



# Light Rail Transit Association Report

(External Relations Group)



## High Level Summit on Light Rail

30<sup>th</sup> November 2011

### Welcome and Morning Session

At the press launch for “Green Light for Light Rail”, Transport Minister Norman Baker indicated that he would call a “High Level Summit on Light Rail” with key players from the light rail sector to discuss how the recommendations of the report can be implemented.

Some sixty three participants from the industry attended at the institution of Civil Engineers at Great George St London

Participants were welcomed by Andrew Braddock Chief Executive of UK Tram who introduced Geoff Inskip the Chair of UKTram. Geoff Inskip thanked the Minister for his commitment to the light rail and tram mode. He indicated that much had been happening in the working groups formed by UK Tram which would be reporting back during conference on progress in key areas outlined in the DFT Green Light report. The reports would be available on the UK tram Website. It was hoped the information would form a dialogue at the Centre of Excellence to be based in UK Tram for future schemes. The Chairman hoped that a wide diversity of talent within the industry would continue to contribute to lowering costs.

The Minister Norman Baker thanked Geoff and UK tram for their sterling efforts he looked forward to hearing of the developments later in the day. He indicated that the Government continued to support light rail and cited Phase 2 In Nottingham, the further development of phase 2/3 Big Bang in Manchester, the Rotherham tram/train extension and the recent announcement of the Chancellor of further vehicles for Sheffield Supertram and the refurbishment of Tyne and Wear Metro and the extension of Midland Metro.

He wished to see effective development of light rail and looked to an Outline of Standards Report being prepared. There had been a 5.5 % increase in this popular mode. Light rail/ tram was safe, reliable and green. It encouraged car users more effectively out of their cars than any other public transport mode. It was important that Capital costs come down. The McNulty Report offered some synergy with the DFT Light Rail report and this should be explored. Sir Roy McNulty had noted this in some recent comments about costs and opportunities in lighter trafficked routes.

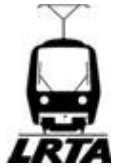
More devolution in funding to local areas had been initiated so that a quicker response could be given to local schemes

Here are the Objectives: Utilities further work was needed. The Minister indicated that he would be meeting utility companies in early December for talks on this area. We needed lighter trackbed construction and simple designs specifications for vehicles that can be shared amongst promoters.

This is he remarked an occasion to get the experts in one room and the industry speaking with one voice. This will bring costs down.

Geoff Inskip thanked the Minister for his remarks and the £200M of investment that had been made.

He thanked the minister for the guidance and vision the report held and also paid tribute to the work of Steve Berry of the DFT.



# Light Rail Transit Association Report

(External Relations Group)



It was important that tramways were part of the answer to improving our cities. Affordability was the key to further schemes –Reduce costs-manage utilities. Good progress has been made on these in the areas noted below.

1. Key areas in moving forward were:
2. Standardisation
3. Market Opportunities
4. Integration with Heavy rail
5. Funding Flexibility with LEPs and TIF and other funding streams
6. Solid Business Cases
- 7.

## **Colin Robey**

spoke on the Governance of UKTram; this was being reviewed, so that the industry talked with a single voice. A Centre of Excellence may be not a prescriptive site but point to operators etc who have had experience in particular fields. This was a thriving industry with the potential for further growth. This is about changing the existing groupings of PTEG/CPT/TFL? LRTF into three groups: Promoters: Operators: Suppliers. We currently don't embrace ULR/PRT and other fixed track modes. It was about sharing best practice with and from UITP and VDV.

