



CiViTAS
Cleaner and better transport in cities
E L A N

CASE STUDY



SUSTAINABLE FREIGHT LOGISTICS IN LJUBLJANA

URBAN FREIGHT LOGISTICS



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Freight logistics in cities are an important part of sustainable transport planning. Optimising delivery of goods can significantly contribute to reduced costs and reduced environmental impact, leading to improved quality of life in the city. Within CIVITAS, Ljubljana worked on the promotion of sustainable freight transport planning. By analysing the current situation, the problems were identified, new sustainable solutions were proposed and further benefits were demonstrated, including a computer simulation model. The activities were supported by the national web portal for promotion of sustainable freight logistics and promoted extensively towards relevant stakeholders.

Municipal context

With 275,000 inhabitants and a total area of 271.67 km², the Slovenian capital Ljubljana is among the smallest European capital cities.

The core of the city is the old centre with narrow streets and the castle hill. Urban density is very high in the old city (27,000 people live in area of 5 km²) compared to the density in the whole

municipality (1,020 people/ km²). The modal split is 80:20 in favour of private vehicles.

Ljubljana is a university city and a strong economic centre, generating one third of all capital and trade, as well as 25 percent of employment nationally. Therefore, the city strongly influences the dynamics of the region and the entire Slovene economy.

MUNICIPAL PROFILE

LOCATION

Ljubljana, Slovenia

POPULATION

280,200

LAND AREA

275 km²

CIVITAS BUDGET

City's total budget: EUR 9,064,864

Total EC contribution: EUR 6,086,471



LJUBLJANA IN CIVITAS

Ljubljana (Slovenia) participated in CIVITAS ELAN, an innovative collaboration between the cities of Ljubljana (Slovenia), Ghent (Belgium), Zagreb (Croatia), Brno (Czech Republic) and Porto (Portugal). The motto of the project is “Mobilising citizens for vital cities.”

CIVITAS ELAN

CIVITAS ELAN took an approach where “Putting the citizen first” was at the core of the work in the five cities. Aside from encouraging involvement, its cities pro-actively worked to convince citizens that clean mobility solutions are in their interest. With its 68 activities, ELAN increased the modal share of walking and cycling, supported innovative freight delivery solutions, implemented innovative demand management, and increased the use of cleaner and energy-efficient vehicles. It ran from 2008-2012.

READ MORE AT:

www.civitas.eu/display-all-projects



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Delivery of goods in the city centre

Introduction

In the city, pedestrian zones are congested with vans and trucks during peak delivery hours, demonstrating that there is still much to do towards achieving sustainability in the field of freight transport.

A number of different solutions have been introduced in Ljubljana, in order to promote and increase the awareness of delivery companies, shop owners, citizens, local authorities and other stakeholders about sustainable freight logistics.

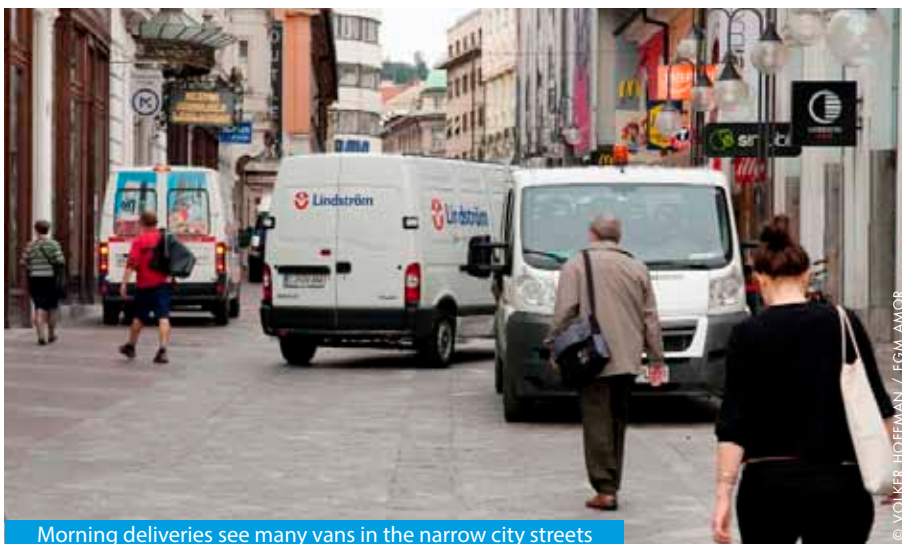
As in many other cities, distribution takes place at the end of the transport chain and is characterised by small loads and frequent number of runs. Access to the retailers in the city centre is limited due to narrow roads, congestion and high urban density. European cities are increasingly aware that sustainable planning of city logistics can significantly improve the environment and the quality of life of their citizens, and for these reasons urban freight logistics is becoming an important part of sustainable transport planning.

Taking a closer look

The combination of the measures implemented during the project significantly contributed to reach the main goals set by the city within CIVITAS. These included the development of an integrated approach, including identification of problems in cooperation with stakeholders, and the further development of a computer model demonstrating the possible scenarios that can be implemented, e.g. consolidated delivery, incentives for electric vehicles, etc.

At the beginning of the project the current status of freight delivery in Ljubljana was analysed based on traffic observations and counting in the city centre, interviews with stakeholders, etc. The main problems observed were: uncoordinated delivery between companies; lack of delivery parking bays; insufficient incentives for clean vehicles; and air and noise pollution caused by delivery vehicles.

