**The "last kilometre problem" in merchandise transport inside city of Paris. Introduction to environment parameters in merchandise delivery areas.**

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## ABSTRACT

Since quite recently, city mobility studies and its consequences have not taken into consideration the urban merchandises transport. However, traffic generated by this activity represents a huge share of the whole motor traffic, and the quality of its development will definitely concern the city's economic dynamism. This document focuses the study of all problems generated by the inside-city of Paris merchandises transport, presents a solution, and evaluates its results.

Once global definition of the urban merchandises transport is already made, we look across the most remarkable european initiatives as an answer to the needs of this sector. The analyse of the results obtained will be used as a base of our reflexion.

Afterwards, we will focus our attention on the so named "problem of the last kilometre" and, more specifically, on the public space available for merchandise deliveries. The surface devoted to this activity represents a 15% of the total public ways, this being an important value if we consider the need to reserve it for that use in a city, where free spaces are not abundant.

As a proposal of solution, we present a new tool for the handling of delivery zones, the "eco-reserve". This solution is based on the principle of previous reserve of delivery zones introducing several environment parameters as priority determined specifications. According to its "eco-classification", a vehicle obtains a priority range in relation to other vehicles, in order that it is granted the most suitable zone for its needs. The customer, interested in obtaining the best quality service, will choose the best standing Transport Company. In consequence, there is a great interest among transport companies to endeavour day after day at environment level, thus promoting investments in the private sector addressed to the hunting of new technologies, the final objective being not to be cut out by its competitors and offering the best service.

Besides that, to follow up the objective of this study, we will aim on the city of Paris. After a deep review of documents concerning the merchandise transport and delivery in this city, we present a method to quantify and qualify the daily movement of merchandise deliveries along a commercial zone, considering several parameters, among which we find: commercial density of the area, kind of activity, number of crew and number of movements generated daily by each unity.

Finally, we choose a portion of a commercial street, typical "Parisian"; we estimate both quantity and quality the generation of delivery movements following the aforementioned method. At once, we study the possible adaptation of this system to the present "eco-reserve" case. We expose a detailed proposal of the urban furniture required and the time and space logistic of these "eco-reserves", in order to suit as better as possible the available offer to the existing demand. Discriminating parameters to allow priority range are taken into consideration following the requirements of the city of Paris; among them we underline: improvement of economic efficiency of the city, public space mastering and the improvement of life quality.

As a conclusion, we analyse and valuate the contribution of the implementation of this system and we expose a forecast for the progression of this study.