

# Logistics geographies, research from the Logistics City Chair

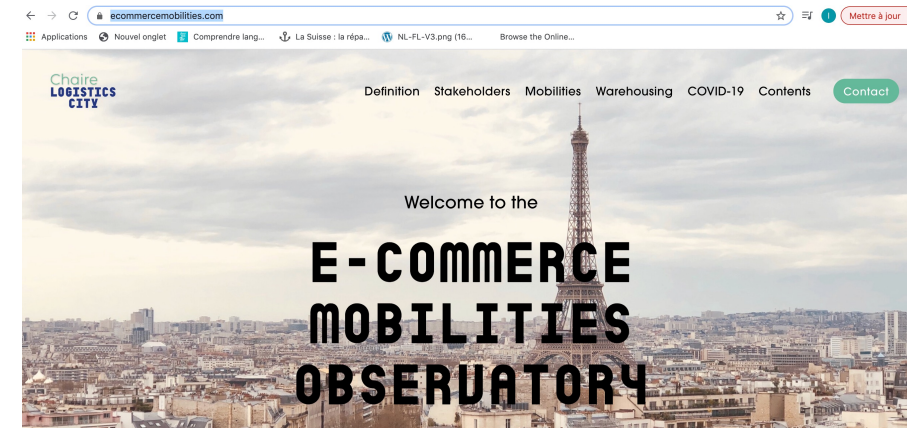
Dr. Laetitia Dablanc

- Social sciences, urban studies
- Macro spatial analyses to micro level studies
- Warehouses, innovations, new trends in consumption and impacts on city logistics

Results available online, eg:

- Observatory of ecommerce mobilities
- Survey reports on gig workers for instant delivery platforms in Paris 2016, 2018, 2020, 2021
- Logistics real estate and relationships with urban form, macro analyses

<https://www.lvmt.fr/en/chaire/logistics-city/>





# New logistics landscapes in large cities



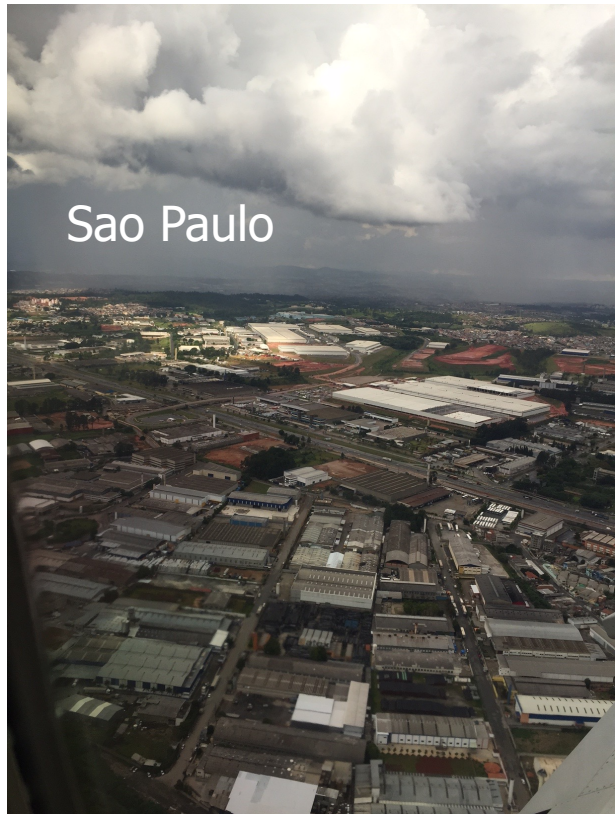
Hong Kong



Buenos Aires



Los Angeles



Sao Paulo



# LOGISTIC SPRAWL ANALYSIS

**In 74 large cities around the world, twice as many warehouses in 2015 compared with 2000**

**Chaire**  
LOGISTICS  
CITY

Dablanc, Palacios, Oliveira 2020



# 17 indicators

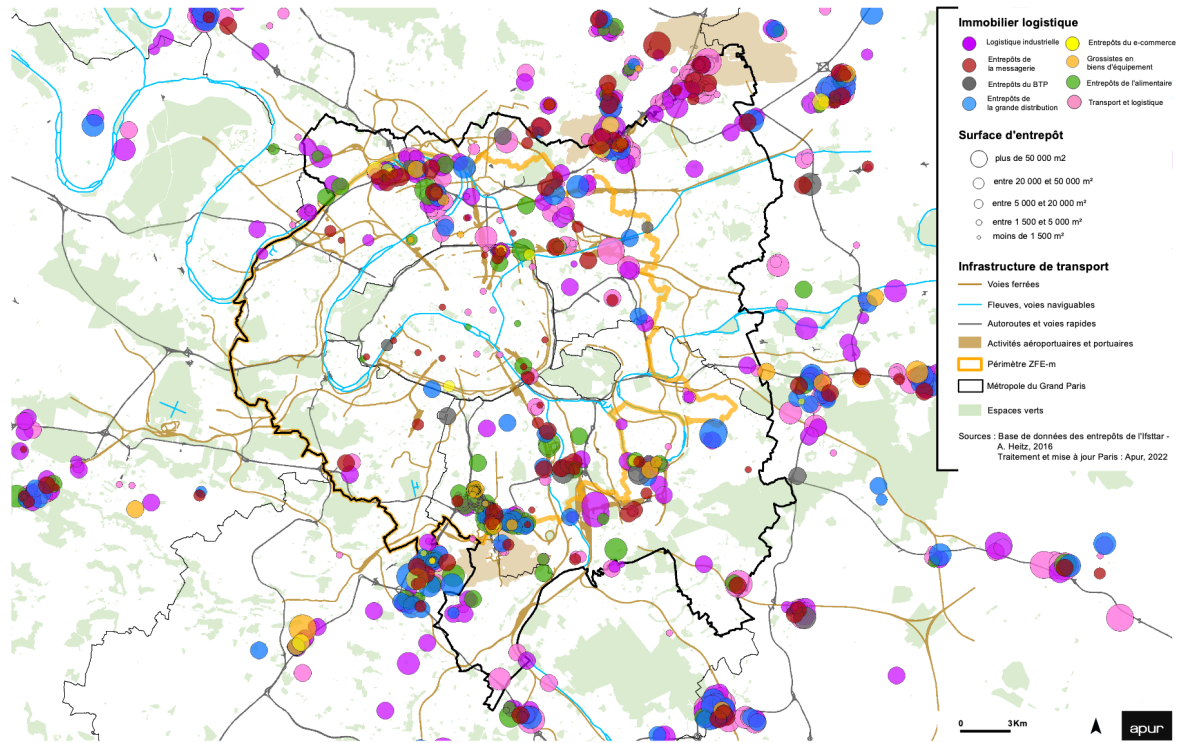
- Name and size of studied metro area
- Type of metropolitan area
- Population (million - most recent year)
- Population density (inhabitants/km<sup>2</sup>)
- Name of warehouse data source
- Number of warehouses (most recent year)
- **Number of warehouses per million people** (most recent year)
- % change per year in number of WH per million people
- **Number of warehouses per 1000 km<sup>2</sup>** (most recent year)
- Average size of warehouses (m<sup>2</sup>)
- Time period studied for logistics sprawl analysis
- Number of years of analysis
- Average distance of warehouses to centre of gravity (most recent year) (km)
- Change in average distance of WHs to centre of gravity (over the years) (km)
- **Change in average distance of WHs to centre of gravity per year** (km/year) (logistics sprawl)
- Cluster indicator
- **Type of land use control**