In order to keep abreast it was suggested a twice a year forum with papers contributed and or AGM to capture innovation or both would be appropriate

## **Andrew Braddock**

spoke about Besancon and Portland where the key had been, don't redesign the city and make the tramway pay for it but build a simple tramway with simple construction methods. In Portland it had been supported and partly financed by business communities. In France it had used the vestment tax. Another low cost tramway had been planned in Aubagne –this time using the low cost Citadis Compact. Both other systems had used simple tried designs -Skoda Inekon and CAF (using Bombardier City runner floor plan)

## **Ian Brown**

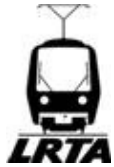
spoke on the creation of Centre of Excellence within the context of the McNulty Report and the devolution of projects down to PTE'S. The Object was not to have a centralised government led centre of excellence. The object was to provide information for schemes to be delivered by cities and the private sector  
Ian circulated a paper (appendix I) for comment drawn from experience at Centro and GMPTE

## **Robbie Owen**

spoke about the planning process and the TWA Act. Two reforms might be needed in the light of Centro and GMPTE experience but Act working well and timescales for schemes had fallen because of a better understanding- so about 11-14 months for planning process. The DFT had helped in this. He made a suggestion there should be an exchange database of utility positioning in streets and grounds available prior to application.

## **Geoff Inskip**

spoke of the development of ULR and PRT and the developing opportunities that McNulty opened for branch lines and new town developments. We needed to develop guidelines for ULR/PRT based on evidence from UITP and DFT and this will be developed by UKTram. We needed to capture the total system costs for ULR and PRT.



# Light Rail Transit Association Report

(External Relations Group)



## **Paul Griffiths**

spoke about Project costs and new technology. There was a need to contain costs using good cost analysis experience. There had to be meaningful cost data package in clear terms from the outset. Detailed costings for Luas, Nexus, TFL and GMPTE would be available by the end of June 2012 on the UKTram website. We had to be aware of cost effects of using conduit style power and super capacitors. Hydrogen technology may play a role in key area of cost reduction in running costs as demonstrated recently in Spain. We had to aware of the costs and benefits of new emerging technology.

## **David Hand**

spoke about utilising construction industry to reduce costs. Utilities have been taking up normally 20% of the project costs. What we needed was a standard comprehensive design at tender such as at Nottingham. A core working group comprising Mott Mac, Vinci and Alstom would look at this. Steve Firth spoke about opportunities for light rail on the Network Rail system. He pointed to operations in Europe in Germany and Holland. Work on the DFT and Network Rail schemes were progressing. This was leading to Guidance for the industry which would lay out the differentiated standards and would draw on and build on experience gain in the forthcoming Sheffield/Rotherham tram/train experiment. There was a developing understanding of light rail within the heavy rail community.

## **Scott McIntosh** from Mott Macdonald

### *Portland Streetcar*

Scott made a PowerPoint presentation setting Portland in context. The city had changed from being a heavy industry town to now having a series of high value technology industries. The streetcar in Portland was a key part of the city centre redesign based round a former Brownfield site which was to become a high density residential area. Business was at the centre of supporting the design of the scheme which to be simple and cost contained and using off the shelf vehicles such as the Skoda Inekon tram. The track was laid in 40cm deep trenches with the base ground compacted after which RUBAR reinforced steel mesh formed in a shallow u was laid. Track was then laid in this with tie bars covered in neoprene and then concreted in up to road surface. There is gutter style running in system .The cost per km taking both schemes together is £15.2 per Km. The tramway had contributed to the development of the residential quarter to some \$3.5B and carried 28M passengers. Streetcars had enhanced the retail activity raising shops in 10th and 11th streets from 10 to 400  
A similar scheme here would be Wirral tram. Scott showed examples of current vehicles that could be bought for £700K.

## **Update on UKTram activities**

Activity 1 Utilities, Crossings, Noise and Vibration

Phil Hewitt, Utilities, Crossings, Noise and vibration

Activity 1 Utilities – high risk limited ability to influence

Phase 1a –Review of works undertaken

Phase 1b – Report of experiences

Phase 2 –Publish Guidelines

Phase 3 – Management of off street crossings standard based on Edinburgh and Croydon publish guidance

Noise and vibration - peer review and examine best practice

Activity 6 Progress in Track Form Design

Peter Adams reported on progress in track form design and pointed to analysis of EU Urban track research. He pointed to ballast less track forms and fast track laying in Bremen plus developments in Manchester. He noted that



# Light Rail Transit Association Report

(External Relations Group)



Appitrack machine track laying would be undertaken at Nottingham. The aim was to see and quantify what benefits are there in the range of track form designs and appraise these on UKTram website.

