house building around stations. Here car 152 approaches Heron Quay from Canary Wharf. Neil Pulling

The UK's Labour government, in parallel with increasing economic growth, has committed itself to a very ambitious goal: building 1.5 million more homes during the present parliament. This figure was set out by Sir Keir Starmer at the party conference in October 2023 and was included in the 2024 election manifesto. It amounts to increasing the dwelling stock by a figure of 300 000 new homes a year, including new houses and flats and conversions of existing buildings. The previous Conservative government had the same aim, but only managed to build 235 000 in both 2021-22 and 2022-23. The numbers have been falling as volume housebuilders respond to a drop in housing demand and fears about mortgage costs, while local authorities are overloaded with pressures they cannot meet.

Its achievement is to be helped through planning reforms by updating the *National Planning Policy Framework*, the release of 'lower quality' green belt (protected) land, the reintroduction of mandatory housing targets for local authorities, and the development of new towns, probably as urban extensions. But worryingly, no mention is made of transport and accessibility, which are crucial

to the effective functioning of urban areas in economic and social terms. There remains a wide gulf between where we currently are, and recognising how spatial planning and transport could work far more effectively together, with light rail – tramways and light metro – at the core.

“There is little point setting targets without overcoming the persistent obstacles... from fractured local authorities to a huge infrastructure deficit...”

Density and transport

Development and infrastructure need to be joined up in urban conurbations. Congestion is a burning issue, like housing costs, but not generally understood. Public transport outside London lags decades behind our European competitors, which helps explain the UK's poor economic performance.¹ Good quality integrated transport is essential to achieving the wider aims of housing

goals – higher productivity and a better quality of life. It is also vital to cutting carbon emissions and improving public health through reduced air pollution and stress. The revival of East London has been enabled through investments such as the Docklands Light Railway (DLR), and latterly the London Overground. This has increased rail usage in East London, dramatically accelerated house building around stations such as Dalston, and is turning development at Barking Riverside into what could become a new town.

There is little point setting targets without overcoming the persistent obstacles, ranging from fractured and demoralised local authorities, to a huge infrastructure deficit and a shortage of skilled people working in urban and strategic planning and in public transport. There is little value in building new homes if the current dominance of car use means that working residents spend too much time in traffic jams, cyclists are endangered, and the conditions for walking are highly unpleasant. Yet development in the green belt and urban fringe areas could lead to further car-dependent housing estates on the edge of towns or isolated in rural settings, as authoritative research studies by the RTP1 and the campaigning group

Transport for New Homes have warned.²

It follows that the government's plans to provide more affordable homes and boost overall productivity should be based on growing or intensifying development around high-quality, high-capacity public transport, which is where light rail transit scores. To be attractive and effective enough to counter the car culture, these must be integrated and based round a core of tramways and local rail to provide the reliability and comfort that frequent travellers require. Some will serve newly-built housing outside existing urban areas. Local rail lines might also be converted to tramway lines or used on the the SwiftRail principles previously suggested by the authors.³ But we must also build to higher densities and make better use of land too often occupied by sheds that generate few jobs and little tax revenue.

How light rail adds value

Persuasive reports in recent years have highlighted the benefits of tramways, such as *Leading Light: What Light Rail can do for City Regions* from the Urban Transport Group.⁴ However, potential sponsors and constructors face serious obstacles. *Back on Track: How to build new trams in the UK and get Britain moving*, published by campaign group Britain Remade, highlighted the excessive time and cost it has taken to build tramways and similar schemes in Britain. It noted the average cost per mile (1.6km) as GBP87m (EUR105.4m), compared with an average of GBP42m (EUR50.9m) across the European continent.⁵ Tight control of spending decisions by the Treasury has not stopped costs ballooning.

Four lessons stand out from research into why European cities have outperformed their English equivalents:

- Britain is much more centralised than its European neighbours and the cities with the highest economic growth. Authorities in cities and city regions across the Continent have clear responsibility for most key decisions on spatial development, transport and related fields, plus the funding powers and levels to make things happen. They can thus better judge the relative opportunities and benefits within the overall context and implement projects to achieve them.
- There has been little strategic planning in Britain in recent years, and so every decision is taken in isolation. This contrasts with the French approach where local public transport strategies are joined up or 'aligned' with planning for city regions. *Zones d'Aménagement Concerté* and Territorial Contracts provide investors with greater certainty. Land Assembly Zones are now being promoted in the London Mayor's Manifesto.⁶
- Funding does not depend on central government. For example in France a supplement on the payrolls of those employing more than ten, the *Versement Transport*, provides a degree of local autonomy. The state investment bank, the *Caisse des Dépôts*, has the expertise to assess and fund schemes that secure better growth. The UK Infrastructure Bank has been renamed the National Wealth Fund, but the full lessons do not



▲ ABOVE: Aarhus in Denmark was highlighted in a report as one of four cities that successfully introduced trams; each of them had five commonalities. News Oresund

► RIGHT: Typical French features of effective tramway development - modern city residential development and 'façade a façade' enhancement at Chavant, a key junction on the Grenoble tramway system. Reg Harman



yet seem to have been learned.⁷

- The systems used for planning and evaluating new projects fail to take full account of the wider and longer-term benefits that come from overall urban renewal. This particularly reflects the role of the WebTAG system, controlled by the Department for Transport and the Treasury (see *TAUT* 986, February 2020)⁸.