# Relationships between urban forms and logistics

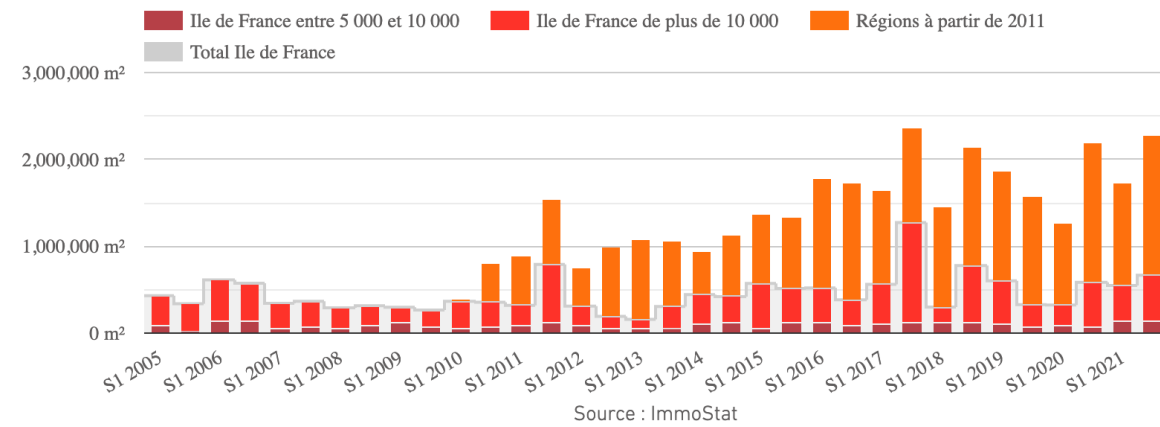
- The number of warehouses per capita has increased in all cities
- The larger the city the higher the number of warehouses per capita
- Logistics sprawl has happened in 80% of cases
- Logistics sprawl is positively linked to land cost differentials between central and suburban areas
- Logistics sprawl is positively linked to availability of large land parcels in suburban areas
- Logistics sprawl is negatively linked to regional land use control

# 1000 warehouses in the Paris region

## L'IMMOBILIER LOGISTIQUE DANS LA METROPOLE DU GRAND PARIS



New warehouse land areas over 5,000 sq m  
 In red: Paris region, In orange: rest of France



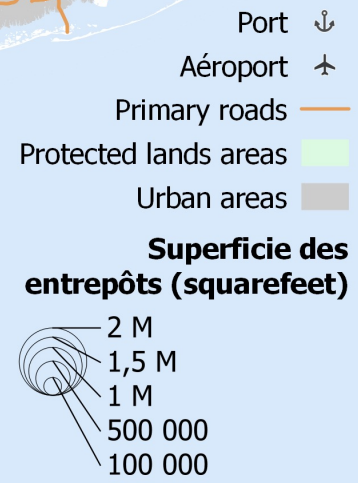
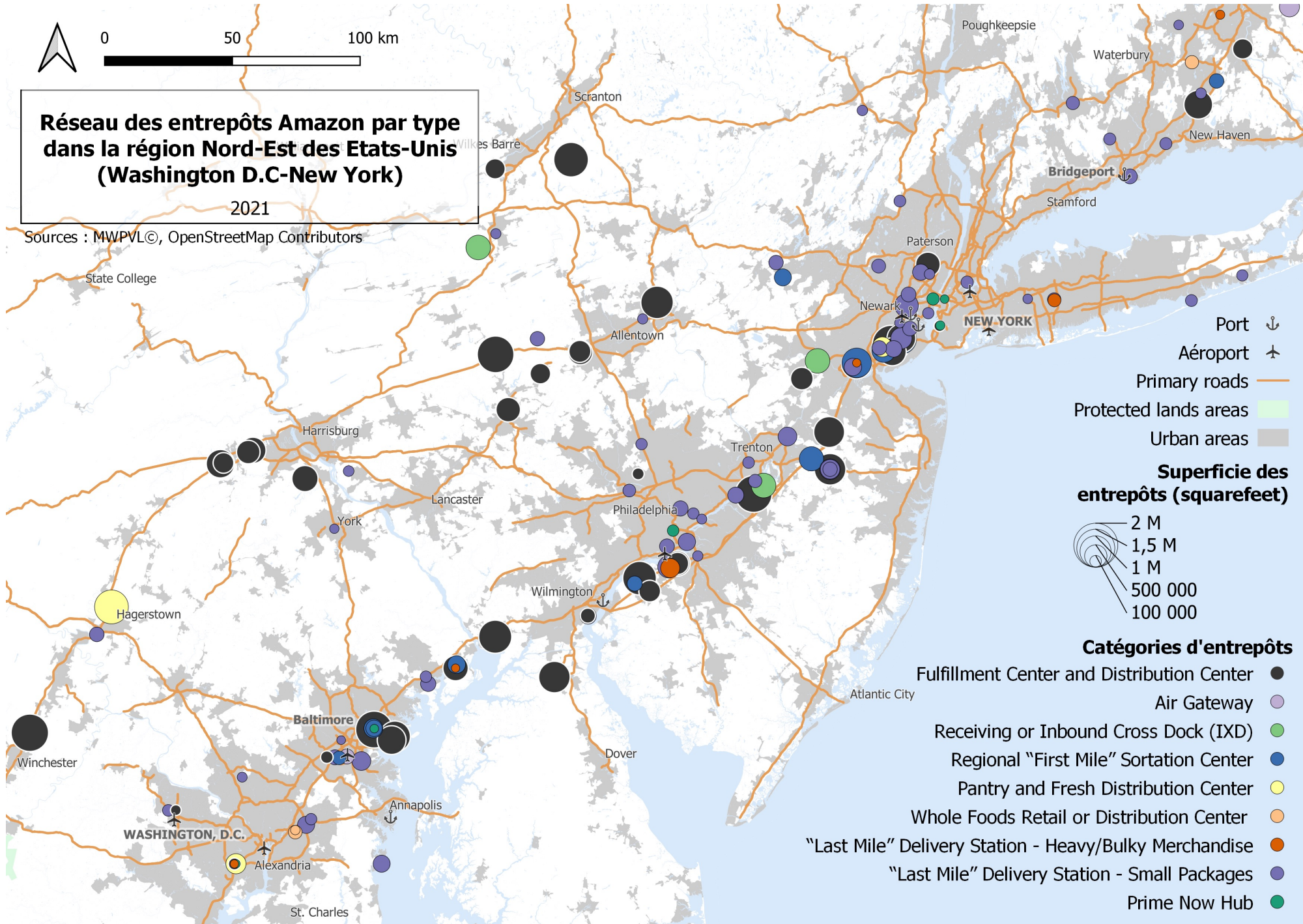