## Activity 7 Benefits in the Appraisal Process

Paul Cobain reported on the Attributes of the tram in the appraisal process i.e. Modal Characteristics, reliability, preference to bus. Appraising the Modelling and Marketing Process. Information on the appraisal process would become available on the UKTram website

## Activity 8 Commercial Structure

Taylor Ferguson reported on output from this

Revenues – Diligence -new and existing: Sharing mechanisms: Additional incentives e.g. Park and Ride: Penalties e.g. Work place Levy

Utilities- Risk, Public and private: Reduce mode of operations: Standardisation of equipment: Number and Profile of projects: Joint procurement

Risks –Revenue, Utilities, Interface, Delivery, Incentivisation, Competition

Funding – PFI, TiF, Local contribution, longer term loans, Borrow against assets, Investment by pension funds

Consideration of Operation within the EUROPEAN 95 balance Sheet

## Activity 9 Operational Performance Measures

Colin Robey reported on Operational Performance Measures and the variance between Sponsor requirements and operators. The following handouts had been published by UKTram

Group 3-- Signage and Highways

Group 3a Segmented Crossings

Group 4-Operations, noise and vibration

Group 5-Network Rail/Light Rail new outstanding Brief in process

Group 6-Trackform

Group 7- Benefits appraisal

Group 10 –Tender Documents

Group 11 Wheel/Rail Interface

Group 12 Power supplies

Reviewed at the ORR

Guidance notes for street track

Pedestrian Safety

Stray Currents

Highways

Operation of LRT

Support to RSP2

Mandate 464 Euro norms

It was noted that ROGS Heavy rail standards had caused real problems in scheme promotion and design. It was felt bus standards meeting VITAP/UNIFEY should be adopted

In terms of concessions problems operators saw 7 areas of saving

Activity 10 Wheel rail interface



## Light Rail Transit Association Report

(External Relations Group)



### **David Keay**

spoke about the development of advice on different wheel and rail profiles. A study by Manchester University identified 6 or 7 different ones in the light rail environment. An operational experience and trialling on wheel and rail interfaces would bring this advice to maturity and recommendation. Once achieved this would be forwarded to the guidance and standards committee Co-operation from the Urban Rail Study Group looking a gaps and analogies in the operation of trains and LRT. They would earmark areas that could be developed without problems, others where there would be adaptation and further development and ones that could only apply to urban rail situations and metros.

In terms of RSP2 one should look to the ORR website. Further guidance will be developed on Brakes and Drives. Further good practice could disseminated through Seminars.



# Light Rail Transit Association Report

(External Relations Group)



## Afternoon Session

In the afternoon participants were allocated to session groups. The groups were as follows and the report of their discussions is contained below their group headings.

### Lower cost schemes

#### Summary Comment

Make sure there is adequate time for bidding and planning details of scheme

Good rigorous proof of whole life costs –Revenue and Capital Costs

Good route planning to prevent planning failure e.g. Connectivity to key points, stations, retail, park and ride, hospitals, housing density, regeneration areas

Small start scheme to promote acclaim and drive demand for more

One team approach that can develop a rolling programme

Separate out the costs that do not apply to the tramway

Analyse the cost benefit distortions and don't forget the societal, green and healthcare issues

Carbon credits in value and benefits

Simplify track forms and vehicle designs (Besancon and Portland)

### Standard Implementation Plan and Centre of Excellence

#### Summary Comment

Set within the context of the EU regulations

UKTram has to demonstrate it is worth listening to

UKtram however is not a setup client

Provide outline of Government set up costs and best guidance to existing and potential promoters

Emphasis on reducing timescales and the cost of authorisation

Build on expertise and best practice at every stage

The role of UKTram should be to support schemes from contemplation to a fully functioning LRT system

### Utilities and Interfaces Consultation

#### Summary Comment

Section 84 of NSW act still a fairly blank canvas as is the Diversionary Works Code from the late 1980s Need to work with the Highways and Utility Committee and DFT to gain further development of the Code.

