



This research proposal was submitted in 2010 in the context of the call for proposals of PREDIT Program Task Group 6. The consortium, led by RATP, the design and planning offices Jonction and SOGARIS, decided to present a dossier SCALP with the objective of measuring the additional costs incurred by adding urban logistic functionalities to an urban public passenger transport project. This research on transport infrastructures and spaces, as well as urban planning, policies and new developments in mobility and sustainable mobility, should make it possible to confirm the feasibility of diversifying transport flows, thus allowing optimal use of these systems by offering a new multimodality (goods/persons). This would result in a modal shift (within the meaning of the "Grenelle de l'Environnement" round table on the environment) from road transport to alternative modes which are environmentally friendly and that can be integrated into "sustainable development" projects.

This project to develop a brand new conceptual goods transport system also completes the overview provided by the two previous PREDIT investigations, carried out in the framework of Task Groups 3 ("Mobility in Urban Areas") and 4 ("Logistics and Goods Transport"), FILET (feasibility of integrating logistics into transport spaces) and IMOT:EP (integration of operational mobility in transport: current states and possibilities). These projects were carried out by a consortium comprising RATP, the Ecole des Mines in Paris, Interface Transport and Jonction, with the support of the City of Paris and APUR (Paris Town Planning Institute).

The purpose of this SCALP investigation was to be able to measure the financial impacts on urban rail passenger transport projects, of proposals for innovative solutions that integrate urban logistics, making it possible to prove the interest of the concept of functional urban superimpositions, which are still uncommon in France. This phase should not only make it possible to estimate the additional costs incurred, but also to assess the financial impact of the advantages of the new services provided on the local community. This step is essential in confirming the relevance of the new systemic model developed, and therefore in finding the methodologies that are still lacking in order to identify the new funding opportunities for these mixed-use infrastructures.

The consortium was directing its efforts towards a flagship project for the Île-de-France region, the Grand Paris Express project, and, more specifically, towards the Rungis/Orly-Saclay-Versailles link, known as the Ligne Verte (green line). It is in this context that there has been a rapprochement with regard to the issue with the teams of Siemens SA, who are working on the development of the NeoVAL range and its "goods" equivalent, CargoVAL. On this basis, the investigation planned, in a broad sense, to bring together the investment costs for the different types of station and the additional costs incurred by the addition of logistic functionalities, with the expertise of SOGARIS, and to assess the impact of the resulting elasticities on the profitability of the project.

The business potential of the attractiveness of the region in question should be assessed by the end of the study. It had also been envisaged to look at the possible links between the different models used for passenger traffic forecasting and the one used to predict the movements of goods (FRETURB). This research, which is still in its early stages, goes far beyond the objectives of this project. Indeed, no existing mathematical model is able to transform movements into journeys. In addition, the absence of source data makes it impossible to make predictions with regard to the various time horizons of the study.

The last part of the project was intended to sum up the possible economic models to implement to ensure funding for all or part of the project. It was not possible to carry out this financial engineering stage at this level of the research process.



On the other hand, the functional definition of Siemens' CargoVal system was determined. The urban approach and the definition of the region's business potential were also established.

As a conclusion, let us recall that the main aims of this project were to propose, for the first time, a comprehensive conceptual and operational approach to the feasibility of integrating an urban goods transport component into an urban passenger transport project.

We believed that the benefits, be they scientific or operational, would be very significant, both academically speaking, and for the industrialists concerned, be they equipment manufacturers, operators, infrastructure managers, engineering specialists, logisticians, freighters or anyone else.

This was an entirely new approach, perhaps too innovative, since it was not a complete success. A much more ambitious project, including research into the economic and financial models that make it possible to precisely measure the impact of integrated passenger and goods transport projects on the urban, environmental, social and financial components of such projects, is therefore still to be developed.

We hope that collective intelligence will quickly come to realise the urgency of flow integration because the projects that this will apply to are very long-term ones. Furthermore, if they are carried out without this new component, this essentially means that this will be put off until the next time there is a reflection as to the introduction of a new mass mode of transport within the region, i.e., 30 to 50 years down the line, perhaps longer.

Nevertheless, regions are showing increasing interest in flow diversity, as is reflected in their policies, and requests for studies will probably rapidly result in the emergence of projects for using tramlines for urban logistics purposes, as is the case with the TramFret project.