

'We must learn from overseas experience'

How can the barriers to investment and development in light rail in the UK be lifted? LRTA Deputy Chairman Andrew Braddock presents the Association's point of view.

A searching inquiry has been held into why the UK Government is resisting investment in new light rapid transit when the benefits are proven many times over.

Leading experts were invited to the House of Commons in London during October and November to present evidence to the All-Party Parliamentary Light Rail Group comprising transport-minded MPs, with support from PTEG, which represents the UK's Passenger Transport Executives (PTEs).

It is five years since the Transport Select Committee demanded to know why tram systems in the UK cost so much more than in mainland Europe. While the Government has approved several new schemes and invested in trams since then, it still remains a fact that new systems take significantly longer and cost much more to implement in the UK than they do overseas, and specifically in mainland Europe.

The inquiry's remit is to review current progress, compare experience with other countries, examine current government policy, consider opportunities and risks, and examine how a fairer, more effective and efficient framework can be established.

The inquiry panel has been led by MPs Paul Rowen (Chair - Rochdale), Tom Harris (Glasgow South), Graham Stringer (Manchester Blackley), and Lord Peter Bowness.

The LRTA's submission

The LRTA believes that well-designed tram and light rail systems can play a major role in providing safe, sustainable and economic public transport. They can eliminate pollution at the point of use, achieve significant modal shift

"Light rail has a better proven record at encouraging modal shift than buses – up to 30%."

from private cars, encourage inward investment, provide a sense of permanence, and ensure accessibility for everyone.

UK political, town planning and fiscal systems discourage investment in light rail, compared with mainland European countries. The LRTA considers that there should be a much greater degree of freedom for local authorities to authorise, and raise funding for, projects.

There are many ways that capital outlay can be substantially reduced. Maximum hardware standardisation, client bearing of ridership risk, and continuity of business to suppliers can all assist massively.

There are also many advantages delivered by trams and light rail. We are concerned about carbon dioxide emissions, energy efficiency, and ability to use 'clean' energy, especially locally-produced electricity, reducing fossil fuel use to alleviate the impact of 'peak oil', its very high cost and likely scarcity. Light rail does not depend on future technology.

For the local environment, there are no direct harmful emissions and the effects of nitrous oxide and other harmful pollutants which are dangerous to children and older people are reduced. There is also decreased noise pollution.

Another factor is modal shift. Transfer from car use is up



Manchester Metrolink has recently invested over GBP80m in new LRVs from Bombardier. Here M5000 tram 3002 is seen in daytime testing at Bury Interchange on 19 November. John Symons

to 30% – light rail has a better proven record than buses.

In addition, light rail encourages inward investment, regenerating city and suburban centres and reducing social exclusion. The total value is often several times the capital outlay on a scheme. Regeneration can transform deprived areas; trams are better-suited to run in pedestrian streets; fixed track systems offer the reassurance of 'permanence'; there is increased footfall in retail centres; and they are disability-friendly thanks to step-free boarding.

Barriers

In most other countries, trams are seen as a vital component of the urban fabric, not just a means of transport. Though private car ownership is often higher (e.g. in Germany) there is generally lower car use than in the UK.

Due in part to a more environmentally-conscious population as a whole, public transport – especially light rail – is regarded as a good thing, both by ordinary people and their elected representatives.

Political will

The political situation in other countries is generally less prone to change (the UK swings from right to left, with nationalisation, privatisation, and deregulation).

In the UK, there is a tendency to think short term and never assess whole-life costs of transport investment. Inevitably, light rail represents a long-term commitment and must be treated as a betterment for subsequent generations.

There is reluctance to allocate road space to public transport commensurate with its carrying capacity – traffic management is focused on movement of vehicles rather than people.

Standards, planning and money

The current lack of standards leads to increased unit costs, such as bespoke rolling stock. The complex, slow and

cumbersome Transport & Works Act increases costs.

There is a virtual inability to raise capital locally, combined with Treasury dominance, and a lack of firm commitment of government funds at an early stage.

There is wasted investment in developing schemes and then cancelling them, and difficulty involving the private sector because of long timescales and lack of certainty over funding.

Excessive costs of moving utilities place too high a proportion on promoters - and a lack of continuity in funding schemes nationwide leads to dissipation of expertise in light rail construction.

Philosophical barriers

The Department for Transport tends to ignore evidence from outside the UK of the benefits of public transport improvement, and integration of modes is hampered by the fragmented nature of reliance on market forces.

Over-engineering of light rail lines is due partly to a lack of recent experience compared with heavy rail construction and partly to excessively inflexible safety rules.

"Over-engineering of UK LRT is due to a lack of experience compared with heavy rail and excessively inflexible safety rules."