Agreement and acknowledgement that not all utilities need to be moved or diverted.

Utilities should be categorised into Apparatus priorities A, B or C

Pressure should be applied to Undertakings to record accurately where their Apparatus is deployed.

Provision of Works Section 85 where apparatus has been installed within 5 years should be extended so that the owner of the apparatus bears costs

If it is agreed that Utilities are not moved there should be a Later Provision for Works Fund to deal with Maintenance Events.

There should be information on prevalence of failing apparatus through the street works register

In agreeing dealing with status quo or movement of categories of utilities there should be Standard Templates of Agreement



# Light Rail Transit Association Report

(External Relations Group)



## Ultra Light Rail and PRT

### Summary Comment

It was agreed that further Guidance should be compiled on Ultra Light Rail and Personal Rapid Transit Information on practice in Rural contexts, Eco-towns, Airports, Leisure and Retail Parks, Park and Ride, City Centre Circulators and light freight in Shopping and Retail Development.

Was PRT a taxi rank rather than a bus stop?

Important consider other rubber tyred guidance systems

What were the market opportunities?

What are the key areas for track and vehicle development?

## Future Technologies Infrastructure and Operation

### Summary Comment

Looking at what they are and what they offer in saving cost, time and efficiency of operation.

Areas such as super capacitors, Slab track, ballast less tracks, under track power such as Primove,

Ultra light technology, Lightweight OHLE, Lightweight vehicles

Create an Independent Advisory Panel to evaluate innovations

Review methodology and trials

## Heavy Rail Conversions

### Summary Comment

Transfer Infrastructure Management –PTEs?

Why convert –rationale and criteria –LRT, Train/Tram or ULR?

List a group of potential candidates and build a series of supporting business cases

Widening the knowledge base in Network Rail of LRT and advantages

Started road map on Guidelines for Train/tram and Tram/train

Investigating who is our client base within the realm of the McNulty Report

## Conclusion

Summing up Geoff Inskip, Chair of UKTram thanked all for their contributions and assured the Minister that the working groups making their initial interim comments and deliberations today had agreed that they would continue their work. UKTram was ready the rise to challenge that the Minister had set. In reporting back to Norman Baker it was agreed, and the Minister was quite forceful in this, that the working parties would report back not in twelve months but in six months time to him in a similar assembly.

The Minister once again thanked everybody for their work and after noting the summary points looked forward to further progress being achieved in six months.

Iain MacDonald,  
External Relations Group,  
Regional Officer LRTA



## Light Rail Transit Association Report

(External Relations Group)