The Academy of Urbanism drew lessons in a webinar and report from introducing trams in four leading cities: Copenhagen and Aarhus in Denmark, Dublin in the Republic of Ireland, and Nottingham.⁹ These success stories had five factors in common: a compelling vision, practical options, collaborative organisation, packaging funding, and ongoing stewardship. Such an approach will be essential to building the new towns that Labour has promised. Yet the rate of growth of the proposed ecotowns at Northstowe, north of Cambridge, and at Bicester, near Oxford, has been disappointing. The existing business and development model simply does not work, even with heavy public investment, not least because it is assumed that car use will provide accessibility for a modern lifestyle. Transit schemes, if offered, are usually bus-based, chosen for their

supposedly lower costs and flexibility. But they do not provide the smooth travel and clear routes that passengers can rely on. For this, tramways – both on street and on private rights-of-way – are essential.

Some of the most successful European cities show what works.

- In Vienna, the new town of Aspern Seestadt has kept housing affordable while being rated highly on every account. The innovative settlement is being developed on the site of a former airport and connected through a metro extension.
- Copenhagen funded its first Metro line by building the new town of Orestad on the line to the airport.
- In Zürich, a housing cooperative built 97 stylish new apartments above one of its central tram depots in the Wiedikon district, called Kalkbreite, a combined residential-commercial zone.

These reflect the importance that light rail has always had across most central European and Scandinavian cities. But it is in France, where tramways almost disappeared by the 1950s as in the UK, where the greatest revival has occurred. Over two dozen cities have built new tram systems as the backbone of local transit serving urban regeneration and new development areas. Paris continues to

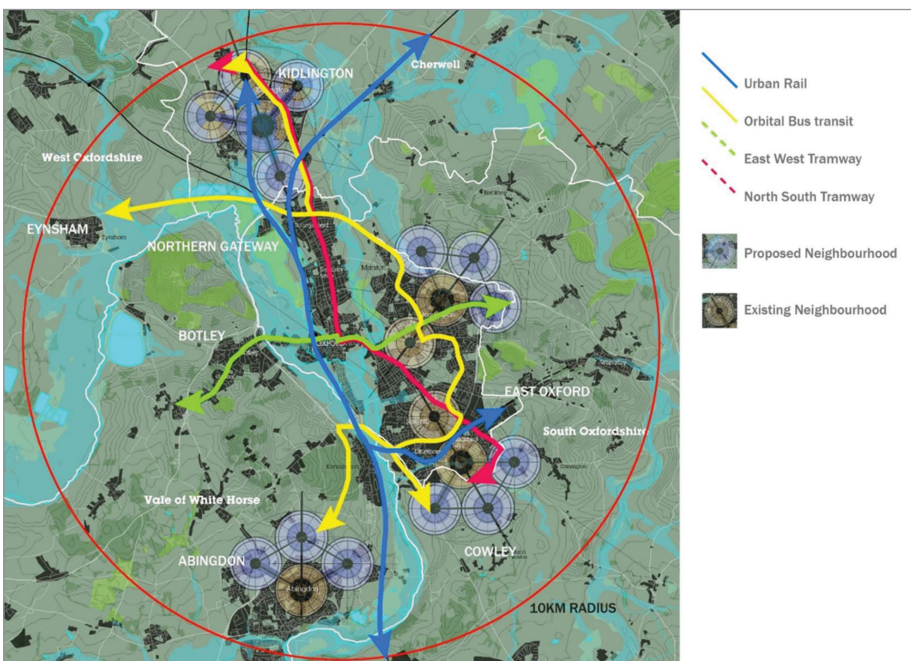


▲ ABOVE: Trams bring new life to older suburban centres through much improved connectivity. This is Avenue Andre Maginot in Tours - note the well planned and executed highway engineering. Reg Harman



▲ ABOVE: A tramway system offers fast and reliable connectivity for large modern developments. Pictured is Avenue Berthelot in Lyon, France. Reg Harman

▼ BELOW: Plan for the notional Uxcester Garden City, from the 2014 Wolfson Economics Prize-winning submission by Nicholas Falk and David Rudlin - a blueprint for Oxford? Urbed Trust



extend the major network it started only in 1992 into the city's suburbs, where it complements the Metro and the RER. The system is also used to help regenerate poorer areas such as St Denis.

A tale of two cities

In the UK, the city of Oxford is losing out to its rival Cambridge, which has fast electric trains to London and a very high rate of housebuilding. The striking contrast between Oxford and its twin city Grenoble highlights the missed opportunities. Both are home to internationally-reputed universities, with complementary research centres and high-quality manufacturing. But while Oxford is mired in congestion, made worse by the closure of the Botley Road next to Oxford Station, and with the least affordable housing outside London, Grenoble has transformed its environmental appeal and economic prospects. This reflects the powers devolved from Paris in the 1990s by President Mitterand.