**Réseau des entrepôts Amazon par type dans la région Nord-Est des Etats-Unis (Washington D.C-New York)**

2021

Sources : MWPVL©, OpenStreetMap Contributors

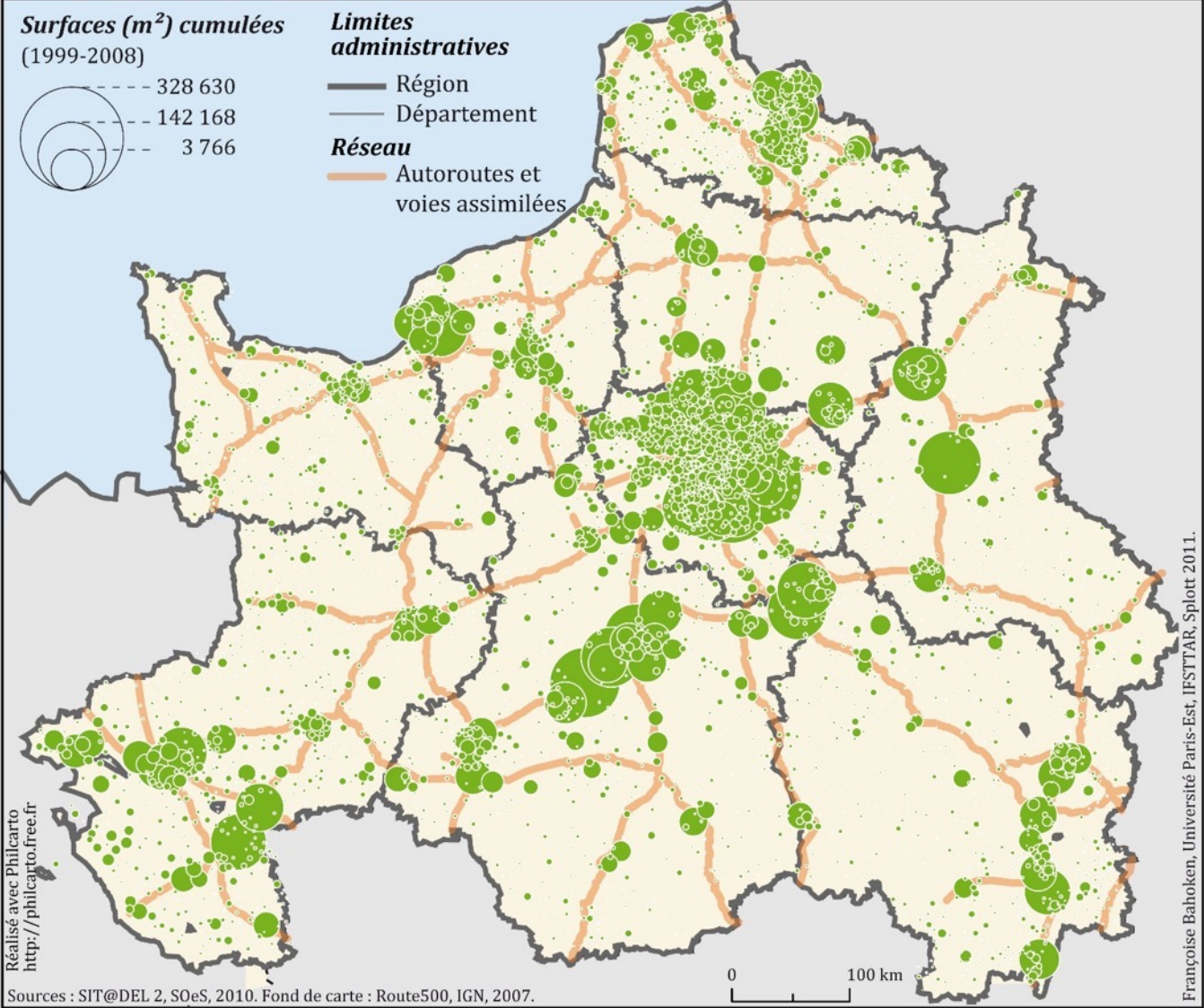


Amazon  
warehouses  
from  
Washington  
DC to NYC

Schoring,  
Lecourt, Logistics  
City Chair, 2021

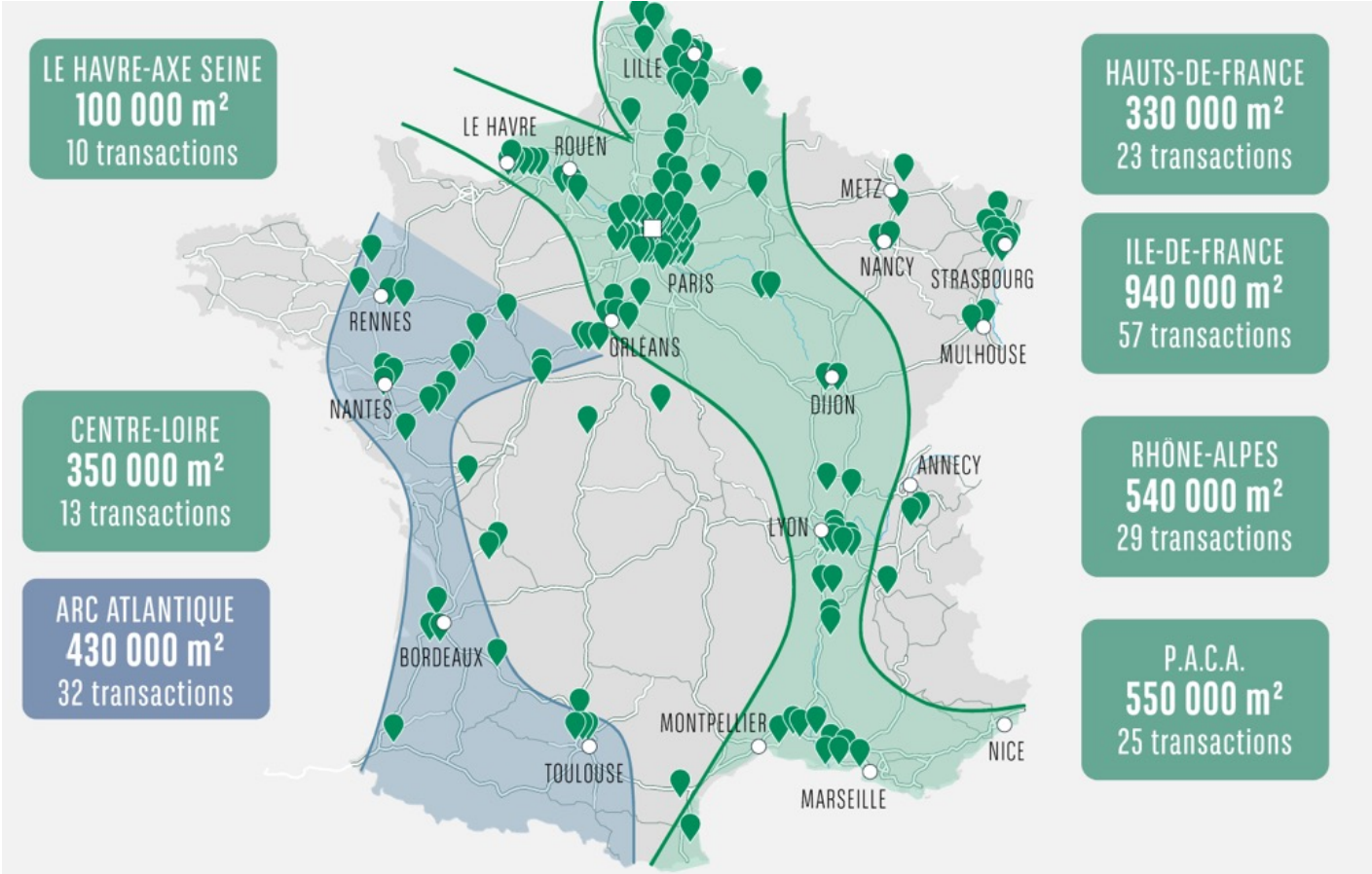


# Warehousing clusters in megaregions



Bahoken, Raimbault, 2011