### HIGH LEVEL TRAM SUMMIT – ATTENDEES

<i>First Name</i>	<i>Surname</i>	<i>Organisation</i>
<i>Peter</i>	<i>Adams</i>	<i>Centre</i>
<i>Mostaque</i>	<i>Ahmed</i>	<i>Dept for Transport</i>
<i>Neil</i>	<i>Ambrose</i>	<i>Scott Wilson</i>
<i>Ian</i>	<i>Ambrose</i>	<i>Network Rail (afternoon only)</i>
<i>Norman</i>	<i>Baker MP</i>	<i>Minister, Dept for Transport</i>
<i>Steve</i>	<i>Berry</i>	<i>Dept for Transport</i>
<i>Mary</i>	<i>Bonar</i>	<i>Stephenson Harwood</i>
<i>Andrew</i>	<i>Braddock</i>	<i>UKTram</i>
<i>Sheena</i>	<i>Briggs</i>	<i>Docklands Light Railway Ltd</i>
<i>Ian</i>	<i>Brown</i>	
<i>Bob</i>	<i>Chard</i>	<i>ULR (LRTA</i>
<i>Paul</i>	<i>Cobain</i>	<i>Centre</i>
<i>Chris</i>	<i>Coleman</i>	<i>Metrolink RATP DEV Ltd</i>
<i>Graham</i>	<i>Coombs</i>	<i>Railway Industry Association</i>
<i>Simon</i>	<i>Coulthard</i>	<i>Network Rail (needs to leave by 3.30pm)</i>
<i>Paul</i>	<i>Dawkins</i>	<i>GHD (Consultants)</i>
<i>Andy</i>	<i>Dixon</i>	<i>Parsons Brinckerhoff</i>
<i>John</i>	<i>Dowie</i>	<i>Dept for Transport</i>
<i>Phil</i>	<i>Evans</i>	<i>Pre Metro Operations Ltd</i>
<i>Taylor</i>	<i>Ferguson</i>	<i>Grant Thornton</i>
<i>Steve</i>	<i>Firth</i>	<i>Tramco</i>
<i>Mike</i>	<i>Flynn</i>	<i>MF Associates</i>
<i>Nigel</i>	<i>Foster</i>	<i>Arup</i>
<i>Elaine</i>	<i>Greenwood</i>	<i>Bombardier Transportation</i>
<i>Paul</i>	<i>Griffiths</i>	<i>Centra</i>
<i>Jim</i>	<i>Harkins</i>	<i>All Party Parliamentary Light Rail Group</i>
<i>Roger</i>	<i>Harrison</i>	<i>Keolis UK / Chair, Tramlink Nottingham</i>
<i>Dave</i>	<i>Haskins</i>	<i>WYPTA</i>
<i>Phil</i>	<i>Hewitt</i>	<i>London Tramlink</i>
<i>Geoff</i>	<i>Inskip</i>	<i>Chair, UKTram</i>
<i>Colin</i>	<i>Jefferson</i>	<i>Pullman (ULR)</i>
<i>Howard</i>	<i>Johnston</i>	<i>Mainspring (LRTA)</i>
<i>Tom</i>	<i>Jonson</i>	<i>Norton Rose LLP</i>
<i>David</i>	<i>Kaner</i>	<i>WT Burden (ULR)</i>
<i>Micheala</i>	<i>Keating</i>	<i>Veolia Transdev</i>
<i>David</i>	<i>Keay</i>	<i>Office Rail Regulator (ORR)</i>
<i>Tim</i>	<i>Kendell</i>	<i>Dept for Transport (Tram-train)</i>
<i>John</i>	<i>Leech MP</i>	<i>Chair (APPRLG)</i>
<i>Malcolm</i>	<i>Lesley</i>	<i>TramPower (ULR)</i>
<i>Martin</i>	<i>Lowson</i>	<i>ULTRA PRT</i>
<i>Ian</i>	<i>Mannering</i>	<i>Merseytravel</i>
<i>Iain</i>	<i>McDonald</i>	<i>LRTA</i>
<i>Scott</i>	<i>McIntosh</i>	<i>Mott Macdonald (presenting)</i>





## Light Rail Transit Association Report

(External Relations Group)



<i>Will</i>	<i>McWilliams</i>	
<i>Aaron</i>	<i>Nelson</i>	<i>Bircham Dyson Bell LLP</i>
<i>Robbie</i>	<i>Owen</i>	<i>Bircham Dyson Bell LLP</i>
<i>Clive</i>	<i>Pennington</i>	<i>Manchester Metrolink</i>
<i>Udo</i>	<i>Pope</i>	<i>Pannone LLP</i>
<i>Mark</i>	<i>Ranger</i>	<i>Bishops Stortford ULR</i>
<i>Fred</i>	<i>Roberts</i>	<i>Midland Metro</i>
<i>Colin</i>	<i>Robey</i>	<i>Centro</i>
<i>John</i>	<i>Rooke</i>	<i>STRAIL (UK) Ltd</i>
<i>Paul</i>	<i>Rowen</i>	<i>LRTA</i>
<i>David</i>	<i>Rumney</i>	<i>Centro</i>
<i>James</i>	<i>Skinner</i>	<i>Sustraco (ULR</i>
<i>Stephen</i>	<i>Smith</i>	<i>CRT UK</i>
<i>Mark</i>	<i>Staniland</i>	<i>Balfour Beatty Regional Civil Engineering Ltd</i>
<i>Mark</i>	<i>Terry</i>	<i>Mott Macdonald</i>
<i>Paul</i>	<i>Turner</i>	<i>TAS Partnership</i>
<i>David</i>	<i>Walmsley</i>	<i>CPTUK</i>
<i>Rob</i>	<i>Whyte</i>	<i>Alstom</i>
<i>Robin</i>	<i>Wolfendale</i>	<i>ULR</i>



