

SUGAR

Delivery Service Plan

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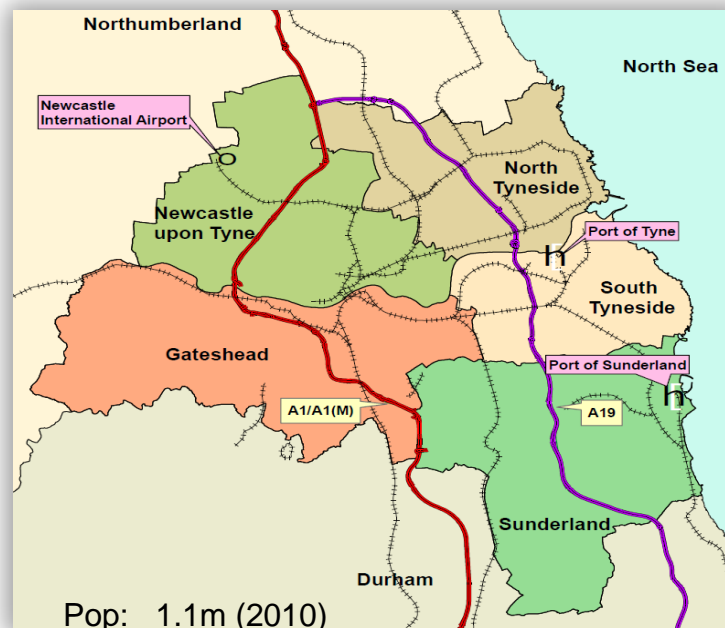
Newcastle University

Palma de Mallorca, 22nd September 2011



Tyne and Wear Freight Profile and Figures

Freight in T&W (Source: LTP3, 2011)	2008	2009	Notes
	(in million tonnes)		
Road (HGV)	22	18	main route: A1, A69 (to the west), A19
Port of Tyne	5417	3540	key shipborne traffic
Port of Sunderland	805	651	
Rail			In 2010: 307 train per week through Tyne Yard (52% loaded train carrying imported coal)



Movement of Goods by road in the Region (in 2008, source: Newcastle city council)	Tonnage (millions)
With origin in the North East	78.1
With destination in the North East	75.6
Travelling within the North East	53.4
Travelling from the North East to Other regions	24.8
Travelling from the Other regions to North East	22.2
Total Road Freight	100.4

Tyne and Wear Profile and Figures

Newcastle is a historic city with relatively narrow streets, unsuited to modern large lorries

Growing volume of LGV over the years in the region has caused challenges for emissions, parking and congestion and deterred public transport users, cyclist and pedestrians with associated road safety issues.

Figure 1: LGVs and HGVs licensed in Britain, 1950-2005

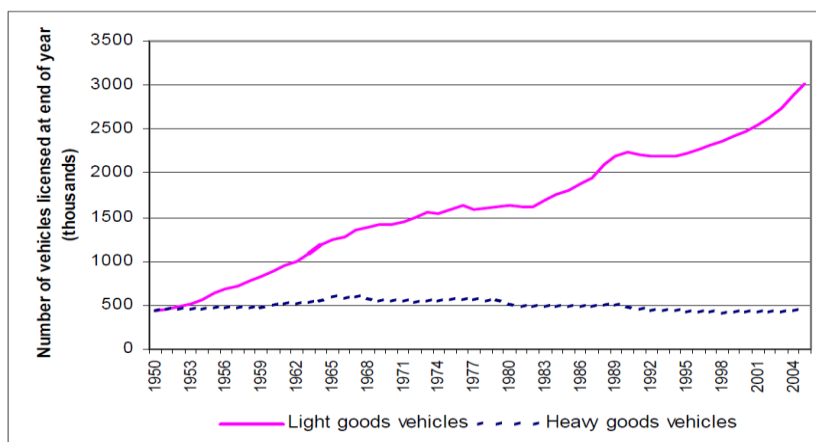
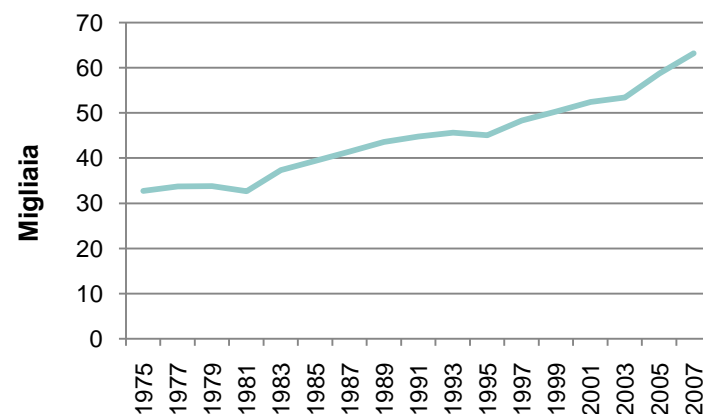


Figure 2: LGV in Tyne and Wear region



(Source: Browne et al, 2007 and Newcastle city council)