The results of the analysis also indicated new solutions for increasing the awareness of cleaner delivery. Local authorities learned where the problems are, what expectations the different stakeholders have, and which long term sustainable measures should be implemented.



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Morning deliveries see many vans in the narrow city streets



By identifying the barriers, the major problems in the city were diagnosed and a realistic computerised transport model was developed. By calculating levels of carbon dioxide, carbon monoxide, nitrous oxides and particulate matter, it showed the areas most polluted by freight vehicles in the city centre. The model demonstrates that by implementing and promoting a consolidated delivery or zero emission delivery (e-delivery vehicles, cargo bikes) local authorities could reduce the number of freight delivery vehicles and, subsequently, air pollution in the city.

Furthermore, with the aim to promote sustainable city freight logistics in Ljubljana in the long term, an **interactive internet portal** has been implemented. The web portal presents a platform where problems and possible solutions can be discussed, with support from an online forum and questionnaires. Delivery companies can find suggestions on how to achieve a more sustainable way of delivering goods in the city centre. Social networks like Facebook and Twitter also contribute to raise awareness, not only in Ljubljana, but also in the whole country.

Some events were organised to promote sustainable freight logistics and the web portal, such as eco-driving courses and meetings with stakeholders.

All the activities include strong cooperation with stakeholders, in order to find solutions acceptable for all parties.

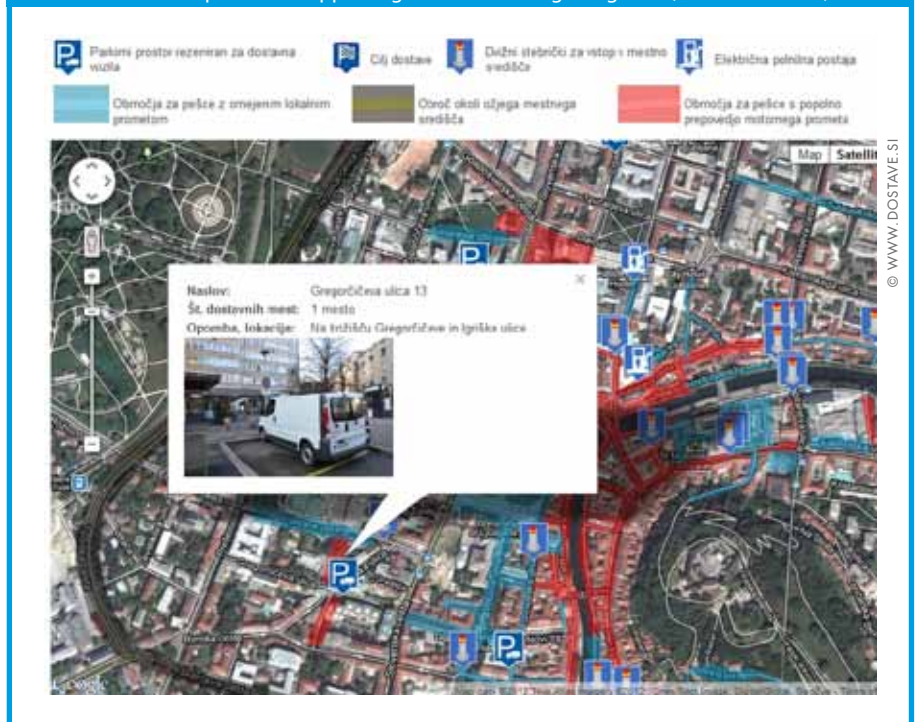
Results

Perceptions of how the measure ran were quite positive and partners were satisfied with the results that emerged. These can be considered to be the following:

- A policy basis has been established for the implementation of sustainable freight logistics in the City of Ljubljana in the future.
- Emissions savings and optimal routes for consolidated delivery can be calculated through the specially developed computer model.
- Eco-driving trainings were organised for 20 delivery drivers, resulting in up to 37 percent of energy savings (on average 25 percent per driver).
- The web portal developed to support sustainable freight logistics, received up to 4,000 visits per month. The content accessed included information about deliveries in Ljubljana; interactive map showing delivery places; physical barriers and electric vehicle charging stations; navigation tool for delivery drivers; good practices; invitations to events, etc.
- Communication with stakeholders improved, leading to an increase in the number of delivery companies planning to implement clean vehicles for delivery in Ljubljana.



The national web portal for supporting sustainable freight logistics (www.dostave.si)



An interactive map for delivery drivers on www.dostave.si



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References or sources

<http://civitas.eu/content/sustainable-freight-logistics>
<http://www.dostave.si>

Lessons learned

The main success factor was the integrated approach that included the permanent involvement of stakeholders. Local economic actors, from shop owners to the chamber of commerce, delivery companies and the wider public should be kept informed about the goals, rules and benefits of the policies and the importance of clean environment in the city.

At the same time, high level of political commitment and support is also crucial.

Furthermore, a good knowledge of freight delivery gained through previous projects was important for developing an innovative and scientifically sound transport model and an internet portal for supporting sustainable delivery.

Upscaling and transferability

The in-depth analysis of the current situation and the transport model serve as a basis for the development of further policies for implementing sustainable freight logistics measures by policy makers.

The knowledge has already been used in the decision-making process for the future implementation of a new pedestrian zone in Ljubljana.

The internet portal is a long-term communication and information platform for stakeholders. It helps to spread the knowledge across the entire country and provides better support to stakeholders performing logistics activities. This kind of promotion of sustainable freight logistics is easily replicable in other European cities.



Mestna občina
Ljubljana



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Demonstrating clean delivery vehicles during promotional events

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