

The role of the BESTUFS Thematic Network in the promotion of best practice in urban freight distribution

Mark Robinson

ADVANCED RAILWAY RESEARCH CENTRE
UNIVERSITY OF SHEFFIELD

Bryan Stead

CONSULTANT, BURO HAPPOLD LIMITED

1 Introduction

Europe enjoys a longstanding tradition of excellence in research and technology. The quality of its researchers, engineers and technicians have allowed Europe to provide innovative solutions to the wide ranging problems that confront modern society. In the 3rd millennium, European communities are facing even greater challenges. Markets are becoming increasingly global in nature and it is increasingly difficult to cope with rising consumer demand. High level research to address these issues is often beyond the financial capability of one organisation. Co-operation is therefore the key, involving multi-European partners under various European programmes and schemes. Thematic Networks provide a structure which facilitates

the pooling of academic and industrial resources, combining different approaches and competencies. Thematic Networks contribute to the knowledge base and allow cross-fertilisation of ideas in a particular subject area.

The Thematic Network activity within the Commission Transport and Energy Programme provides the infrastructural support to allow synergies between Academia and Industry, between complimentary activities and between national and EU-based Transport Research Programmes to be disseminated and exploited.

Trans-national co-operation through networks is instrumental in creating a European society where research and technological development can stimulate economic strength and improve the quality of life of all European citizens.

2 The BESTUFS Thematic Networks

The BEST Urban Freight Solutions (BESTUFS) thematic network has been established by the European Community-DG TREN as part of the process of developing pan-European approaches to the problems of transport. The work of BESTUFS sits within the policy and regulatory framework of the Community, including the common transport policy, the development of the Trans European Transport Networks and the green paper on urban transport. Such is the importance of BESTUFS to the European Commission that BESTUFS will recommend policy options and suggest potential demonstration project areas to the EC for urban freight and for the inte-

The BESTUFS Thematic Network is presented. The role of the Thematic Network in disseminating best practice in urban freight distribution is described and is its role in promoting trans-European collaboration. The objectives of BESTUFS are described and these are positioned against the European urban freight distribution problems that have been identified. The future for best practice in urban freight distribution is predicted and the goals of BESTUFS explained.

gration of freight transport with other policies.

However, BESTUFS is not solely directed at the work of the European Commission. It is designed to provide a framework for the exchange of best practice between key players in urban freight transport.

The aims of the thematic network, in more detail, are the exchange of information between the key players in urban freight and the European Commission, the development of consensus on the best practices that can be used by policy makers and/or commercial interests, and the dissemination and exploitation of the results at national and European levels.

BESTUFS will act as the facilitator to seek to ensure that best practice is shared across the European Community, with freight opera-

tors and with the local administrations. The programme of work for BESTUFS includes identifying the problems and requirements of the cities, establishing a framework through which recommendations of best practice approaches can be identified and promoting solutions, including offering modified tailor-made type approaches of generic solutions that have been previously applied. No new research will be done specifically as part of the BESTUFS network but research being undertaken by others will form one of the inputs to the network.

3 Objectives of BESTUFS

This Thematic Network is operated with and funded by the European Commission in the 5th Framework Programme under the Key Action "Competitive and Sustainable Growth". The BESTUFS project started in January 2000 with a duration of 4 years.

The main objectives of BESTUFS are:

To establish and maintain an open European network between urban freight transport experts, user groups/associations, ongoing projects, interested cities, the relevant European Commission Directorates, system/technology providers and representatives of national transport administrations. The network is focussing on the movement of goods in urban areas:

- To create a permanent and dynamic concertation activity during the period of the 5th FP;

- To identify and structure the various themes which build the urban freight solutions (UFS) domain and which have relations and influence to it;
- To present projects and best practices;
- To support the clustering of projects on European level and to integrate projects and clusters into the network;
- To collect, compare and summarise available experiences and results of projects and initiatives in the UFS domain mainly for Europe but also - if easily obtainable - for the USA and other countries;
- To identify and describe best practices and success criteria within the UFS domain;
- To disseminate experiences, project relations, best practices and success criteria to a broad public of interested actors and thereby aiming at the transferability of solutions;
- To establish links and co-operations with relevant other thematic networks (treating different themes) on European level in order to share and integrate the results (regarding overlapping themes) and to avoid duplication of work;
- To establish links and co-operations with national thematic networks (treating the UFS domain) in order to share and integrate results;
- To support the co-operation between actors in the UFS domain by providing information and by providing contacts.

BESTUFS is collecting, comparing and summarising available experiences and results of projects and initiatives mainly in Europe, is organising thematic workshops, clustering meetings and conferences and is further disseminating its results via a homepage on the Internet, via newsletters and other dissemination channels.

BESTUFS will therefore contribute:

- To the reduction of congestion and pollution problems associated with city freight logistics;
- To the integration of urban collection and delivery services into door-to-door transport and logistics chains by bringing together the knowledge about urban goods transport and intermodal transport on an integrated systems approach;
- To the improvement of the quality of life in urban areas by analysing and building up environmental friendly and town planning compatible strategies which reduce the goods transport intensity of economic growth.

