

## A comparative analysis of the location patterns of logistics activities in Paris and New York City

### Methodology for data harmonization and representation

Master 2 research thesis by Coriolan Gout, September 2022, under the supervision of Matthieu Schorung (Logistics City Chair) and Anne Bretagnolle.

#### *Purpose of the study and problems*

Since the 1990s, research on logistics has been increasingly successful. The sector is increasingly attractive and is undergoing profound changes (e-commerce, urban logistics, etc.). However, many studies and articles take a monographic approach. They describe the state of logistics and its dynamics in a region or metropolis, but few offer comparisons. Faced with this lack of comparative work, a group of researchers has developed the notion of "freight landscape". It allows to measure the intensity and spatial distribution of logistics activities based on external factors (population, employment, transport infrastructures...). The objective of my internship is to deepen the concept of "**freight landscape**" (Rodrigue, Dablanc, Giuliano, 2017). To do so, I chose to propose a **comparative analysis** of the principles of logistics activities' location for the metropolitan areas of **Paris** and **New York City**.

#### *Methodology*

My work consisted mainly in the **constitution of a harmonized database**. This database presents the most **appropriate and comparable data sources for each variable of the freight landscape**: external and internal divisions of the metropolitan areas, logistics and commercial activities, transport infrastructures and population. This database had to serve as a framework and be reusable for future studies. I have therefore carried out a work of expertise and selection of data, so as to reduce as much as possible the biases that could be introduced at the time of the **comparison between the two study areas**.

#### *Main results*

This report presents a **methodology detailing** in an exhaustive way the choices that led to the **constitution of the harmonized database**. It also proposes several analyses of the location principles of logistics activities for the two study areas. These analyses consist of an identification of clusters of logistics activities, the constitution of center/periphery gradients and a correlation analysis between the different variables of the freight landscape. The work done during this internship can be deepened. The different variables identified could be crossed to create a typology of logistics activities for each metropolis. An expertise work could be done to build a more accurate database (location of logistics activities, location of freight stations in New York...) or to add new variables (logistics employment, freight transport intensity...). To facilitate this future work, I delivered a **structured geographic information system** presenting **all the data cleaned and ready to use**.

## La localisation des activités logistiques dans la CMSA de N.Y

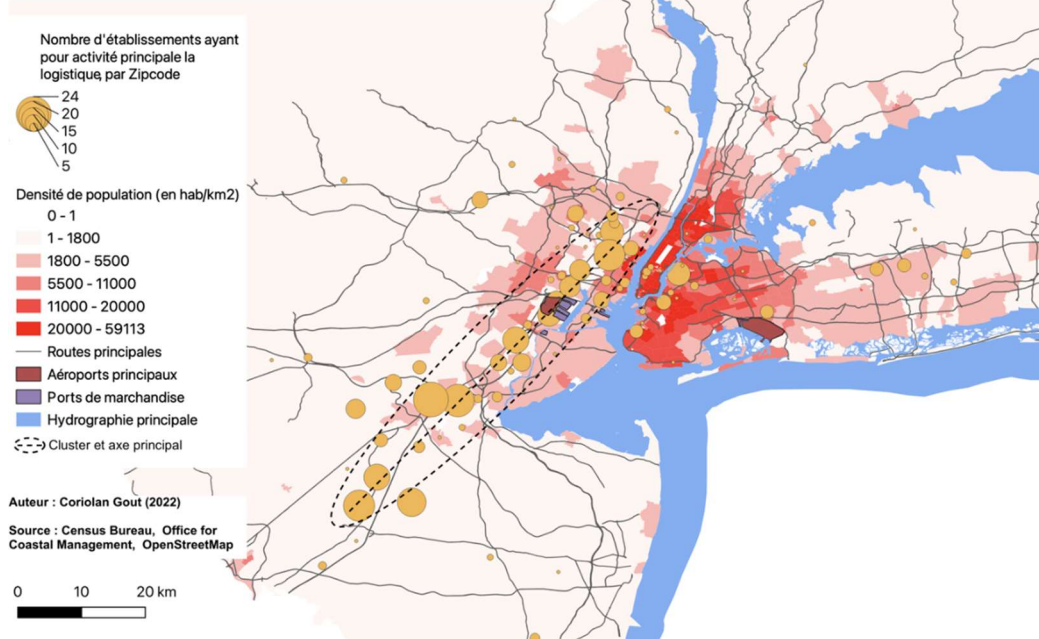


Fig.1. Location of logistics activities in the CMSA of New York (©C. Gout, 2022)

## Typologie des communes de l'aire d'attraction de Paris par secteurs d'activité

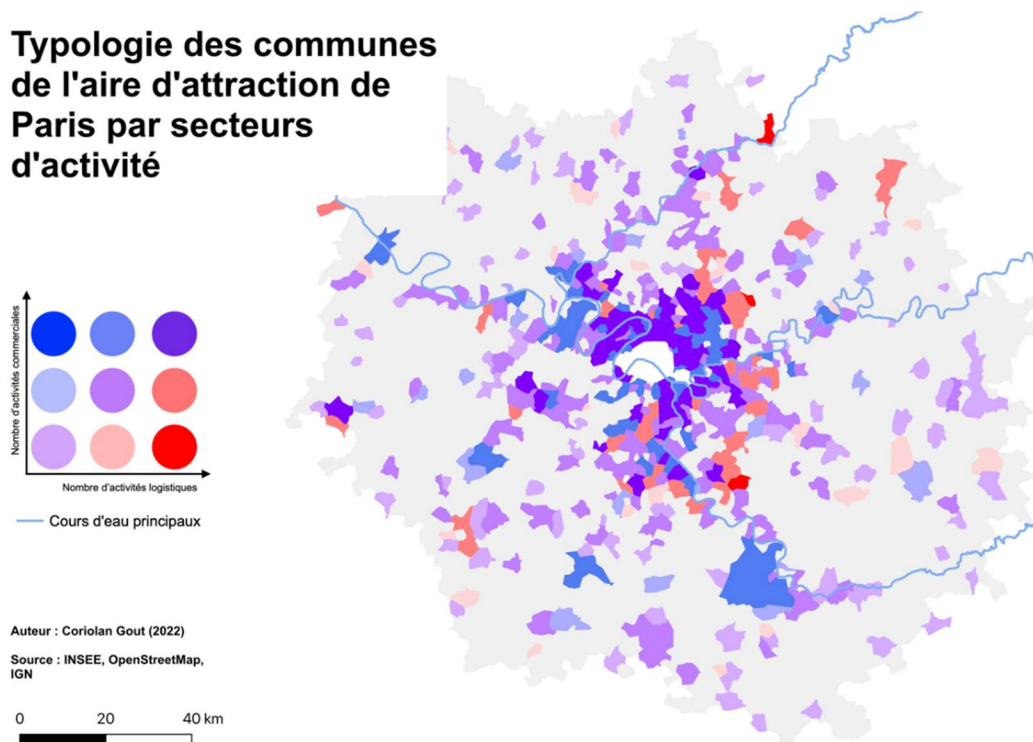


Fig. 2. Typology of municipalities in the Paris metropolitan area by sector of activity (©C. Gout, 2022)