

The integration of urban goods transport in municipal mobility plans.

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ABSTRACT

Goods transport is an essential factor of the economic and social development of any city. However, it may cause many forms of nuisances, both atmospheric and acoustic, as well as congestion and road safety problems that hamper the quality of urban life. It is therefore vital to seek ways to reduce these nuisances, while at the same time optimizing the delivery of goods and the traffic generated by this activity. Three years ago, the Walloon Region started paying more attention to goods transport and taking actions in this field, considering the problems arising daily by this issue in urban areas. This paper will focus on two of these actions. The first one is a manual on how to integrate goods transport in the formulation and implementation of a Municipal Mobility Plan (MMP) and the second is a study into the use of analysis tools to develop an integrated goods transport policy at local level.

1. Introduction : from MMP to the need to take goods traffic into account

For several years, the Walloon Region has been supporting an approach aimed at improving the knowledge of mobility at local level. It endowed itself gradually with know-how, design, management tools and specific training modules to ensure a mobility approach that is consistent at the various levels of its interaction and in keeping with its concern for sustainable development.

One of these tools is the Municipal Mobility Plan (MMP).

This prospective tool pursues a threefold objective :

- accessibility and mobility through: organizing the management of goods and passenger transport, parking and general accessibility at the level of a municipality, meeting the needs of all transport modes in a balanced way, implementing actions to enhance rational car use; stimulating intermodality; providing transportation to people with impaired mobility or modest incomes.
- improved road safety for achieving a reduction in the number and severity of road accidents;
- better quality of life space through measures aimed at improving the usability of public land while encouraging the development of local life activities and reducing traffic-induced nuisances.

In 2005, nearly 85 MMPs have been finalized in the Walloon Region.

A MMP contains at least :

- a diagnosis of local mobility conditions, describing accessibility for the various transport modes and presenting the stakes and possible malfunctions;
- the objectives to be achieved for each travel mode and an order of priorities;
- a definition of the measures required to meet the objectives.

The consideration of goods transport in developing MMPs is henceforth essential.

Through the formulation and implementation of MMPs, the Walloon Region became aware of the need to develop a targeted gradual and consistent integrated approach to urban goods traffic. Two key actions which were not part of the original programme were launched to this end.

The first one relates to the elaboration of a reference manual named “*How to integrate goods transport in the formulation and implementation of a MMP.*”

The second one relates to a global “*study into the use of analysis tools to develop an integrated goods transport policy at local level*”.

The next two chapters give a description of these two key actions. This description is followed by a final chapter containing evaluating conclusions and recommendations.

2. How to integrate goods transport in the formulation and implementation of a MMP

This manual, which was not part of the original programme, constituted a crucial step forward towards taking fully account of goods traffic for working out MMPs. It was published in 2003 by the Walloon Ministry of Equipment and Transport (MET). It is built around the conclusions of a particular study carried out by the Belgian Road Research Centre at the request of the Ministry.

The manual was distributed through different channels so that the people in charge of mobility management issues at local levels (municipal, etc.) could be reached. The manual was also sent

to town centre managers, thus raising the consciousness of those involved in urban goods transport on a daily basis.

2.1. Objectives

This manual aims to :

- be a practical tool for a better integration of goods transport studies in the formulation, implementation and follow-up of MMPs;
- be a methodological guide for data collection and diagnostic tools ;
- list all types of possible solutions and analyse them in the form of technical sheets ;
- define the existing relationships between the numerous players involved in urban goods traffic ;
- organize the follow-up of MMPs.

2.2. Contents

To start with, the manual describes in detail how to *make a general diagnosis of goods transport* in urban areas. For that purpose, it identifies the players and the interactions that exist between them, and suggests a way to organize the dialogue with those players.

In order to *give an insight into the operation of goods transport*, it discusses the survey of data and studies already available, as well as the collection of data (on transport flows, supply chains, parking places for goods vehicles and regulatory burdens in force). This part of the manual also deals with traffic counts (methods, sites and ideal periods, etc.).