4 European Problems Identified by BESTUFS

Initial indications of problem areas from across Europe

The first BESTUFS meeting was held in May 2000 and consisted of a broad overview of the current situation in Europe. Experts from across the Union gave a brief description of key issues in their countries.

In Spain, Barcelona has considerable experience of work on urban goods transport issues, including surveys, logistic transshipment centres, regulatory measures at junctions, combined use lanes, infrastructure planning and telematics integration. However, there is a significant problem of managing kerbside activity (parking and loading/unloading) if adequate enforce-

ment cannot be provided. The potential for zone access controls has been identified, but in future there will be a need for more enforcement and new measures. Hence, there is significant interest in new automated enforcement techniques like retractable bollards.

Automatic Retractable Bollards can be installed to limit vehicle access to certain areas of a city. The bollards are designed to be used with two different drive systems: electro-hydraulic service and electro-pneumatic compressor and these are interchangeable.

The appearance of the installation, the number of bollards to be used, and the distance from the control terminal determine which system is employed.

The electro-hydraulic system is generally used when only one or two bollards are to be installed, where as the electro-pneumatic system is employed when a higher number of bollards are employed.

The bollards are designed to minimise visual impact on the area. In addition, they have the following safety characteristics:

- The bollard disconnects at an adjustable, predetermined impact energy, if a collision occurs, allowing vehicles to pass through;
- The bollard has a fail-safe drive system, so if the energy supply is cut-off, the bollard is automatically lowered;
- The power supply used to operate the bollards is low tension (24 volts).

A working example of the implementation of automatic retractable bollards is in the city of Barcelona. The Public Highways office plans to install retractable hydraulic bollards at the southern end of the entrance to Las Ramblas, limiting traffic which can travel up the Ramblas (down traffic is not restricted for the moment, but there are plans to install bollards at the north end of the Ramblas in 2001). Residents of the area would be provided with a magnetic key fob, allowing them to lower the bollards to gain access to Las Ramblas.

For the moment, the second lane for vehicles travelling up Las Ramblas will remain open. However, only buses and taxis will be able to use this lane. If other road users continue to use this lane, then a bollard could be installed, which could be lowered automatically with a signal emitted from a bus wishing to pass through. Studies are also taking place into the effectiveness of an optical system which would be capable of distinguishing the chromatic mix of a vehicle, and if it's yellow and black (like the taxis in Barcelona) the bollard would allow the vehicle through.

In the UK, four broad areas of concern to local authorities were identified:

- Enhanced use of infrastructure through control and access measures (access to pedestrian areas, use of bus lanes, access times versus the concept of the 24 hour city);
- Enhanced signage and information systems (improved traffic and roadworks information, better road signing, use of variable message signs);
- Inter-modal transfer facilities (need for IT compatibility, reluctance to delegate responsibility to third parties, opera-

- Greater use of Intelligent Transport Systems;
- Development of freight forums for greater exchange of views between business and local administrations;
- Enhanced signage and information systems;
- E-commerce and distribution (home shopping);
- Vehicle technology and functionalities;
- Inter-modal transfer facilities.

5 Future Action

The Second BESTUFS Workshop

The second BESTUFS workshop took place in Brussels on 27 September 2000. The theme was "City access/parking/time restrictions" including the theme "improved (automated) enforcement". City access, parking regulations and access time restrictions includes the following specific measures:

- Establishing special protected loading zones in areas where there is considerable delivery traffic, parking places;
- Fee for parking or use of special delivery window (city-centre licence);
- Pedestrian zones in which deliveries can only be carried out at certain times of day or night or certain events;
- Protected zones that have to be kept completely or partly free of trucks;
- Vehicle-limiting measures (e.g. only vehicles with a high standard concerning noise and emissions, length/width/height) or weight restrictions (axle-weight, total train weight);
- Access regulations depending on existing restrictions within the urban infrastructure (e.g. narrow bridge).

6 Conclusion

The authors would like to emphasise that the BESTUFS Thematic Network is an open network involving urban freight transport experts, user groups/ associations, the relevant European Commission Directorates and representatives of national, regional and local transport administrations. All who have something to contribute are invited to participate. There is a website at www.bestufs.net which provides information on progress thus far and forthcoming events and activities.

The authors gratefully acknowledge the support of the European Commission - DG TREN and the advice and support of the technical officer Patrick Menier-Handisyde. BESTUFS is contract number 1999_TN.10003.

REFERENCES

GERARDIN, B., PATIER, D., ROUTHIER, J. L. AND SEGALOU, E. (2000) *Diagnostic du Transport de Marchandises dans une agglomération*. Ministère de l'Équipement des Transports et du Logement, France.

DG TREN (EU) (2000) *Integration of LEAN logistics in urban multi-modal transport management in order to reduce space requirements and optimise the use of transport modes*. LEAN Final Synthesis Report, Office for Official Publications of the European Communities, Luxembourg.

Transport Research DG VII (1998) *Urban Good Transport*. COST 321 - Final Report of Action, Office for Official Publications of the European Communities, Luxembourg, 1998.

Proceedings of *Goods Transport in the Sustainable City*, Vitoria, 6-7 April 1995. DG VII, Brussels, 1996.