

LR4F

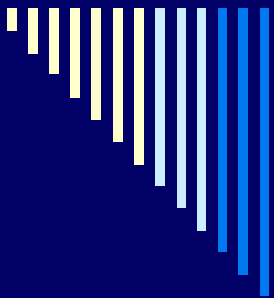
Light Rail for Freight

Presentation to
All-Party Parliamentary Light Rail Group

London, England – 04 March 2008

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LRVs – Grenoble

Photographs: www.railway-technology.com





Trends in UK Freight

- HGV driver shortage
 - VLCCs, super-ports, short-sea shipping
 - Two-way flows (import, export + internal distribution)
 - Implications for regional ports & environs
 - Rising energy/delivery costs
 - Environmental impact/global warming

 - > Rationalised supply chains
 - > Freight consolidation
 - > Modal shift policies (road to rail)
-



Current urban deliveries

- ❑ **Large trucks, multiple stops**
 - ❑ **Low load factors; negligible backloads**
 - ❑ **Variable and unreliable delivery times**
 - ❑ **Poor vehicle utilisation; low speed**
 - ❑ **High but potentially reducible costs**

 - ❑ **> negative impacts on air quality, safety, traffic congestion and public perceptions**

 - ❑ **Powered by diesel; unsustainable?**
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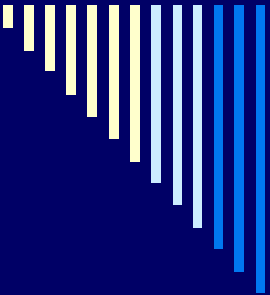
Future urban deliveries - 1

- Large truck/container deliveries to break-bulk warehouses and freight consolidation centres (FCCs)
 - Telematics supports automation of warehouses and FCCs, enables freight tracking, better security etc
 - Consolidation of 'ship-loads' to 'shop-loads'; final deliveries using trucks of appropriate size
 - *58 subscribing stores in Bristol's Broadmead have reduced truck deliveries by 76%*
(www.start-project.org)
 - *>Higher load factors, fewer deliveries*
-



Future urban deliveries - 2

- FCCs (or converted warehouses) are an essential component
 - Consolidation to pallet-size loads permits delivery by *light rail*
 - LR networks extended into FCCs
 - Purpose-built freight-trams deliver to retail centre spurs/store sidings; precise delivery times
 - Final kilometre by electric vans
 - *> electrifying the supply chain...*
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Freight-Trams – Dresden v and Amsterdam >

Photographs: www.citycargo.nl





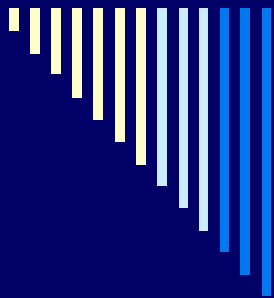
FCC + LR4F > optimal delivery

- Combines efficiencies of freight consolidation, electric traction, steel-on-steel, roro technology....
 - Reduces truck movements in urban centres; better fleet utilisation
 - Improves overall supply chain efficiency
 - Higher utilisation of LR networks
 - **> air quality, safety, security, efficiency**
 - **Powered by electricity; more sustainable**
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Unlocking this opportunity...

- Work with the private retail and freight sectors; seek Government facilitation
 - *LR can serve the retail sector in three ways:*
 - *by carrying customers and staff*
 - *by conveying freight...*
 - *by advancing their green agenda*
 - Support establishment of FCCs on peripheral sites
 - Support investment in LR networks
 - Ensure LR networks are designed for passengers and freight
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London's DLR ...

Courier service: Canary Wharf < > The City?

Freight: Lewisham > Canary Wharf, The City?

Recyclables: The City > Barking Reach?

Photograph: www.railway-technology.com



Is LR4F a distraction?

- Apparent fear that LR operations and delivery of new LR networks may be undermined
 - Professional and conceptual barriers: passengers or freight; passengers and freight?
 - **Whither ‘integrated transport’? ‘making best use’?**
 - **Freight complements business case for LR with an additional revenue stream**
 - **Creates important allies**
 - **LR + LR4F is the sustainable, low-impact, dual-use and popular urban transportation solution**
 - **LR4F – the potential invites further investigation...**
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Next steps...

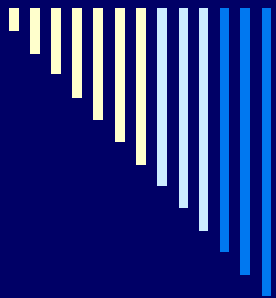
- Awareness and interest in UK/Ireland
 - Further presentations upcoming
 - Scoping study proposed (*academic and consultancy partners in place*)
 - *Identify feasibility and potential*
 - *Understand distribution of benefits and disbenefits*
 - *Propose specific route additions in tram-cities*
 - *Augment the business case for LR in the UK*
 - Funding?
 - EC involvement possible – a pan-European issue
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Light Rail or Bus?

Bus/guided bus/trolley-bus/fttr or LRV/tram?

- Rail, metro and LR preferred by car-users
 - LR is capable of achieving substantial modal shift
 - LR - lower emissions and fewer sources
 - LR is more sustainable; improves the environment
 - LR's permanence optimises land use decisions;
buses cannot provide that assurance
 - LR is freight-capable; buses are not
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LRVs – Nantes > and Valenciennes v

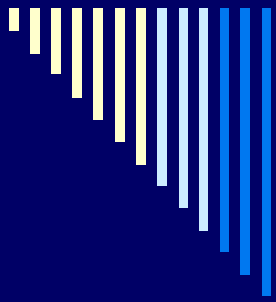
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In conclusion...

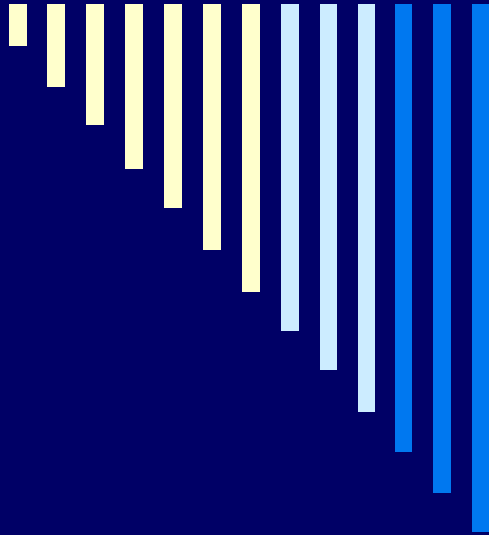
- LR4F represents an unexploited middle-tier in urban logistics
 - If LR4F were embraced, it would create significant cost savings and strategic advantages for UK importers, exporters, retailers, freight companies (and consultants)
 - **LR + LR4F is a silver bullet for urban liveability and accessibility, environmental improvement and traffic congestion**
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LRVs – Dublin > and Madrid v

Photographs: www.railway-technology.com





Thank you!

v1.0 – 05 December 2007

v1.1 – 13 December 2007, 17 December 2007

v2.0 – 06 February 2008, 07 February 2008

v2.1 - 04 March 2008



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