# Light Rail Transit Association Report

(External Relations Group)



## Agenda for Department for Transport Tram Summit

Wednesday 30 November 2011 - 9.00 to 17.30 –

One Great George Street

### London

Start	Subject	Speaker	Finish
9.00	Keynote Address	Norman Baker	9.20
9.20	UKTram Response	Geoff Inskip	9.30
9.30	The UKTram Action Plan	Working Group Leaders	10.15
	UKTram Governance & Reporting, working with UITP/VDV on best practice, cost effectiveness initiatives, annual reporting to DfT - Geoff Inskip		
	Review of UKTram Activity outputs, tram design standards, signing issues, Network Rail interface, operations & maintenance competence - Colin Robey		
	Developing a uniform basis for system design, examination of lower-cost schemes (Besancon and Portland Streetcar) - Andrew Braddock		
	Creation of a "Centre of Procurement Excellence" - Ian Brown		
	TWA guidance on best practice - Robbie Owen		
	Review of Ultra Light Rail and Personal Rapid Transit - Geoff Inskip		
	Project costs & opportunities for new technology - Paul Griffiths		
	Utilising construction industry expertise to reduce costs - David Hand		
	Opportunities for light rail on the Network Rail system - Steve Firth		
	Round-up of the above and UKTram Annual Reports - Geoff Inskip		
10.15	Presentation - Portland Streetcar	Scott McIntosh	10.45
10.45	Refreshment break - tea/coffee		11.15
11.15	Output from UK Tram Activities	Andrew Braddock + Group Leaders	11.50
	Activities 1, 3A & 4: Utilities, Crossings, Noise & Vibration: Phil Hewitt		
	Activity 6: Trackform Design: Peter Adams		
	Activity 7: Benefits in Appraisal Process: Paul Cobain		
	- Activity 8: Commercial Structure: Taylor Ferguson		
	- Activity 9: Operational Performance Measures: Colin Robey		
	1 Activity 11: Wheel/rail Interface: David Keay		
	Overview of remaining Activities: Andrew Braddock -		
11.50	Completion of UKTram Activities	Colin Robey	12.15
	Tram Design Standards; Signing of Tramways & Highways Interface; Network Rail Interface; Light Rail Benefits; Operations/Maintenance Standards		
12,15	Review Process for Activities	Steve Firth	12.30
*	Creation of UKTram Guidance & Standards Committee		
0230	Refreshment break - lunch		13.15
13.15	Introduction to Workshop Sessions and future development of UKTram	Geoff Inskip	13.30
13.30	Workshop Sessions: Development of Action Plan		15.30



## Light Rail Transit Association Report

(External Relations Group)



	Each group to be allocated participants from disciplines represented at Summit 1: <i>Lower Cost Schemes - lessons from elsewhere: Andrew Braddock</i> 2: <i>Standard Implementation Plan and Centre of Excellence: Ian Brown</i> 3: <i>Utilities and Light Rail Interfaces Consultation Exercise: David Rumney</i> 4: <i>Ultra Light Rail and Personal Rapid Transit: Geoff Inskip</i> 5: <i>Future Technologies - Infrastructure and Operation: Paul Griffiths</i> 6: <i>Heavy Rail Conversions: Ian Ambrose</i> Action Plan Leaders to prepare summary of discussions		
15.30	<i>Feedback from Workshops</i>	<i>Session Leaders</i>	16.00
16.00	<i>Refreshment break - tea/coffee</i>		16.30
16.30	<i>Feedback to Norman Baker</i>	<i>Workshop Session Leaders</i>	16.50
16.50	<i>Summing-up &amp; Future Plans</i>	<i>Geoff Inskip</i>	17.00
17.00	<i>Close</i>		
17.00	<i>Networking opportunity</i>		17.30



