



## Consultation response

**House of Commons Transport Select Committee inquiry into the future of light rail and modern trams in Britain**

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## 1. Introduction

1.1 **pteg** represents the seven Passenger Transport Executives of England and Scotland which between them serve more than thirteen million people in Strathclyde ('SPT'), Tyne and Wear ('Nexus'), West Yorkshire ('Metro'), South Yorkshire, Greater Manchester, Merseyside ('Merseytravel') and the West Midlands ('Centro'). Transport for London (TfL) is an associate member of **pteg**. The PTEs plan, procure, provide and promote public transport in some of Britain's city regions with the aim of providing integrated public transport networks accessible to all. The PTEs have a combined budget of more than a billion pounds a year, and are funded by a combination of local council tax and grants from national government. They are responsible to Passenger Transport Authorities (PTAs), made up of representatives of local councils in the areas they serve.

## 2. UK light rail – a success story

2.1 The PTEs are the largest bloc of light rail promoters, and were the first to reintroduce the tram to British city streets with Manchester Metrolink in 1992. Four of the seven currently operational UK light rail schemes were promoted by PTEs. All PTEs have plans for new schemes, or for extensions to existing networks.

2.2 **pteg** recently published a review, by consultants Steer Davies Gleave (SDG), of the record of light rail in the UK. The report ('What Light Rail can do for Cities'), found that UK light rail is popular, with all schemes operating at, or near, capacity at peak times. Overall there has been a 52% increase in patronage since 1999 with significant flows being carried outside the rush hours. This increase has come despite significant increases in fares, and at a time when patronage of the bus network outside London has fallen.

2.3 This success has come despite limitations on the abilities of promoters to secure integration of light rail with other modes – in particular with bus services. Under bus deregulation buses can, and do, compete head on with light rail services. This contrasts with European light rail schemes where bus networks complement, rather than duplicate, light rail systems. But despite these limitations the SDG report finds that integration has been a realised objective of UK light rail schemes. It finds:

- there are numerous successful Park and Ride sites on all systems outside London;
- the level of priority, and effective traffic management, secured by promoters for light rail has improved;
- there are some excellent examples of integrated design of tram stops with bus stations, rail stations and major development sites;
- and there are well developed (voluntary) integrated ticketing schemes in most instances.

2.4 The report also found that UK light rail has improved both the image and the economy of the areas it serves. The report concluded: *'All UK schemes have had positive effects on the image of the city in which they have been built, which has brought benefits in terms of attracting inward investment as well as*

*business and tourist visitors...Beneficial effects on property values, both commercial and residential have, without exception, accompanied implementation of tram schemes in the UK. Tram schemes have played an important part in delivering regeneration and shaping how and where it occurs.'*

- 2.5 On social inclusion, UK light rail is proven to improve access and mobility for people with disabilities. For example interviews undertaken on behalf of TfL among people with disabilities indicate that because the Croydon Tramlink service is both fully accessible and highly reliable, it is becoming more popular than services which are specifically targeted at disabled people – like Dial-a-Ride. Light Rail can also help tackle social exclusion by provide far better linkage between deprived areas and job opportunities. This has also been the case on Croydon Tramlink where the tram almost halved the journey time between the isolated estates of New Addington and Croydon town centre.
- 2.6 UK Light Rail has improved the environment. SDG estimate that 22 million car trips a year have been taken off the roads by light rail schemes. UK Light Rail's safety record is also excellent. In 2001 there were 0.00007 people killed and injured on UK light rail per billion passenger kilometres travelled. The comparable figures for other modes were 196 killed or injured per billion passenger kilometres by bus and coach; 2,335 killed or injured per billion pedestrian kilometres, and 5,549 killed or injured per billion motorcycle kilometres.

### **3. Light rail – part of the public transport solution in the city regions**

- 3.1 Light rail has proved to be successful because of its unique characteristics. In particular it:
- penetrates town and city centres with permanent, visible and acceptable infrastructure;
  - delivers predictable, regular and fast journey times, providing a high capacity service on simple and easily understood routes;
  - operates to a generally high level of reliability due to segregation from other traffic, priority at junctions and contractual incentives to operators;
  - has accessible, well equipped and visible stops;
  - provides a high ride quality throughout the entire journey;
  - can be effectively integrated with new developments and park and ride facilities;
  - creates an opportunity to renew both the fabric of the urban areas it serves, and the image of those areas;
  - delivers permanence of infrastructure, vehicles and operations, creating confidence amongst individuals and business to make long term locational decisions that produce long-term patronage growth.
- 3.2 This helps to explain the high modal shift that UK light rail has achieved, with about 20% of peak hour light rail users having previously travelled by car. At the weekends modal shift can be as high as 50%. Reductions in road traffic of up to 14% after the introduction of tram schemes have been recorded.