French city conurbations have seen their economies outpacing the UK, not least through the enhancement of urban areas, largely based around giving the main streets over to public transport, especially tram lines. In Grenoble's case this has involved strong cooperation and interworking by the city authorities, research centres and commercial undertakings. A network of five tramway lines links the city centre with the main community and commercial establishments and housing areas on the edge. As these evolve, so too does the tramway. Many other French cities have since done the same, redesigning their principal streets around trams, bicycles and walking.

Two key factors stand out. First, French cities do not build a tramway in isolation. Rather they regenerate a complete corridor. The 'façade a façade' principles are very evident in the high-quality of the built environment along tramways. Second, future development areas are considered in the design of current lines. For example, points are installed on new lines where a further line will eventually branch off.

The French approach was borne in mind by Nicholas Falk and David Rudlin in designing the notional Uxcester Garden City, which won the 2014 Wolfson Economics Prize.¹⁰ Tested out in Oxford, this showed how to build new garden cities that are 'visionary, viable and popular' without the need for government subsidy. Projections showed that the population could be doubled in 30 years by taking a substantial bite (about 5%) from the green belt, rather than nibbling away around villages. The increase in land values could have funded Oxford's first new tram line as part of an integrated system.

Where do we go now?

So now is the time not just to fund a few isolated transport projects or further consultants' reports, but to bring the different elements together. This is not an issue of technology: proven options for light rail and other systems can be bought off the shelf and manufacturers continue to put serious effort into research and development. Rather it is about government having the courage to devolve powers, and to create local



Trams in the vibrant centre of Orleans, with Joan of Arc dominating the well filled streets. Reg Harman

“No one mode can make a city work better on its own, so integration of public transport must replace pointless competition to get the best value.”

organisations with the capacity to deliver and maintain what is needed. The choice of locations is critical as so much depends on where people want to live, as well as how easy it is to get to work and services. As in France, transport projects need to be seen as part of wider growth plans, and this is where Labour’s promised reform of urban planning and devolution could help. This is not about unshackling private enterprise but rather removing unnecessary risks by assembling sites and installing the infrastructure needed to create healthy and happy neighbourhoods.

Starting with the long-established opportunities for tramways in major cities such as Oxford, Leeds, Bristol, or even the Stoke conurbation, this approach would enable light rail to become the basis for accessible and smart urban living across the country. Of course, no one mode can make a city work better on its own, so integration of public transport must replace pointless competition to get the best value from our urban heritage or common wealth.

To enable this approach there are seven steps that government needs to take:

1. Local authorities must have the powers and the funding to undertake serious projects. ‘We cannot afford it’ should no longer be the excuse for another busway when light rail offers the prospects for urban renewal.
2. Honest appraisal requires a framework that clearly indicates whether a light rail system offers real gains. Clearly our European neighbours have the tools to do this; why can’t we do it in the UK? We need to establish a broad appraisal system that assesses the benefits and impacts in a disciplined and cohesive fashion, with the WebTAG focus on forecasting traffic levels forming one of several elements.
3. Development strategies must have clearly-focused objectives of minimising car dependence, by making it easier and attractive to use public transport and to walk and cycle, as a basis for

developing better neighbourhoods and towns.

4. Joint ventures to develop local transport systems should be set up between local authorities, public agencies such as development corporations or London and Continental Rail, and commercial partners. These need not be on the same basis for every city region.
5. Professional education and training should seek to produce an increasing cohort of people who are well-versed in public transport modes and systems, and in the relationships that transport has with economic and spatial development.
6. Government should act in the short term to identify some areas for regeneration or growth that could form pilot projects, finding stakeholders keen to support the approach.
7. Government must make the necessary legislative changes, including revisions to the NPPF to require coordination of spatial and transport planning and a new local transport Act to allow genuinely integrated public transport. **TAUT**



A ABOVE: Dublin’s LUAS network, here at Parnell Monument junction, is one system in a city cited as having a ‘compelling vision, practical options, collaborative organisation, packaging funding, and ongoing stewardship’ - all of which contributed to the system’s continued success. Neil Pulling

FOOTNOTES

1. Anthony Breach, *Measuring up: Comparing public transport in the UK and Europe’s biggest cities*, Centre for Cities 2021
2. Location of New Homes 4, joint research report
3. RTP1
4. *Leading Light: What Light Rail can do for City Regions* Urban Transport Group 2012
5. *Back on Track*, Britain Remade 2024
6. *Capital Gains: A Better Land Assembly Model for London*, GLA <https://www.london.gov.uk/programmes-strategies/housing-and-land/housing-and-land-publications/capital-gains-better-land-assembly-model-london>
7. Nicholas Falk, *Funding Housing and Local Growth: How a British Investment Bank Could Help*, Smith Institute 2014
8. Reg Harman, *What’s your tramway really worth?*, *Tramways & Urban Transit*, February 2020
9. *Rapid Transit and Urban Recovery: How should towns and cities respond?* Academy of Urbanism, 2021 www.aou.org
10. Uxcester Garden City, www.oxfordfutures.org