# Lille, Paris, Lyon and Marseille metro areas concentrate 60% of all logistics property investments in France (2021)



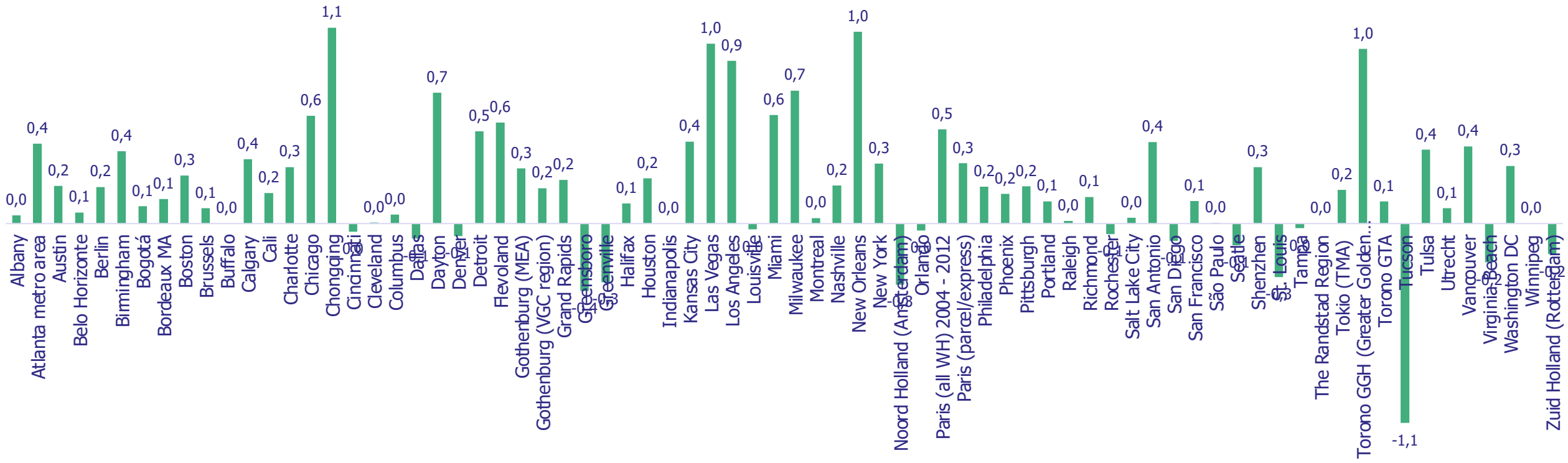
BNB Parisbas real estate, ImmoStat data

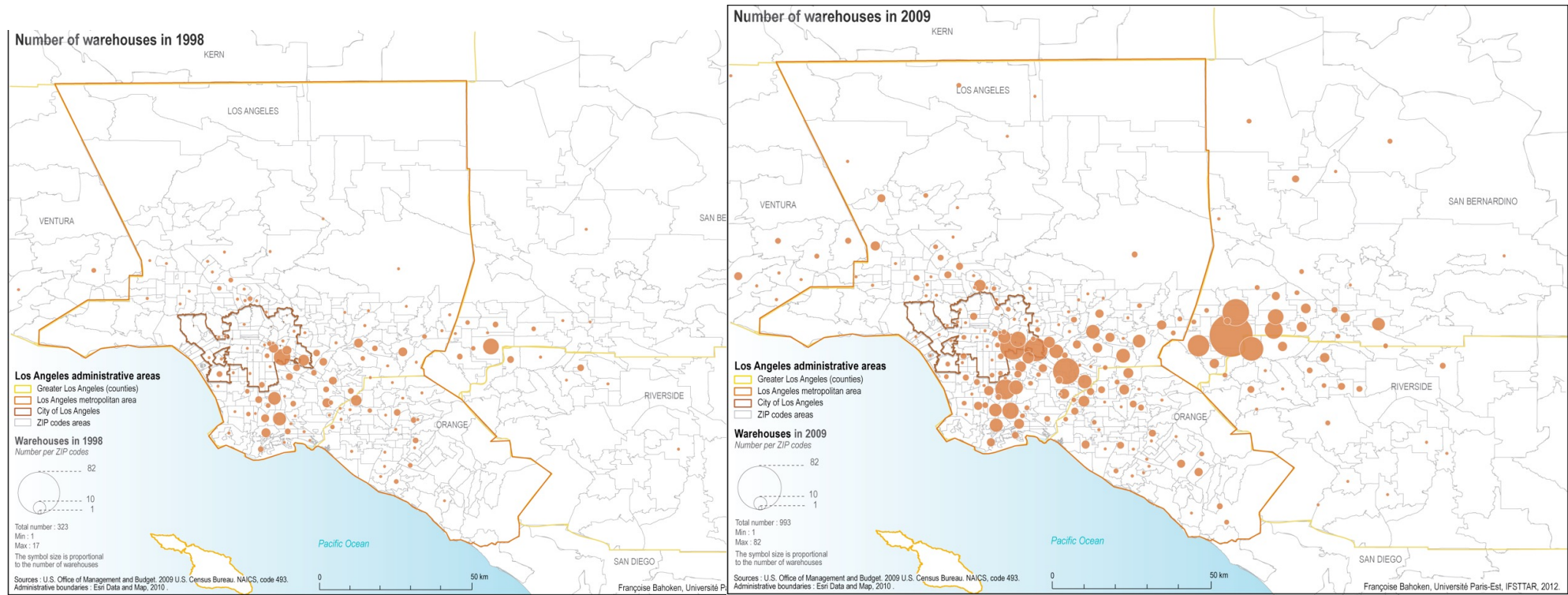


# How to explain concentration in largest cities?

- Faster economic growth
- Largest consumer market
- Large and diverse workforce (need for 0.30 to 0.50 staff/m<sup>2</sup>)
- Nodes of transport infrastructure
- “Gateway cities”
- Outsourcing of logistics real estate investments: global firms prefer to site facilities where potential clients will be found

# Logistics sprawl: change in average distance to center of gravity of all warehouses (km/y)





Dablanc and Farr, 2012

# Los Angeles, warehouses 1998-2009



# Recent trend: a reduction in logistics facilities' land footprint



- 2021 Amazon fulfillment center in Delaware, US
- 350,000 sq m of operations on 70,000 sq m land area



