
Topic: Freight and city logistics

Submission date: 2006

Name of measure/service etc:

Low Noise Solutions for Night Deliveries

Location: Dublin, Ireland

Initiator and partners:

Dublin Institute of Technology

Short description of the activity:

Attenuating the noise problem has presented opportunities for Irish companies to develop new products and materials to provide innovative acoustic solutions for heavy goods vehicles, ancillaries and city centre loading sites. Dublin Institute of Technology have identified Irish companies who are willing to collaborate to develop these innovative solutions. These solutions will facilitate urban transport measures and initiatives being undertaken by Dublin City Council.

Background and objectives:

The main problems of Dublin in terms of urban transport are:

- Traffic congestion.
- Heavy reliance on usage of private cars.
- Bus access to major residential/retail and employment centres linking the QBC to mainlines and to suburban rail and LUAS (Dublin tramways) needs to be improved.
- Lack of integration of different transport modes.
- Difficulties in distributing freight within the historic city centre.
- Need for more rigorous traffic impact assessment studies in relation to major new residential construction.

The most recent transport policy, 'Transport 21', was launched in November 2005 by the Ministry of Transport. This sets out plans for an integrated transport system for Dublin, to include seven new tramways projects, two Metro lines, and an underground station in Dublin city centre integrating all services.

Particular provisions have been developed in relation to freight. The objectives of Dublin City Council's commercial freight policy include the following:

- To ensure that the opening of the new Dublin Port (access) Tunnel will radically mitigate the commercial traffic transiting the city.
- To implement the 'HGV Strategy for Dublin' which will restrict large HGVs from entering a cordon boundary area in the city centre between 07:00 hours and 19:00 hours.
- To develop (in cooperation with private enterprises) lorry (i.e. truck) parks in selected locations so as to eliminate the hazards of unsuitable lorries parking in residential areas and on busy streets.

- To consider the metering of loading facilities to ensure the maximum use of the available servicing capacity.
- To ensure effective policing and permitting controls.
- To continue to monitor traffic noise and emissions and to evaluate their impact.
- To develop appropriate action plans in response to the EC Directives on Noise and Emissions.

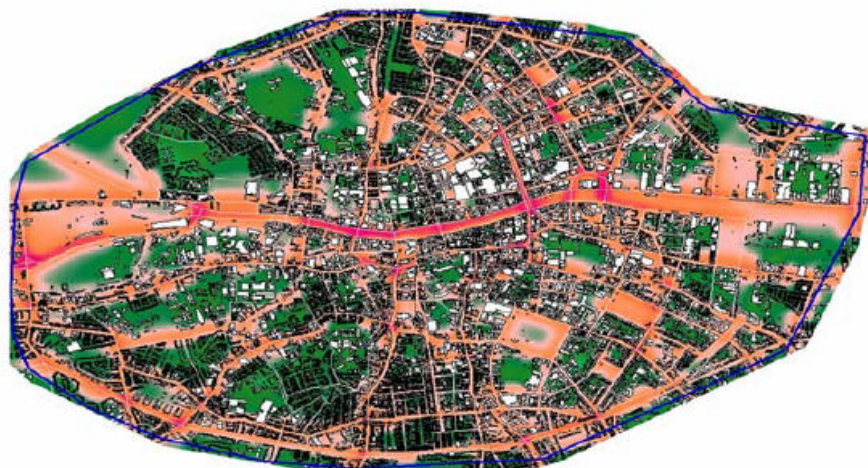
Implementation:

Dublin City Council is faced with having to cope with unexpected new rhythms and patterns affecting city freight transport and delivery whilst ensuring an acceptable quality of life for residents. These patterns are being driven by the demand for just-in-time deliveries, the unwillingness of retailers to hold stock, and by the e-society. Increasing complaints and litigation by residents, a move back to city centre living, combined with the structures of the EC Noise Directive (Directive 2002/49/EC) are driving municipal authorities to promote more sustainable solutions for managing traffic.

Noise is a growing source of annoyance for residents. Changing traffic patterns has added to the noise emanating from restaurants and pubs, construction sites, shops and residents. This can have a major impact on people's quality of life causing sleep deprivation and affecting health.

Attenuating the noise problem has presented opportunities for Irish companies to develop new products and materials to provide innovative acoustic solutions for heavy goods vehicles, ancillaries and city centre loading sites. Dublin Institute of Technology have identified Irish companies who are willing to collaborate to develop these innovative solutions. These solutions will facilitate urban transport measures and initiatives being undertaken by Dublin City Council.

Picture 1: A noise map (as formulated by Dublin City Council) for Dublin City Centre



Note: Residential property areas – white colour
High sound levels – orange and red colours

'Low Noise Solutions for Night Deliveries' began in October 2005 and is due to be completed in late September 2007.

The main objectives to achieve with this initiative are:

- To develop innovative low noise, low cost products and materials that can help to promote and enhance the feasibility of Dublin City Council sustainable transport policies.
- To facilitate the change in freight patterns and the new permitting systems in Dublin following implementation of the HGV Strategy (effective from January 2007). This Strategy is expected to result in an increase in night-time deliveries and resulting noise disturbance for residents.
- To assist Dublin City Council in formulating acoustic limits as part of the action plans required by each member state under the EC Directive on Noise (2002/49/EC 'END').
- To assist Irish retailers and distributors to comply with the EC Directive on Noise (2002/49/EC 'END'), acoustic norms for night deliveries to come into force by Dublin City Council in 2008 and Irish Statutory Instrument No. 140.
- Facilitate the routes to commercialisation of the new acoustic products and materials developed by Irish companies.
- To enhance Irish participation in the relevant EC networks (i.e. NICHES, SILENCE, BESTUFS and CALM).
- To offer networking opportunities for the commercial and public consortium members involved in the 'Low Noise Solutions for Night Deliveries' project.

Conclusions:

- Concept HGV and ancillaries (with innovative acoustic features) to stimulate Irish and international markets.
- Concept 'acoustic logistics site' (with innovative design and materials).
- Specifications for architects and developers to promote acoustic products and urban transport solutions.
- Advice to Dublin City Council from Dublin Institute of Technology regarding acoustic limits recommended for night-deliveries.
- Training manual for logistics service providers to promote low noise deliveries.
- Bringing to market innovative low noise products to assist in encouraging sustainable urban transport measures and solutions.
- To offer networking opportunities for the commercial and public consortium members involved in the 'Low Noise Solutions for Night Deliveries' project and to give Irish companies a voice in influencing acoustic limits for night-time deliveries.

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