# Light Rail Transit Association Report

(External Relations Group)



## Ian Brown CBE UK Tram

### The Client role

I recorded in Sheffield that Geoff Inskip suggested, and we agreed, to jointly take on evolving a proposal in response to the Steve Berry publication 'Green Light for Light Rail' although the report as far as I can read is obsessed with looking at ways of making new starts cheaper rather than overall value for money, and visits to economy class tramways overseas. Having been visited over the years by just about every system in the world to see how we deliver, this is curious and amateur to say the least. Worse still there seems to be no commitment to any go ahead if targets (which are not stated) are met. I.e. a challenge without a prize. I think this is actually quite dangerous, having witnessed DLR originally built to lean budget then rebuilt as a result of a meagre and inadequate specification, but I suppose in terms of the political timescales this potential waste doesn't matter.

UK Tram has acted promptly and properly in engaging with government and indeed positioning itself in the potential role as advisor to government on the components and standards that if managed properly may result in efficiency of procurement rather than simply downgrading the specification. Success, however, is relating all this to the expansion of existing UK systems and potential new UK city starts, implying that over time, a commitment from government that investment will be forthcoming if certain targets are met. The standard way of doing this on rail projects is through the benefit/cost ratio procedure. In the case of tram schemes we have trouble both with an acknowledgement of the benefits plus concern about cost and risk. This exercise is about cost.

The Treasury have undertaken many exercises on project delivery and have concluded that most over run on cost or that the promoters in their enthusiasm to promote a scheme become oblivious to cost risk. This has resulted in the 'Optimism Bias' approach which adds say 60% to the cost of a scheme in the minds of those who appraise the scheme. The go ahead for the London Crossrail Metro scheme was based on convincing government that Crossrail as 'client' was equipped to manage cost risk as well as the specific exercises on not downsizing the specification, but scrutinising all costs, and indeed ensuring designs were fit for purpose.

The element down to us I think refers to my own view and indeed experience that success is really about establishing an 'informed client' role. All the exercises UK Tram has embarked upon are important, however if not applied by an 'informed client' success is not guaranteed. Where there is one egg DLR, Croydon, Manchester and West Midlands we see success in delivery, where there is not egg Edinburgh we do not see success. It is basically as simple as that. The governance or financial model is also important but a contract structure in itself cannot deliver a light rail project given its many elements and indeed a continuous change control process, as the project is on our streets with complex and changing planning and political requirements. However, as with Crossrail the task is to be able to demonstrate that the 'client role' is in place before a scheme is authorised. This is quite difficult for a new start as it requires investment in forming a client team and indeed gaining experience with that client team. Gaining experience before a scheme is started is very difficult, therefore such proposals usually rely on consultants.



# Light Rail Transit Association Report

(External Relations Group)



## **Governance models for light rail.**

The potential role of UK Tram largely depends on the governance structure for light rail, so options here are considered first.

Centralised project delivery - through some sort of agency An option often quoted in the rail industry is to establish a central project and procurement agency. Despite such pressures, of central expertise, learning the lessons of procurement etc, such a model was not applied to Network Rail projects, or even to Transport for London projects. The reason is interface with the local geography of the existing operational railway and the planning and stakeholder interface. The DLR client team has delivered project after project on the DLR but a dedicated separate team was set up for Crossrail.

For light rail the interface with the City is even greater than for a segregated rail system so a remote centralised project team approach can be relatively easily dismissed. Accountability issues would also dismiss such an option, as would the question of where such a body would lie, as there is no Network Rail for the light rail industry.