The manual identifies the problems encountered and induced by urban goods transport.

The process of identification of problems induced by goods transport in urban areas results in distinguishing three types of problems:

- those relating to the environment and the quality of life ;
- those relating to the travelling and parking of vehicles ;
- those relating to aesthetics and the layout of roads to accommodate this type of transport.

An environmental evaluation is made accordingly (air pollution, energy consumption, traffic noise and accidents).

The manual also discusses the dividing-up between travelling and parked vehicles, as well as the design of the infrastructures.

The identification of problems encountered by goods traffic in urban areas reveals four types of difficulties respectively related to :

- the design of structures and urban pavements;
- the parking of vehicles;
- regulations;
- the loading and unloading of goods.

As a second step, the manual works out the way to *define a strategy*.

The definition of objectives, the inventorying and characterization of the types of possible actions and a few examples of measures are discussed and presented in the form of technical sheets.

For the definition of a strategy, a distinction is made between :

- strategic objectives (improve the quality of life, revitalize the town centre, increase the effectiveness of the local access system for goods delivery to the town centre, make the trading areas more attractive, develop employment in transport and logistics sector);

- sector-based and functional objectives (improve public land use planning and sharing between the various transport functions, develop intermodality mainly through a shift from the road transport to other modes, enhance free traffic flow, improve signalling, control the goods transport and logistics sector, issue suitable and relevant legislation).

The directory of possible actions is presented in the form of technical sheets with multi-faceted data :

- the type of measure considered (regulation, town planning, logistics, road network and vehicle traffic, new techniques (including information), financing and subsidies, delivery activities);
- a short description of the action considered;
- examples of (Belgian or foreign) towns where this type of action is being undertaken (or has been implemented);
- the advantages and disadvantages of the action;
- the term within which this type of action can be implemented;
- the type of town (small, medium, urban or rural) where the action can be undertaken;
- the categories of players involved in the action;
- the conditions necessary for the implementation of the action.

No less than fifteen sheets were drawn up.

The manual concludes with courses of action to recommend for the implementation and the follow-up of a MMP.

This third and final part first establishes the constraints inherent to the basic principles for implementing a municipal mobility plan, including :

- the need for a correct staging of short-, medium- and long-term actions;
- the need for feasibility studies and cost-benefit analyses before carrying out ambitious projects;
- the need for location analyses when freight-generating activities are planned;
- the need to follow the pre-established programme and to analyse the delays incurred and the difficulties encountered;
- the need to maintain the dialogue between the different players, to enable them to act in conjunction;
- the need to keep the public informed on the progress of the project.

Finally, the manual develops the various *stages in the follow-up to the implementation of a MMP*.

This manual is a good review of the basic items to be considered for the integration of urban goods transport in MMPs.

3. A study into the use of analysis tools to develop an integrated goods transport policy at local level.

3.1. Objectives

This study was prompted by a willingness to implement management tools for goods transport in urban areas and to benefit from the advantages of a regional approach to goods transport in urban areas. The aim is to provide a corrective to the disorganised or sometimes even contradictory nature of decision-making at local level. This lack of cross-referenced approach is one of the reproaches most frequently heard from players in the transport sector.

3.2. Results

The results of the *cross-sectional analysis* have made it possible to check the adequacy of the measures taken and to suggest new courses of action for practical experiments.

Through these investigations, it will be possible to have a file of the measures taken in 59 municipalities of over 15,000 inhabitants.

Like in a Dutch study conducted in 2002 and initiated by the Dutch Ministry of Transport, in cooperation with other parties (“Platform Stedelijke Distributie”: inventory of goods transport measures in 280 Dutch municipalities of over 15,000 inhabitants), this inventory takes the form of summary sheets (one per municipality), including among other things :

- general data on the municipality (number of inhabitants, contact person in the administration);
- vehicle size and/or weight reduction measures;
- access restriction measures (time windows, belted districts, etc.);
- traffic regulation measures;
- parking rules;
- goods delivery-friendly layouts.

