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Improving urban freight transport sustainability by carriers – Best practices from The Netherlands and the EU project CityLog

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Abstract

Carriers face serious challenges in making their urban freight transport efficient and sustainable. Local authorities claim that many carriers are not innovative and do not cooperate in improving their city logistics operations. There are three solution directions to make urban freight transport more efficient and more sustainable: policy, technology and logistics. Carriers can use logistical and technical solutions. In this paper several best practices and carrier-initiatives are presented that are actually brought in practice (in the Netherlands) to improve city logistics. It depends on the type of carrier, either a regional or functional specialist or a generalist, which solution can be effectively used in the urban freight transport operations.

Keywords: City logistics; best practices; carriers; urban freight transport

1. Introduction: The role of carriers in making urban freight transport more sustainable

Efficient and sustainable distribution in urban areas is a challenge for carriers. Next to infrastructural limitations in cities (e.g. narrow streets, street furniture, etc.), the truck drivers in cities are confronted with vulnerable road users, such as pedestrians and cyclists, that share the urban infrastructure with the supplying freight transport. Besides, carriers face governmental restrictions, such as environmental zones

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and time-windows in many cities. However, not only carriers face difficulties in urban freight transport. Next to the carriers, who are responsible for the actual urban freight transport, the local authorities are the most important actors, since they determine the conditions in which urban freight transport can take place. The local authorities are especially interested in a livable city with good air quality and as limited nuisance (e.g. noise, traffic safety) from supplying traffic as possible. Therefore, local authorities use regulations, such as emission zones and time-windows. However, these regulations make it very difficult for carriers to be efficient in their urban freight transport operations (see [1]).

Over the last decade there have been several initiatives to make urban freight transport more sustainable [1]. And, in the Netherlands at least, what strikes most is that the majority of these initiatives come from actors other than carriers. Initiatives have been initiated by local authorities, new organizations (e.g. Binnenstadservice, see [2]), consultants or researchers in often subsidized projects. The result is that local authorities (in the Netherlands) often blame carriers for being not innovative in their urban freight transport operations and for being not cooperative in making urban freight transport more sustainable. On the other hand, carriers reproach especially these local authorities to make it impossible to organize their urban freight transport in an efficient way. A suchlike argument of local authorities fits in the way these authorities look at city logistics issues; they limit their scope to the city only, whereas carriers operate more regionally or nationally. Carriers claim that they are working on all kinds of initiatives to actually make urban freight transport more sustainable (in real, in contrast to the pilot studies and initiatives by other stakeholders). However, due to the different scope of local authorities and carriers this does not attracts the attention. Next, carriers and local authorities usually hardly communicate, and even if it happens, it turns out they do not understand each other. Their worlds are too different (see [1]). So, many of the solutions carriers use to make urban freight transport more sustainable and more efficient are not noticed nor recognized by local authorities.

In this contribution several of the solutions that carriers can use to make urban freight transport more sustainable and on the other side contribute to the carriers' profitability (or at least do not result in financial losses for the carriers) are discussed. First the different solution directions to improve urban freight transport sustainability in general are presented. Then, a distinction is made between three carrier types. The last part of the paper discusses best practices and possibilities the different carrier-types have to organize their urban freight transport activities in a more sustainable way.

2. Solution directions to improve urban freight transport sustainability

To organize urban freight transport more sustainable, we basically distinguish three solution directions: logistical innovations, policy measures and technical improvements. To truly improve urban freight transport, the solution directions should not be considered separately, but be combined in a good mix of solutions from all three directions. This implies action from public and private actors that are coherent and complementary: an overall urban freight transport strategy that considers the variety of objectives of the different stakeholders. In this contribution we present these solutions that carriers can initiate (even without public cooperation) themselves to make their urban freight transport operations more sustainable. These carriers' solutions could fit in an overall strategy, but form only a part of this strategy. This paper's objective is to present innovative carriers' initiatives that actually contribute to making urban freight transport more sustainable and do not (necessarily) require governmental support (financial or in regulations). These initiatives are in that sense financial viable in practice in the long run (in contrast to some other city logistics pilots from the past). One example in which all solution directions are combined is discussed in the section 'Solutions to reduce noise nuisance'.

Carriers are usually unable to directly influence the (local) authorities' policy in various urban areas. Carriers' interest groups lobby to do so, but this is not direct influence. So, if carriers want to improve the