Urban logistics in the Newcastle city centre

Main shopping centre (Eldon Square est:1976): mixed-use city centre regeneration with modern shopping, offices, flats and leisure centres

76% delivery to the stores in Eldon Square: 4-6 per week

42% stores receiving 0-3 deliveries per week

5% stores receiving 13-15 deliveries per week

Stores tend to take deliveries on week days Monday-Friday (63%), 25% receive deliveries Monday and Saturday, and 8% on Monday and Sunday

Type of service vehicles: rigid lorry (45%), light vans (32%), articulated lorry (16%)

Local Travel Plan (LTP)

Local Government Act 2000 defined local authorities' role to enable 'community leadership' to obtain a (sustainable) community strategy and monitor performance of service areas with a set of national indicators (including CO2 emissions and congestion)

The Planning role of Local Authorities: 2004 Planning and Compulsory Purchase Act lead to the formation of Local Development Framework (LDF) which simply is document of statutory development plan status. Local planning authorities are charged with seeking development and regeneration strategy that addresses regional economic and housing goals and there LTP which also justified by Transport Act 2000 that require councils to prepare objectives and policies for transport and how the objectives are to be achieved.

Local Travel Plan (LTP)

LTP covers the planning and delivery of a range of transport schemes and programmes in the conurbation (in this case, Tyne Wear) to create faster, safer, less environmentally damaging travel whilst increasing accessibility and travel choice for its residents

T&W LTP1 (2001-2006:) £150 million invested in the region with strategic major schemes including (Sunderland) Metro extension, new high quality public bus services, and over 15,000 transport schemes, Freight Quality Partnership starts and *thrives*. (Unlike many others in UK)

T&W LTP2 (2006-2011): new bus station at Haymarket, new quality bus services, Metro re-invigoration programme, DRT, park and ride facilities and more of sustainable transport infrastructures

LTP3 (2011-2021) has just started with target to meet fully integrated sustainable transport network, allowing everyone the opportunity to achieve their full potential and have a high quality of life with efficient movement of *people and goods* within and beyond Tyne and Wear.

Freight link to LTP in Tyne and Wear

LTP1 underlined sustainable distribution (freight) and produced freight route maps

LTP2 focused on the development of the Freight Quality Partnership, freight consolidation facilities, and strategic route signing

LTP3 has expanded the freight policy from the Tyne and Wear Quality Freight Partnership agenda:

- Freight route mapping
- Signage
- Truck Information Points (TIP)
- Lorry Parking
- Fleet Recognition Scheme
- Freight Consolidation
- Freight on rail
- Low Emission Zones



Tyne and Wear Freight Quality Partnership



(Established: 2005)

<http://www.tyneandwearfreight.info/>

***The Nature of Freight* report (Faber Maunsell, 2004) identified T&W freight issues:**

- Congestion at A1 around Metro Centre and Team Valley
- Some cases of inappropriate use of route by goods vehicle
- Popularity of 'No car lanes' use but with little understanding of the operational issues and performance
- Lack of foreign language information despite increase in foreign driver
- Shortage of driver rest facilities in the area
- Freight Partnership could provide the mechanism for delivering a range of actions

Tyne and Wear Freight Quality Partnership

Aim: mitigating the negative impacts of freight to the area – reducing emissions and promoting sustainable forms of transport

Mapping initiatives, signage improvements, work to address lorry parking issues (and Truck Information Points), modal shift to rail (reductions of HGV movement), and promoting freight exchange programme (Freight consolidation)

Newcastle is leader of the introduction of electric vehicle (EV) Technology with the Plugged in Places programme (£7.8m)

Involvement in European projects in order to reduce HGV movements in the region (CIVITAS CATALIST)

Sustainable Travel Plan

Originated from UK Draft Planning and Policy Guidance (PPG) 13 (1994), supported by 1998 UK Transport White Paper and introduced in Local Transport Plan (Source: Rye et al, 2011)

It is one of the (spatial 'urban' / land-use) planning 'intervention' tools to reduce private car travel under the Traffic Demand Management (TDM) theme (other themes including settlement size, density, mixed-use, parking, location, street layout, accessibility, etc.) (source: CfIT, 2009)

It is part of 'Smarter Choices' programme by DfT (2004) – soft measures, mostly well known in School Travel Plan, Workplace Travel Plan, Personalised Travel Plan (which are operational/organisational)*

Evidence on successful workplace travel plan (18% car travel reduction) (source: Cairns et al, 2010)

In freight related activity: no evidence or simply less explored in UK

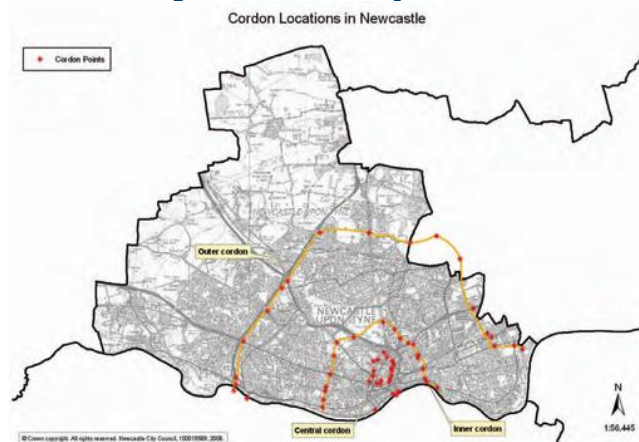
Delivery Service Plan

Following previous well known Travel Plan (school and workplace) – how about logistic delivery travel plan?