# Warehouses: disruption of transport 'logic'



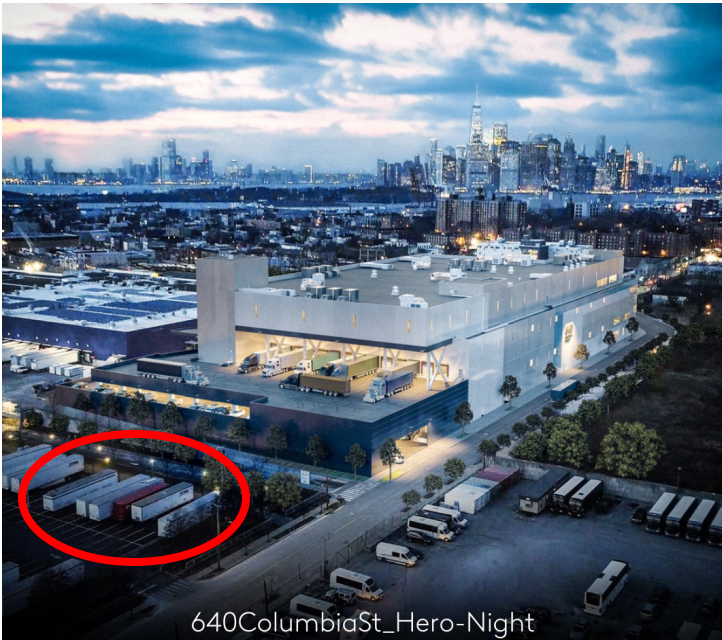


# New large urban warehouses attract truck flows into cities

Tokyo



Brooklyn



640ColumbiaSt\_Hero-Night

Paris

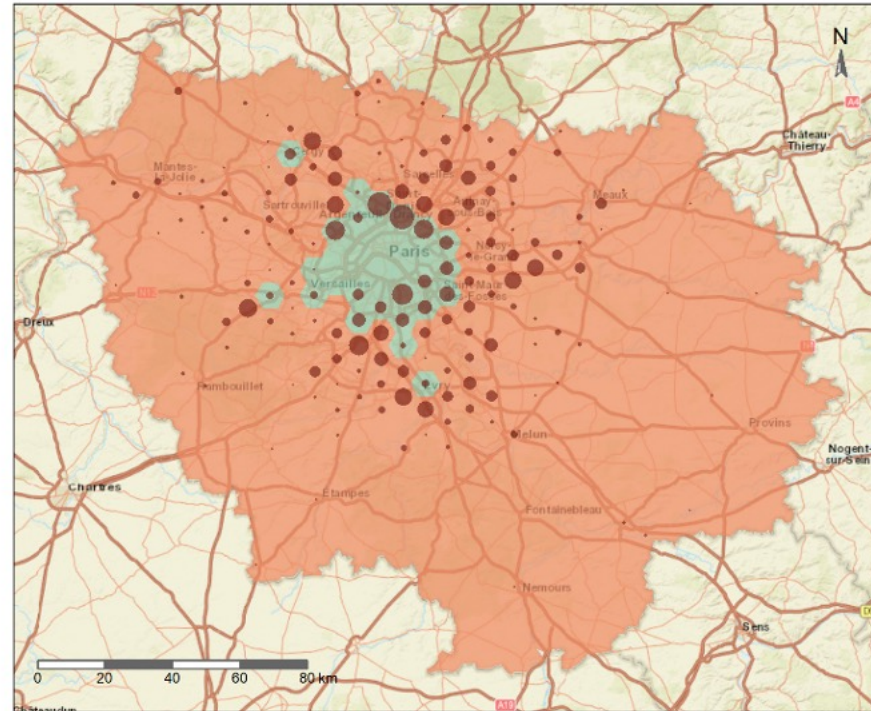


Hôtel logistique de Chapelle internationale (18e arr.) inauguré en juin 2018. © JGP



# Automated data collection (Oliveira, Schorung, Dablanc, 2022)

- *Points of interest* from OpenStreetMap to identify urban v suburban areas
- Warehouse rental prices from real estate market sites

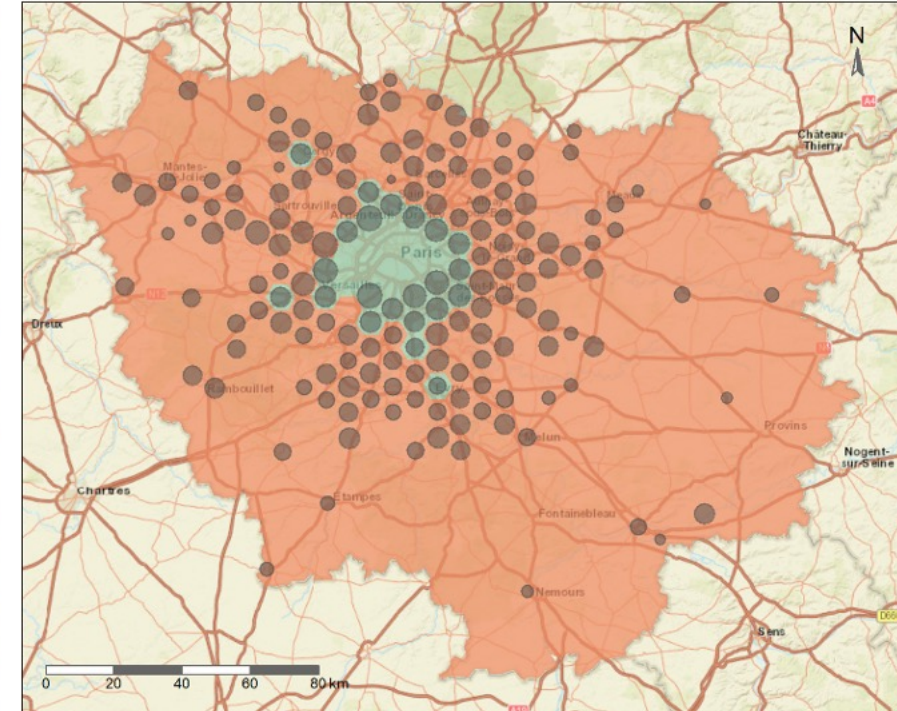


Number of warehouses

suburban  
central

1 32 64 96 127

(A)