#### **4. Are better bus services a viable alternative?**

- 4.1 One consequence of the escalating costs of light rail proposals is that it has become increasingly fashionable to suggest that better bus services can do the job of light rail, at far less cost. There is also an ever widening range of public transport vehicles and systems that aim to provide many of the benefits of light rail at lower cost.
- 4.2 These alternatives to light rail include:
- upgrading the quality and reliability of conventional bus corridors through extensive bus priority, high frequencies and good quality stops, vehicles and infrastructure;
  - superior quality conventional buses - the design of which aims to replicate, both externally and internally, the qualities of a tram;
  - guided buses – buses equipped to use some form of busway, which can be delineated either physically or electronically;
  - hybrid modes – such as trolleybuses which also have their own diesel engine allowing them to operate as conventional buses.
- 4.3 The PTEs' approach is to try and find the most appropriate public transport solution which meets the specific circumstances and challenges of a particular corridor or network. Often this will be through making comprehensive improvements to conventional bus services. All PTEs are involved, with their constituent District Highway Authorities in projects that deliver bus priority measures and whole corridor upgrades.
- 4.4 The PTEs have also been leading the way in pioneering the implementation of guided bus and tram-like bus vehicles. Examples include:
- three operational guided bus corridors in West Yorkshire
  - the planned Leigh guided busway in Greater Manchester - where the intention is to use tram-like buses
  - involvement with First Group over their plans to introduce 'first streetcars' (conventional buses designed to resemble trams) in British cities
- 4.5 However, the unique characteristics of light rail give it significant advantages over bus alternatives which make it the right option for many busy corridors. Some of these are set out in para 3.1, but there are others. Light rail can move relatively high volumes of passengers more efficiently than the bus alternative. Light rail has the potential to carry flows of up to 20,000 per hour (around four times more than conventional bus and twice that of the largest, tram-like bus alternative). It can also carry those greater numbers of passengers more comfortably, rapidly and reliably than the bus alternative. A further benefit of the higher capacity offered by light rail is to reduce the congestion caused by large numbers of buses circulating in city centres.
- 4.6 At higher levels of demand (over at least 2,500 passengers per hour per direction) light rail becomes a cheaper means of providing the same capacity as the bus alternative and leads to even higher levels of benefits. This is because at high levels of demand very large numbers of buses are required to provide equivalent capacity. This entails high staffing and vehicle costs and leads to roads becoming congested with buses.

- 4.7 Light rail's advantages over the bus alternative are reflected in the much higher levels of modal shift that light rail achieves. As set out in para 3.2, peak hour transfer from car to tram is consistently around 20%. This compares with estimates of between 4% and 6.5% resulting from significant improvements to bus corridors. Finally, as the SDG report shows, improvements to bus services (often perceived as potentially temporary) do not have the same catalytic effect on urban regeneration and city image that can be triggered by the tangible and permanent commitment to an area that light rail represents.
- 4.8 Some argue that as new tram-like bus vehicles, operating on guided systems, become available then the characteristics of light rail can be replicated by the bus. However, it should be remembered that the more tram-like the bus system, the more tram-like are the costs. For example significant improvements in the speed and reliability of a bus-based system cannot be secured without provision of extensive segregated sections of route, requiring land and property-take commensurate with that of LRT. Dedicated busways are also difficult to insert into town and city centres in an acceptable way. If LRT levels of accessibility, visibility and security at stops on a bus-based system are required then the costs of these stops will be similar to those of a light rail system.
- 4.9 To conclude this section, the bus will remain the mainstay of public transport provision in the city regions, and there is much the PTEs are doing, and can do, to improve the quality of services. New and more tram-like bus vehicles and systems are becoming available and the PTEs have, and will continue to, pioneer these new options where appropriate. Alternatives to light rail are examined and re-examined, as a matter of course during the development of light rail proposals. However, light rail remains the best choice for many busy corridors with a proven record of providing a high capacity and high quality service which triggers significant reduction in car use and contributes to urban regeneration.

## 5. How can light rail be delivered faster, better and cheaper?

- 5.1 The 2004 NAO light rail report scoped out some of the areas in which light rail could be delivered faster, better and cheaper. **pteg** is committed to working with the Government and the industry to follow up the NAO's recommendations.

### Faster

- 5.2 A report into the comparative performance data from French Tramways systems for **pteg** by Faber Maunsell in 2003 showed that French cities are able to implement light rail schemes much faster than is generally the case in the UK. For example, the implementation of the Lyon tramway scheme took approximately three and a half years - from the beginning of preliminary studies to the opening day of service. It took 15 years for Sheffield Supertram and 13 years for Croydon Tramlink to go through the same process. In France a Mayor can stand for office on a pledge to build a tram scheme and have that tram operational before the end of his or her first term. The NAO found that in the UK 'it takes too long for local authorities to be granted the necessary legal powers for light rail systems and whether schemes will be funded is uncertain'. The protracted approval and procurement process for UK Light Rail schemes leads to both higher development costs and higher construction costs (currently rising at around 10% a year in real terms).

