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A review of rail freight initiatives in the urban supply chain

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RGS-IBG Annual Conference, 30 August 2013

Structure of presentation

- Desk-based study as part of a larger project
- Rail freight activity in London
- Literature review of urban rail freight initiatives across Europe (excluding UK)
- Specific search for examples of rail freight at or near to key stations
- Future research directions

Goods lifted by rail on journeys to, from and within London by commodity, 2007-2011 (million tonnes and percentages)

Commodity	2007	2008	2009	2010	2011
Construction	4.95 (80%)	5.83 (80%)	5.39 (80%)	4.88 (77%)	5.99 (82%)
Waste	0.65 (11%)	0.88 (12%)	0.85 (13%)	1.00 (16%)	0.64 (9%)
Other	0.54 (9%)	0.59 (8%)	0.47 (7%)	0.47 (7%)	0.72 (10%)
TOTAL	6.14 (100%)	7.29 (100%)	6.71 (100%)	6.36 (100%)	7.35 (100%)

Source: Network Rail data processed by MDS Transmodal

Typical freight trains serving London





“Other” rail freight in London

- cars and car components (within the UK and to/from Spain via the Channel Tunnel)
- intermodal traffic to/from Poland
- consumer goods for Tesco
- mail services for the Royal Mail
- seasonal fresh produce from Spain
- 2012 trial of retail products to Euston station – so far a one-off

- so evidence of non-bulk and higher value flows, but limited use towards end of supply chain

Summary of rail freight in London

- Already sizeable rail freight flows taking place in London, largely hidden from view
- Range of rail freight terminals, even in inner London (though many are company- and/or commodity-specific)
- Construction materials and waste dominate tonnes lifted
- Rail freight critical for big projects (e.g. Olympic Park, Crossrail)
- Other traffic only 10% of London's rail freight activity (less bulky and higher value products) – but shows rail's capabilities in urban area
- Complex requirements are often barriers to long term success
- Limited consideration of "logistics" rather than just rail transport

Example of relevant rail initiatives

Paris (Monoprix)

- daily service carrying homewares, personal care goods and soft drinks from two warehouses on edge of Paris
- goods transhipped to road at rail-served logistics centre in Paris-Bercy:
  - rail carries 30% of flows for almost 90 shops in central Paris
  - natural gas vehicles used for onward distribution
- more costly than ‘road only’ solution, but substantial environmental and social benefits

Paris (Sogaris)

- public-private organisation specialised in developing urban logistics facilities to meet sustainability and business objectives
- often a rail component:
  - multimodal logistics platforms to serve whole urban areas
  - consolidation centres (‘logistics hotels’) in key parts of city (e.g. near Gare du Nord)
- proposals for schemes elsewhere in France, Belgium and Luxembourg

Other initiatives (1)

- Rome: Fresh Food Centre S.p.A.
  - planned rail shuttle for fresh fish over 30km from logistics platform to inner city DC
  - 18 stores to be served by onward road movement
  - 2.2 tonnes per night expected, replacing 4 road trips
- Berlin:
  - inner-city logistics centres with container rail services for customers including house moving company and department store
  - rail services possibly no longer active

Other initiatives (2)

- Vienna:
  - planned rail freight into city for onward movement on cargo tram circle line around city centre with short final road delivery
  - concept unsuccessful:
    - more expensive and complex compared with road
    - cooperation/competition issues among participants
    - perceived systems and service level disadvantages

Barriers preventing successful urban rail freight operations

- rail network and terminal limitations, with legacy effects
- insufficient volumes aggregated for viable rail services
- localised opposition to rail terminals in cities – wider benefits vs. local negative impacts
- greater supply chain costs and complexity
- lack of political understanding and support

Key issues and future research directions

- Narrow range of European urban rail freight examples
- Limited detail about operating characteristics of schemes mentioned
- Often not clear on current status of initiative
- Sometimes “urban” rail activity by virtue of location of terminals, rather than to serve city area

The past….or the future of urban freight?