These hard copy sheets are a practical tool that is regularly used by carriers and shippers.

The availability of this information on the website “www.mobilite.wallonie.be” promotes its use.

To perform well, this kind of tool must be kept up-to-date. The study identifies and describes the most effective procedure for this updating.

The cross-sectional analysis clearly shows that urban goods transport has received poor attention so far.

However favourable progress was made since the most recent MMPs take more account of it.

Nevertheless, the intermediate results of the study have pointed out a few facts :

- the subject is still dealt with in an “anecdotal”, i.e. fragmentary way. Integrated approaches analysing both long-distance transit traffic and the specific aspect of deliveries in town are extremely rare;
- specific subjects requiring advanced knowledge are often tendered out to external specialists. It is not the case of goods transport, although it is a complex subject where experience is essential to produce workable concrete measures that are acceptable to all the players;
- goods transport is systematically analysed from the nuisances point of view, whereas it is clearly essential to the economic and social development of any municipality;
- most of the MMPs that were analysed only consider goods transport by road;
- the diagnosis is mainly made through vehicle counts and the identification of heavy traffic generators. Inquiries among tradesmen are exceptional;
- few MMPs analyse parking space offer and demand for delivery activities and the problems due to the parking of heavy goods vehicles;
- the concerns of suppliers and shippers are not taken into consideration;
- specific signing for heavy goods vehicles is rarely mentioned;
- no reference is made to the management of construction sites, which generate a traffic of specific vehicles (crane lorries, bulk transport, etc.).

After analysis of the recommended solutions, the study shows that they are vague and irresolute, both in substance and in geographic application. In addition, it emphasizes :

- the little innovating character of the suggested solutions;

- the absence, for urban goods transport, of suggestions other than the provision of delivery areas. No suggestions are made for off-road deliveries, neither for infrastructures to accommodate them nor urban development regulations to facilitate them ;
- the presence of forceful measures without any assessment of their feasibility and consequences.

4. Some conclusions

These two actions have enabled the Walloon Region to measure how much the integration of urban goods transport in MMPs is necessary and should be the result of a process of continuous consultation. The most important recommendations that the two above actions and mainly the cross-sectional analysis have highlighted are the ten following ones :

- 1) Systematically deal with urban goods traffic in all MMPs, on an equal footing with public transport and the “soft” modes.
- 2) Adopt an integrated and comprehensive approach.
- 3) Consider the consequences, for goods transport and deliveries, of the set of measures further recommended in the MMP.
- 4) Consider goods transport and delivery as driving forces of the economic and social development of a town and not exclusively as nuisance generators.
- 5) Take account of the views of all players in urban goods transport.
- 6) Include a minimal objective diagnosis (identification and location of the main generators of goods traffic, estimation of transit and terminating traffic (classification counts), estimation of the main routes (transit and terminating traffic) used by heavy goods vehicles (HGV)...);
- 7) Avoid measures that have not been adequately pre-assessed for their consequences on urban goods traffic.
- 8) Quantify – as far as possible – the objectives to be reached and define the type of indicators to evaluate their attainment.
- 9) If possible, resort to the collection of existing data that are readily available and perennial.
- 10) Ask the advice of specialists and not hesitate to take one’s inspiration from good policies implemented both in Belgium and abroad.

Finally, there is a Decree on mobility and local accessibility that is in progress and which will be adopted soon by the Walloon Government. That tool integrates the process of continuous consultation, which is absolutely necessary in formulating and implementing MMPs, with a comprehensive and cross-sectional approach to goods transport and delivery in urban areas.

This is certainly a key step in better considering and treating the goods movement question in urban areas of the Walloon Region.

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