Patterns of development and land-use can also change, as can the policy context in which schemes are evaluated (leading to round after round of scheme reappraisal).

- 5.3 The Government's intention to devolve more of the decision-making process on major schemes, like light rail proposals, could help to speed up the planning process. However, care needs to be taken to ensure that devolution to regional bodies does not become an additional tier of decision making, adding further costs and delays in the procurement and implementation of light rail schemes – the majority of which will always be promoted by sub-regional bodies like PTEs.

#### Cheaper

- 5.4 The significant increases in the cost of new light rail schemes is the reason given by the Government for its decision not to authorise funding for the extensions to Manchester Metrolink and for the new Leeds Supertram and South Hampshire Rapid Transit systems. One of the principal reasons for the higher than anticipated cost of new schemes has been the Government's preference for a form of PFI under which a single consortium finances, designs, builds, maintains and operates a light rail scheme under a thirty year contract. This form of PFI was intended to transfer the risks associated with a light rail scheme to the private sector. These risks include the effect on revenue of aggressive competition from bus operators or changes in labour costs or of private motoring.
- 5.5 On some operational schemes procured in this way, such as Croydon Tramlink, the consortium's calculations of these risks proved to be erroneous; leading to financial losses for the consortium. This has led to a more risk averse and cautious approach from consortia bidding for new schemes. This in turn has led to bids for new schemes being much higher than had been anticipated by scheme promoters. Simpler and more conventional forms of procurement offer the opportunity to reduce the costs of new schemes. For example the costs of Leeds Supertram have been substantially reduced because the promoters - Metro (West Yorkshire PTE) and Leeds City Council - are now proposing to share some of the risks, including during the operation and maintenance phase. This will enable the financial risks associated with the scheme to be better managed and more realistically reflected in bid costs. For example if patronage falls below agreed benchmarks the promoters will cover part of the cost of the shortfall.
- 5.6 The NAO identified other areas where costs could be reduced, including those associated with diverting utilities, and from greater standardisation of tram systems and their components.
- 5.7 One way in which these, and other cost issues, will be addressed is through UK Tram – a new body which will bring together scheme promoters, the industry and the Government. UK Tram will host a series of task groups (which will bring all the relevant parties together) and which will be dedicated to achieving efficiencies in key areas.

#### Better

- 5.8 The introduction of a new light rail scheme should offer an opportunity to recast the local public transport network to ensure that bus services feed into

the new light rail service, and that buses which formerly operated on the light rail corridor can be redeployed elsewhere. This is the approach taken in mainland Europe. In this way light rail becomes part of fully integrated public transport networks, which London and most cities in mainland Europe already enjoy. However, outside London the bus industry is deregulated which means bus operators can - and do - operate in direct competition with light rail.

- 5.9 The Government has raised the prospect of allowing PTEs to promote light rail schemes in combination with proposals for bus 'quality contracts'. This would enable PTEs to franchise a network of complementary bus services on a light rail corridor and prevent wasteful competition. PTEs are considering this option, however under current legislation the process for implementing a quality contract is convoluted, difficult and stacked against the proponent. Although the Railways Bill will amend the legislation to make it easier for PTEs to introduce a quality contract to replace a rail service, it will not, unless amended, reduce any of the obstacles which stand in the way of quality contract proposals which are designed to complement a light rail scheme.

## 6. Conclusions

- 6.1 UK Light Rail is success story. Its quality and reliability means that all schemes now operate near, or at, capacity in the rush hours, with a significant number of users having transferred from the car. It has contributed to regeneration and, given the constraints imposed by bus deregulation, has achieved a high degree of integration with other modes. UK Light Rail takes 22 million car journeys off the roads every year and does so with an admirable safety record.
- 6.2 The bus will remain the mainstay of public transport provision in the city regions and new forms of guided, high quality and tram-like bus systems are being pioneered by the PTEs. However light rail has clear advantages on busy corridors where its greater capacity, speed, quality and reliability have led to far higher levels of modal shift than improvements to bus services have hitherto come close to achieving.
- 6.3 The cost of new light rail schemes has escalated recently – mainly because the Government's preferred form of PFI has not proved to be fit for purpose. **pteg** is committed to working with Government, and the industry, to reduce procurement and other costs, in order to deliver new light rail schemes 'quicker, better and cheaper'.
- 6.4 The PTEs are proud of their role in bringing the tram back to British city streets and remain fully committed to light rail as the right solution for key urban corridors.