Solutions

Central government must set out a clear policy framework encouraging low carbon public transport schemes to achieve modal shift. It must set challenging targets to reduce congestion and harmful emissions, and provide support for local government and transport authorities.

A fundamental review of local government is required - including creation of city regions with democratically-elected mayors to drive forward urban renewal.

Powerful transport and land-use planning authorities must be created, responsible to city regions in place of the ITA/PTE structure. The French *Société d'Economie Mixte* public-private partnerships and German *Verkehrsverbunde* are ideal models. Likewise, local business involvement is vital to bring together of public and private sector aspirations.

There must be a fundamental review of planning and the Transport & Works Act to deliver in shorter timescales.

Devolution of fund raising powers is essential, with a French-style *Versement Transport* or German/US-style local fuel-tax income dedicated to public transport projects. Workplace parking levy, road pricing and congestion charging are options, but clearly unpopular with business and voters.

A mechanism needs to be found to claw back from property developers some of the increase in land value attributable to the regeneration effects of light rail schemes.

Carbon credit regimes need to be considered, linked to environmental benefits and modal switch and there should be better integration with other transport modes, particularly bus and heavy rail, through enforceable partnerships using the powers under the Local Transport Act 2008.

Reducing costs

Avoiding the transfer of risk to the private sector would help, as would standardisation of equipment to cut unit costs.

In smaller cities and towns, every effort must be made to plan and develop two or more schemes in parallel and procure 'standardised' rolling stock. Consideration must also be given to not moving utilities where street track is involved - making greater use of temporary track and single-line working to keep services operating. Strict control of access to utilities must be vested in the light rail operator.

Lower-cost solutions for smaller urban centres must not be overlooked; light tram or ultra-light rail projects can deliver the same benefits.

Finally, there must be greater willingness to learn from overseas experience, such as tram-trains. **TAUT**

TramForward

Why does the UK need tram-train 'trials'?



A close encounter with the motor car - a *Regio Citadis* in Kassel city centre. Tony Streeter

We have seen the future - a transport system that speeds passengers swiftly where they want to go; public transport that competes with the car on comfort, cost and convenience - whether to a city centre or a small village.

The mode that makes all this possible? The tram-train, together with a coherent, carefully-developed network to make the best of its advantages.

Since 2007, Wolfhagen (pop 13 000) in Germany, has had the convenience of a rapid transit system that takes its residents, without changes, to the very centre of the shopping district in the city of Kassel, 30km away. On rails, and at speeds and with a level of comfort that a bus would struggle to match. One moment the 'train' is speeding through the suburbs at up to 100km/h (60mph). The next, the 'tram' squeezes round a 22m radius curve as it slides quietly and cleanly along city streets. Kassel is now a place to see 'how they did it', and it's easy to see why.

While countries around the world start to take note, it's frustrating if you happen to be a citizen of the UK. Sure, we've now decided on a tram-train trial (with five vehicles). But compared to other places it all seems a bit limp: the Netherlands' den Haag already has 54 *Regio Citadis*, with 18 more on order, France's SNCF has ordered 31 *Citadis Dualis*, with an option for 169 more, Germany's Karlsruhe has just contracted Bombardier to build 30 tram-trains to add to its already large fleet, deliveries of Siemens *Avantos* to Mulhouse has started... Braunschweig is considering the options...

In the UK we are yet to put out a specification for our five vehicles. Five, which may have to be different to existing designs due to our smaller loading gauge, different platform geometry, and so on. Then even when (if) we get them, they are still only for 'trials'...

Trials of what, exactly? Even the diesel hybrid *Regio Citadis* have now run 1.7mkm - that's over a million miles. They work. Equally, we don't need a trial to tell us we can buy buses more cheaply. We know that.

There are lots of obstacles you can find if you don't want tram-trains, lots of reasons for deciding they aren't a good idea... but that's already taking a negative approach. Surely, we should instead be confident enough to roll the dice, but then to be able to say to potential manufacturers 'we want them like this' rather than 'tagging on' to what someone else wants.

Empowered politicians in Hesse decided they wanted tram-trains, and they got them, even if it took longer than they'd have liked. (Eight years to agree funding, safety rules, build vehicles and a major interchange - complete with tunnel - from scratch would be unbelievably quick in the UK...)

Of course you need to check the system works - but Kassel achieved that without long-winded agonising over a 'trial', that in the UK has significantly changed shape even before it has started.

Why must the UK seemingly always take the lowest denominator option? Rather than a branch line here and a tiny trial there, we ought to be asking 'why not Manchester, why not Birmingham, why not Croydon?'

That is the fantastic vision, but only for those with the imagination, determination - and budgets - to embrace it.

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