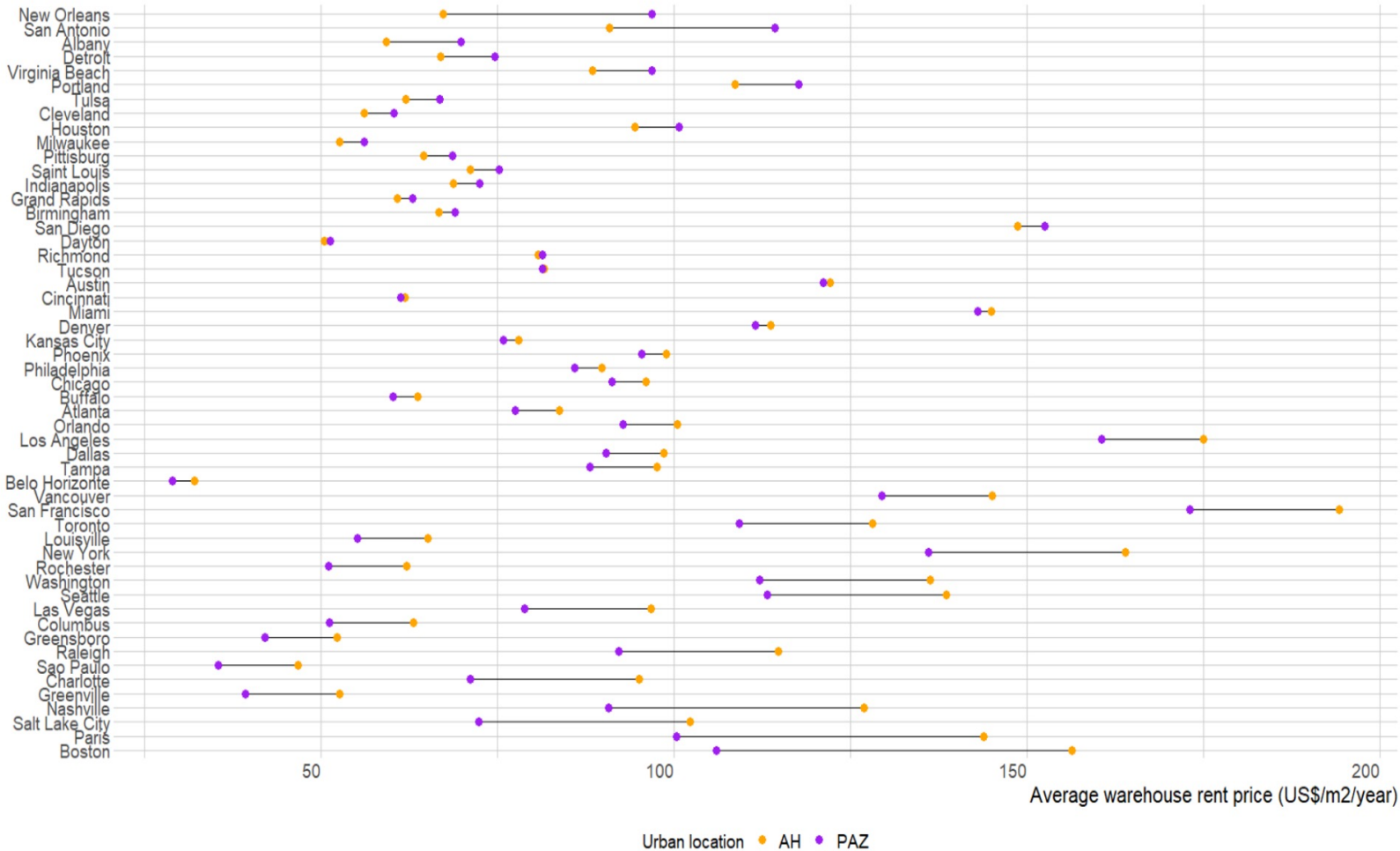
Warehouse average price

suburban  
central

23.0 67.3 111.5 155.8 200.1

(B)

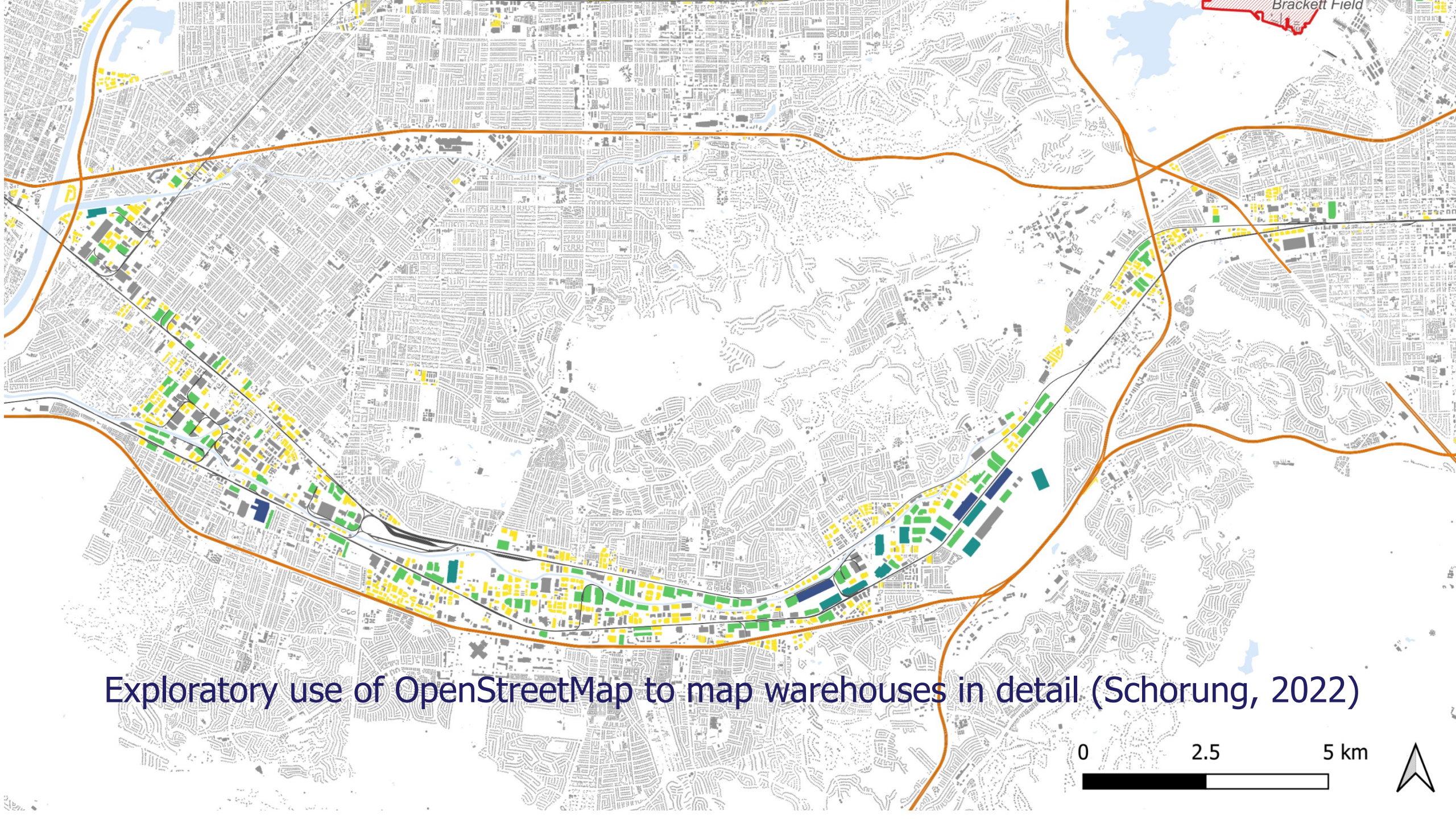
# Paris among the most expensive markets for urban warehouses



