Promoting efficient freight distribution solutions

Efficient distribution of goods is vital to the economic development, the environment and the liveability of city centres. Regulating the distribution of goods and a better coordination of goods distribution can have positive effects on the life of the cities.

Cities in CIVITAS CATALIST have several years of experience of innovative actions in order to increase the efficiency and sustainability of urban distribution of goods.
Innovative freight measures – Experiences from CIVITAS

The distribution of goods in city centres is vital for their economic development and attractiveness. Unregulated distribution of goods by heavy vehicles often means high levels of air pollution, traffic congestion and a less attractive environment for inhabitants and shop owners. Several cities have in CIVITAS developed measures to increase the efficiency of goods distribution and to create benefits for all stakeholders. In this folder you can find some of the ongoing activities in the CIVITAS CATALIST cities.

Göteborg: Freight network and city distribution
An Environmental zone for heavy duty vehicles was established in 1996 in the Swedish cities Stockholm, Gothenburg and Malmö. Today the City of Gothenburg leads an interaction group to establish Environmental zones in other Swedish cities.

The City of Gothenburg runs since 2006 a Local Freight Network where city distribution is being discussed with different stakeholders in the logistics chain, such as transport suppliers, property owners and retailers. There are also representatives from Volvo and Chalmers University of Technology in the network. Urban goods transport measures are being developed in dialogue with the Local Freight Network before implementation, which increases acceptance and lead to a more cost efficient working process. Together with the Local Freight Network Gothenburg has also initiated cooperation with the police and parking guards for better enforcement.

Sustainable Urban Transport (SUT) is a new project in Gothenburg that started in 2010. It focuses on urban transports, and the concepts and the vision for SUT will be developed with a cross-disciplinary research approach where state-of-the-art vehicle and ITS technologies (provided by Volvo Technology Corporation) are combined with state of the science in transports and logistics fields and with city planning and land use perspectives (Chalmers University of Technology). In order to be able to test, demonstrate, and validate new concepts the project has engaged the City of Gothenburg and several other actors in the part of the project that is called Göteborg Eco Area.

Genova: “Mobility Credits” - a new model for urban mobility and goods distribution
The “Mobility Credits” system consists in binding the freight vehicles access to a target area to a self-adapting charging scheme based on credits (virtual money).

The mobility credits scheme has a high innovative value, as it is a pricing policy based on the behavioural choice of the way in which credits are spent. The scheme is here applied to a specific sector of the private mobility, but the general criteria could be extended and applied to every piece of the general mobility. The application of the scheme in Genoa historical centre is called “Mercurio”, and is the first test-case ever of this approach, both at European and world level.

The experimental period of Mercurio began on September 14th 2009 and is currently running. The results of the testing period will be discussed at a political level with the participation of the main stakeholders, and consequently decisions will be taken on the continuation of the system.

How does it work?
- Each economic operator settled in the historical centre has the right to an appointed amount of credits. Transports have their own virtual account too, which starts from zero, each entrance is in the area is charged (in credits), and for each freight delivered they receive credits transferred from the operators.
- The target area boundaries are equipped with Automatic Plate Number Recognition gates, able to register vehicles entering the area.
area.

- When their starting budget has been fully used, the economic operators may buy additional credits from the Municipality.

The RFiD card specially developed for Mercurio, used to transfer credits from economic operators to transporters

### Berlin

Berlin, the German capital and the largest city of the country, has a population of some 3.4 million inhabitants distributed on almost 900 km². Thus the situation in Berlin is different compared to other European metropolitan areas: Berlin’s transport infrastructure (road, rail, inland water ways) is excellent for urban freight transport. But there are considerable freight transport induced problems (considering PM10, PM2.5, national NO2 ceiling, national PM2.5 ceiling, ambient noise directive) that create a pressure to act.

