# BESTUFS WP 3.2

# View on urban goods modelling in the Netherlands

## Final

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## 1. Introduction

In this report, I will share my point of view on urban goods modelling in the Netherlands with my Bestufs colleagues.
The report contains six sections:

- brief historic overview
- what others did or are busy with
- what I/we have done
- what is necessary
- what can be expected in future
- conclusions

## 2. Brief history

Urban goods modelling is an area in which I like to distinguish three directions. First, there is the quantitative direction, which concentrates on modelling. Researchers in this area use as input either real or simulated data. Since real data is hardly available, modelling exercises have limited practical relevance in my opinion. There is a real risk of "l'art pour l'art", which also plagues a field like econometrics.
Second, there is the qualitative direction, which is busy collecting real data, but lacks knowledge and skills of how to use the data in modelling. As a result, it is not unlikely that the data that are collected are of limited use for modelling.
Third, there is the quasi-quantitative approach, which has hands-on experience with data collection and is therefore aware of its limitations, has some knowledge of modelling and its scope, and tries to find a reasonable balance. I would position myself in this group.

## 3. What others did or are busy with

Urban goods modelling has not really taken off in the Netherlands. I will briefly list the attempts I know of.
First there are the consultants. They are involved in traffic engineering research, forecasting, economic and environmental studies.
A second group are the university scholars. In the Netherlands I personally know five other researchers who did or are still doing some research in the area.
The third group consists of individuals or teams working in private firms, usually in the area of logistics or transport.
The fourth group are individuals working in government. They usually commission studies in the area, but some of them may also have gained knowledge or use tools to evaluate either general traffic policies or dedicated freight traffic policies. The latter is quite rare.

I will concentrate on the second group. There are six examples worth mentioning:

[1] The PhD research by John Visser and Arjen van Binsbergen at TU Delft;
[2] The MSc study by Jeroen Boerkamps at the faculty of Civil Engineering of TU Delft;
[3] The MSc study of Rob Weiss at the faculty of Civil Engineering of TU Twente;
[4] The PhD research by Hans Quak at RSM Erasmus University Rotterdam;
[5] The research by Joan Rijssenbrij at the Faculty of Mechanical Engineering of TU Delft;
[6] The (PhD and other) research by Ron van Duin at the Faculty of Policy, Management & Technology (TBM) of TU Delft.

The first project gave birth to an encyclopedia-like thesis, which also contained small modelling sections, but these were artificial, not based on empirics.
The second and third study were similar. Their authors started with the intention of (full-scale) modelling, but they could not manage this job and finished with a qualitative approach.
The fourth project is about collecting information from retailers about deliveries in urban areas. The aim is to support policy-making. This is work in progress. It is not clear whether this will lead to a model.

The fifth research line was mainly undertaken to support the development of the City Box, a dedicated (container) transportation system for urban goods transport.
The last example is by a teacher and researcher who uses urban goods transport as a tool for his research. It is one out of several application fields. He has done some modelling, but as far as I know not based on live data. He has coached some MSc students in the area.

**4. What I have done**
I was engaged in Connekt project MG-11 Dataverzameling stedelijke distributie (Data Collection Urban Distribution). Together with consultant DHV we collected data and tried to build a quantitative model. We were not successful, because of several reasons:

- the quality of the dataset was not sufficient for statistical analysis;
- the sample size was not sufficient for the required level of disaggregation;
- it was not clear from the beginning what the to be developed model would ask from the data that were to be collected.

Instead we developed a qualitative model and a spreadsheet-like tool.

**5. What is necessary**
What I have learned from my own work and the work by others is that it is of utmost importance that there exists a sound theoretical basis for a field, a reference base. In case of goods city distribution, such a theoretical basis is missing. This is rather peculiar, because the field has been researched for more than two decades.
What is lacking in particular is an answer to a long list of why-questions. It does not make any sense to model the what-questions if you have not answered these why-questions before. In my opinion two things are definitely necessary:

- to generate a research program for goods city distribution. This program should in particular address the issue of how to uncover the logistical reasoning of private firms, the interaction between decision-making in the various parts of the distribution chain and the relation between logistical and transport decisions. Research should go much further than the well-known case-by-case approach, which usually cannot be generalised, even within a country or region.
- to generate a large and multi-year financial basis for scientific research.

**6. What can be expected in future**
For the Netherlands I expect some changes. The political climate of the past decade was not good for university research in transport. Funding, and in particular co-financing by business, was a major issue.
In fact we have lived without a solid freight transport policy in the Netherlands in this period. If a less liberal national government would come into power, local and regional governments could be supported to spend more time and money on local environmental problems. Then it is likely that funding for studies in urban goods distribution gets more attention. But, it is still possible that policy-makers stick with their past approach of traffic engineering solutions for transport problems, which is only worsening delivery problems. The same holds for the tendency in policy-making to substitute content analysis by process analysis.

For me it’s time to stop with research in this field. I hope that my successor at our institute, together with others in the field, finds ways to develop one or more of these issues.

**7. Conclusions**
I am critical of the development of urban goods distribution research in the past and skeptical about future improvements. But, they are not completely impossible.

**References**

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