## **Government delivery**

A variant on this would be to set the government up as client. Such a model was used for the Thameslink project as it was deemed to be of national significance. However delivery was through Network Rail who set up a dedicated, i.e. local, team. Government were equipped to fund the scheme but the 'client side' was restricted to output requirements as apart from the delivery sense under consideration here. Such an approach was not applied to Crossrail, also designated as a scheme of national significance. This is relevant to the light rail issue as with Crossrail, the funding, planning and stakeholder management issues were a much greater proportion of the project than Thameslink.

Additionally, experience has shown that Network Rail needs a strong client team if they are to deliver to a realistic price or timescale. The lack of progress with tram-train is an example of this.

## **Delivery by Cities**

The model adopted for UK light rail so far is to establish a local client contracting with the private sector for delivery through a range of financial structures. Over reliance on complex financing structures is an issue as apart from direct contracting etc., but the main issue depends on the robustness and experience of the client. GMPTE, for example, is now equipped to implement any amount of incremental light rail schemes, providing timely funding is in place. Agonising over funding and the resultant project uncertainty increases costs. The risk premium and indeed other costs should decrease with a continuous programme of development, including more established procedures with utilities. Additionally revenue will also increase as network benefits can be applied to incremental schemes.

All other existing UK light rail cities particularly those with authorised extensions such as West Midlands and Nottingham are also well placed to evolve strong client teams with project, planning and stakeholder experience. At the other end of the experience scale, cities with no core light rail system, including significant ones such as Leeds, Liverpool, Glasgow and Cardiff are at a considerable disadvantage. This has led to all sorts of pressures to develop novel solutions, and indeed where a new start is forthcoming, such as in Edinburgh, significant cost/risk exposure owing to the lack of a strong client.

## **Delivery by the private sector**

The nearest example of a modern lrt system being delivered by the private sector essentially without a strong client role was the initial construction of Croydon Tramlink. Many UK and US tram and interurban systems were constructed this way first time round, often in association with city or local authorities. This is essentially a variant on city delivery as securitisation of the farebox for capital construction requires supplementing by an additional income stream, as with Croydon.



## Light Rail Transit Association Report

(External Relations Group)



### **Towards the definition of a role for UK Tram in the 'Client' area**

UK Tram has already been given the opportunity to advise on issues such as utility diversions on standardisation, also sharing best practice on cost effectiveness, procurement procedures and design standards. It should continue to do this with vigour, so establishing UK tram as the centre of excellence. Having achieved this and so potentially possessing something of value, the question here is whether UK Tram should also have a role in the 'client' area. The above evaluation suggests that cities remain in the best place to act in the client role. It also suggests a range of self sufficiency for light rail schemes from 'established,' through 'developing' to 'at the starting gate.' Any role for UK Tram must reflect this.

Also of concern is varying concepts of light rail, again starting with 'established' through to 'novel exploration'. UK Tram has a potential role in addressing this.



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## Proposal - in the client area.

UK Tram should not attempt to set itself up as a client for light rail projects. It should be funded by government to build on the experience already held by its member organisations with a view to providing advice to government and to existing and potential light rail promoters in the following areas.

The objective would be cost reduction achieved by providing advice to promoters to optimise the definition and governance of potential projects, set up effective client teams and also reduce the timescale (and hence cost) of authorisation of schemes by building on established experience at the different stages of a light rail project.

-Early contemplation of a light rail scheme by city authorities Advice on;

Selection of the appropriate solution ranging from heavy metro through light rail to bus

1. Conventional i.e. proven systems, and novel systems.
2. Tram-Train and Network Rail issues
3. Integration with other modes issues
4. Infrastructure and rolling stock options
5. Business case procedures
6. Standards and best practice
7. Planning procedures
8. -Light rail proposals
9. Advice on;
10. Funding and governance models
11. Setting up the client role where it is required
12. Procurement procedures
13. -At approval and delivery stage
14. Advice on;
15. Setting up the client role where it is required

Additionally, UK Tram would be the first port of call when government are evaluating schemes so reducing evaluation costs of consultants. This would require careful positioning versus the UK Tram lobby role which would necessarily become informed general advocacy.

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