To handle this situation the Senate Department for Urban Development, responsible for urban and transport planning, developed the “Integrated Urban Freight Transportation Strategy”. The strategy included privileges for urban freight transport (combined bus- and lorry-lanes, delivery zones), the conservation of necessary urban rail infrastructure and logistic fields (realisation of the City-Terminal-Concept, conservation of rail access to CTs, intermediate use of brownfields, harbors and railway areas), efficient transport and settlement planning (guidelines for the analysis of transport and environmental effects), the installation of regional urban freight platforms and networks, and improvements of transport efficiency (e.g. EU projects CityLog).

Besides, Berlin is the field test area of various “e-mobility” programs for passenger cars. Right now there are several national and European projects applied to integrate electric drives into urban freight distribution as well.

### Bremen: Highlights of activities and experiences in urban logistics

Bremen started very early with City-Logistics. Already in 1991, the development of a “Freight Village Bremen” started – including an intermodal freight hub combining road, rail and waterways. In the mid-90s, the bundling service of City Logistics in Bremen was the pilot for many other cities. After a successful phase of initial cooperation, operational experience showed increasing difficulties. Especially inner city retail chains had their own supply system and courier, parcel and express services improved their efficiency. But in spite of the competitive market situation and the generally ongoing fragmentation of the urban goods shipments in 2005 a reduction of urban truck mileage of about 100’000 km was achieved.

Some of the lessons learnt from the Bremen City Logistics system are:

- Additional handling in a local consolidation centre causes additional costs and time efforts – which overcompensate the advantages of bundled delivery.

- The competition in the Courier-Express-Parcel-sector (CEP) became harder and operators improved their efficiency.

- Driving forces are the legally or physically limited access to pedestrian areas and historic city centres and the eco-image of City-Logistics.

In Bremen, the introduction of cleaner vehicles in the inner urban freight distribution was part of CIVITAS VIVALDI. Although availability of very clean urban delivery vehicles was limited by the manufacturers, some operators (like DHL) implemented very clean CNG delivery trucks – fulfilling the EEV emission standard. With regard to the air quality (PM and NO2-problems), the City of Bremen promotes EEV/Euro-V vehicles by a bonus system for entire fleets of enterprises that are located within the Environmental Zone. Also, an “Environmental Loading Point” was implemented 2007 adjacent to the pedestrian...
area to privilege clean delivery vehicles with extended access hours.

Rotterdam: Urban Distribution

The municipality of Rotterdam, together with trade and industry, is busy trying to make urban truck traffic cleaner, more silent and more economical. With respect to the short term, the following projects/campaigns are under way:

- ‘Dagranddistributie’. Supplying retail chains and supermarkets in the early morning or during the evening. Stocks are delivered using certified PIEK trucks, which are less noisy than standard trucks.

- The Eco2City foundation is looking into the possibility of applying binnenstadservice.nl in Rotterdam. ‘Binnenstadservice’ combines deliveries to medium-sized businesses in the city centre.

- The municipal authority is looking into the possibilities of ‘clean’ loading and unloading points in the centre of Rotterdam, which can only be used by the cleanest trucks.

- The municipal authority is working with Connekt to introduce the Lean and Green Label in the city. There are privileges attached to this label for ‘clean’ transport companies.

- The municipal authority provides carriers with information about time windows, environmental zoning, routing and other rules of the game for goods transport via a flyer and municipal, regional and national websites.

- The environmental zone in Rotterdam’s key shopping area and on the Second Maasvlakte is also contributing to sustainable urban freight traffic.

- In cooperation with the metropolitan area, a quality network for goods transport has been put in place. Freight traffic is guided to its destination via these roads, which are specially designed for such traffic.

Improve your city’s capacities with CIVITAS CATALIST!

The CIVITAS CATASLIST cities cooperate to encourage and support new, successful initiatives. The project CIVITAS CATALIST aims to spread knowledge and experiences on sustainable urban transport throughout Europe. Within CATALIST, cities can apply for funding for cities-to-cities exchange and cooperation. If You and Your city is interested in learning more about urban distribution of goods, please contact one of the following persons:

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