LTP3 is clear in helping freight operation in the region runs smoothly especially the HGV, but how about city logistics to meet air quality management targets? (AQMA)

Freight Consolidation and Low Emission Zones are the two tools available at LTP3 to help city logistics but more may be needed.

Will delivery service plans within the city context be feasible?



No growth in traffic policy cordon system (LTP3)

SmartFuSION 2012

Smart Urban Freight Solutions
EU funded Public-private partnership (PPP)



Urban freight development strategies with 3 demonstration regions to demonstrate smart urban freight solutions, 2 car manufacturers, 3 commercial businesses

Explore the wider technological innovations from Green Car Initiative – using electric and hybrid trucks to deliver the last mile

Urban consolidation centres as a collaborative approaches for urban interurban shipment planning and execution among shippers

Planning and Telematics in urban delivery using remote monitoring system for electric vehicles enabling dynamic mission management integrating energy forecasting and algorithm for urban interurban shipment planning

Urban Consolidation Centres

The urban consolidation concept refers to the transfer of goods between poorly loaded vehicles and either fully loaded vehicles at consolidation centre that is situated close to the final delivery area in a town centre or other retail centre.

In theory this help to reduce total distance travelled by all goods vehicles in the urban area, thus reducing environment and social impacts of urban freight traffic. If clean(er) vehicles are used then the disbenefits of hydrocarbon powered vehicles may be further reduced.

These have been developed and tested at a market level within a number of European and city initiatives. However, the results to date are variable, with failures often related to open market competition, who pays for what, and the failure to plan a viable business plan after the end of subsidy. Others have also modelled such plans and found that they can increase total vehicle kilometres.

See various BESTUFS, CITYFREIGHT, SUGAR etc reports.

Freight Consolidation Centre

The T&W FCC aims to achieve a successful and viable solution by learning from the past:

The decision maker in the supply chain is often seen as the receiver, and yet they rarely perceive themselves as such. Few will pay extra for a disruptive step in the logistics chain, so looking for added value such as repacking, storage, reverse logistics is necessary.

The use of clean vehicles is a key policy and this can be added value.

The T&W FCC 'hub' will be sold to retailers, run by Clipper Logistics, Newcastle City Council and Your Homes Newcastle and offers solution that eliminates store stock areas and the associated management challenges while maximising sales and profitability. It also likely that it would provide added value to major freight receivers such as the University and the National Health Service.

Coherent Campus Strategy: a case study of delivery service plan



The University is the second largest employer in Newcastle
Newcastle University main buildings are located well at the historic city of Newcastle and therefore characterised by non-car friendly built environment.

University policy is to promote sustainable travel (including reducing car parking facilities to develop further city campus; 4 year travel plan reportedly achieve only 25% single car occupancy travel – source: LTP3)
The University is dealing with various logistics requirement with various materials including stationary, chemical, medical, food, etc to be supplied but recent issues has arisen of the increasing unnecessary freight traffic around the city campus.

A blue-tinted background image showing a warehouse interior with a forklift, a pallet, and a truck.

Research: Making the case of Newcastle University (UNEW) delivery service plan

Organisations involved: NewRail – RFAL (NR), Newcastle City Council (NCC), Purchasing (P), and UNEW Estates (ED)

Reported observation of inefficient and ineffective delivery of goods to the Campus site (P)

Challenges of organising vehicle traffic (including freight) around the Campus site and the closing of main Campus gate for vehicle traffic by October (ED)

Sustainable City with less environment and social impact (noise, pollution and congestion) target (NCC)

Investigating the feasibility of delivery service plan of the City Campus (NR)

UNEW Delivery Service Plan

Agenda for research:

- Literature review of delivery service plan tools and best practices (if any)
- Collecting freight traffic data for the baseline (with provided delivery hotspots supplied by P)
- Investigating logistics procurement data supplied by P
- Conducting data analysis to better understand the nature of the logistics delivery flow within the Campus site
- Conducting stated preference to the supplier of UNEW to understand supplier choices of delivery with Campus traffic policies options
- Write recommendations to the University of policies that's most likely to be accepted by the supplier (willingness to pay)

At the strategic level liaise with NCC to introduce such approach for other big organisations to follow/to advise the (successful/unsuccessful) approach

Conclusions and Questions?

References

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Rye et al (2011) Using the land-use planning process to secure travelplans: an assessment of progress in England to date. *Journal of Transport Geography* 19(2): 235-243

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<http://www.tyneandwearfreight.info/>

The video shown at the meeting is available at the following link

<http://www.tyneandwearfreight.info/news/video/video.aspx>