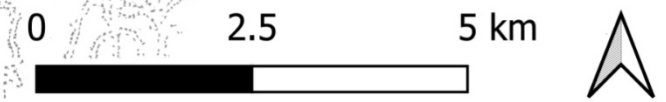
De Oliveira, Dablanc, Schorung, 2022

Figure 4: Representation of warehouse average rent prices for AH and PAZ for each metropolitan region



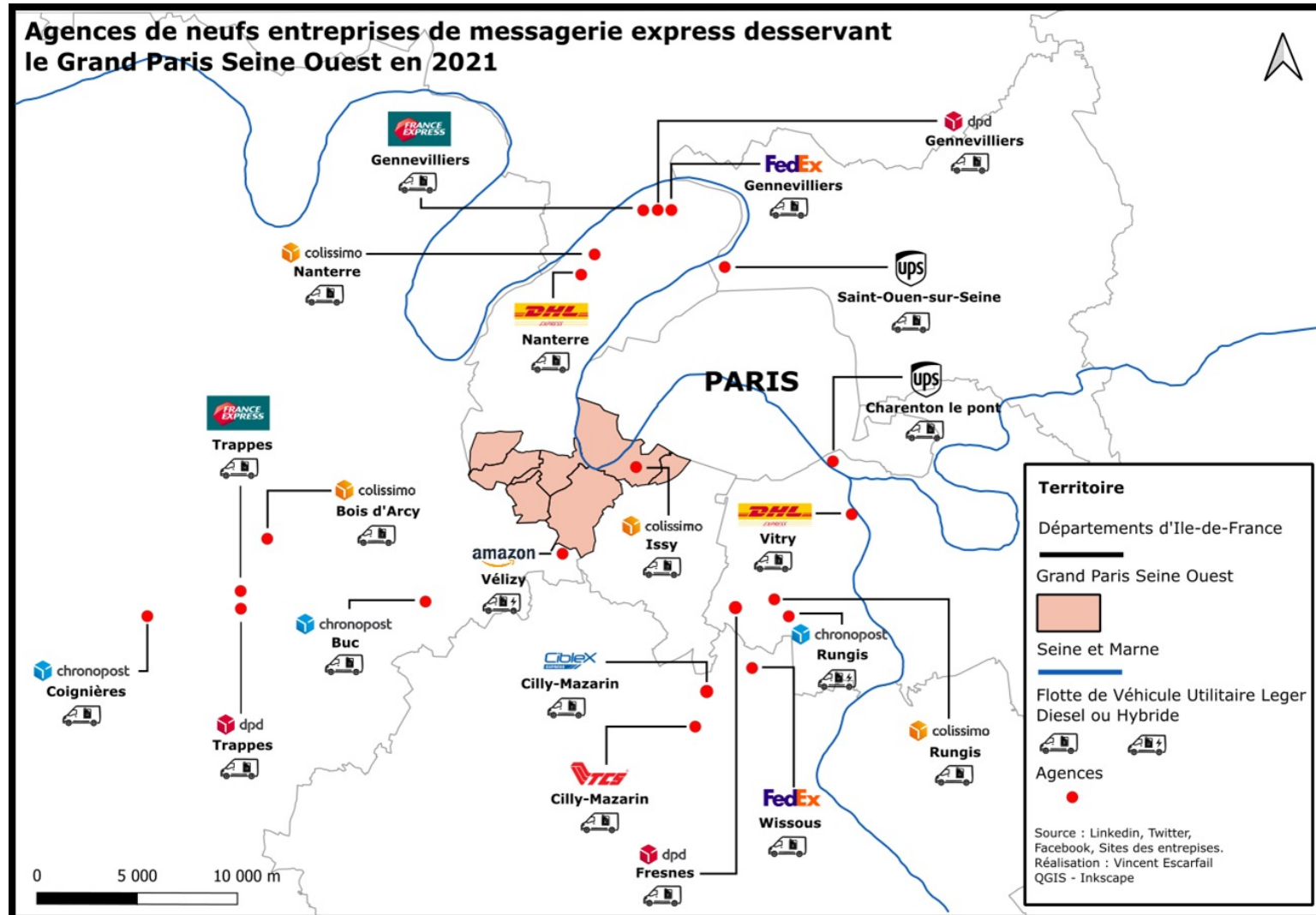


Exploratory use of OpenStreetMap to map warehouses in detail (Schorung, 2022)





# Wealthy areas served by warehouses located elsewhere: example of Issy/Boulogne in the Paris metro area





# A very discreet Amazon warehouse in Brooklyn/Red Hook



- Amazon Flex delivery workers
- Street parking and difficult handling of cart

# New formats in urban warehouses and micro-hubs

- **Vertical** (underground and multistory)
- **Mixed-use**: logistics hotels
- **Temporary**: use of spaces waiting for a development permit, use of spaces available during the day



Empty space turned into logistics hub  
under the Paris ring-road



# New urban formats and architecture for warehouses from mainstream developers



Le projet Size à étages de Prologis sur la Zac des Batignolles marque une nouvelle illustration de sa stratégie en matière de logistique urbaine.

© Prologis / DTACC

Prologis, project 'Size' Paris 17th



Segro, project 'Centre Paris 19', Paris 19th

# Ressources

- CHAIRE LOGISTICS CITY: [www.lvmt.fr/en/chaieres/logistics-city-sogaris/](http://www.lvmt.fr/en/chaieres/logistics-city-sogaris/)
- Dablanc, L. (to be published 2022) Land use planning for a more sustainable urban freight. Chapter 3.1 in Handbook on City Logistics and Urban Freight, Edward Elgar, Eds Marcucci, Gatta, Le Pira
- Schorung, M., Lecourt, T., Dablanc, L. (to be published 2022) Atlas of logistics sprawl in the US, e-book.
- METROFREIGHT [www.metrotrans.org/metrofreight](http://www.metrotrans.org/metrofreight)
- Dablanc, L., Frémont, A. (Dir) (2015) La métropole logistique, Armand Colin

Sous la direction de  
Laetitia Dablanc et Antoine Frémont

## LA MÉTROPOLE LOGISTIQUE

LE TRANSPORT DE MARCHANDISES  
ET LE TERRITOIRE DES GRANDES VILLES



ARMAND COLIN

### ATLAS OF LOGISTICS SPRAWL IN THE USA

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