

Roundtable Urban Logistics Hubs  
Paris, June 26 and 27, 2023

# Introduction to urban logistics hubs

Dr. Laetitia Dablanc

# New York City June 7, 2023: parcel transshipment directly on the curb



L. Dablanc

METRO

**NEW YORK POST**

## City Council passes bills to curb NYC's online-delivery truck chaos

By David Meyer

November 23, 2021 | 8:27pm | Updated

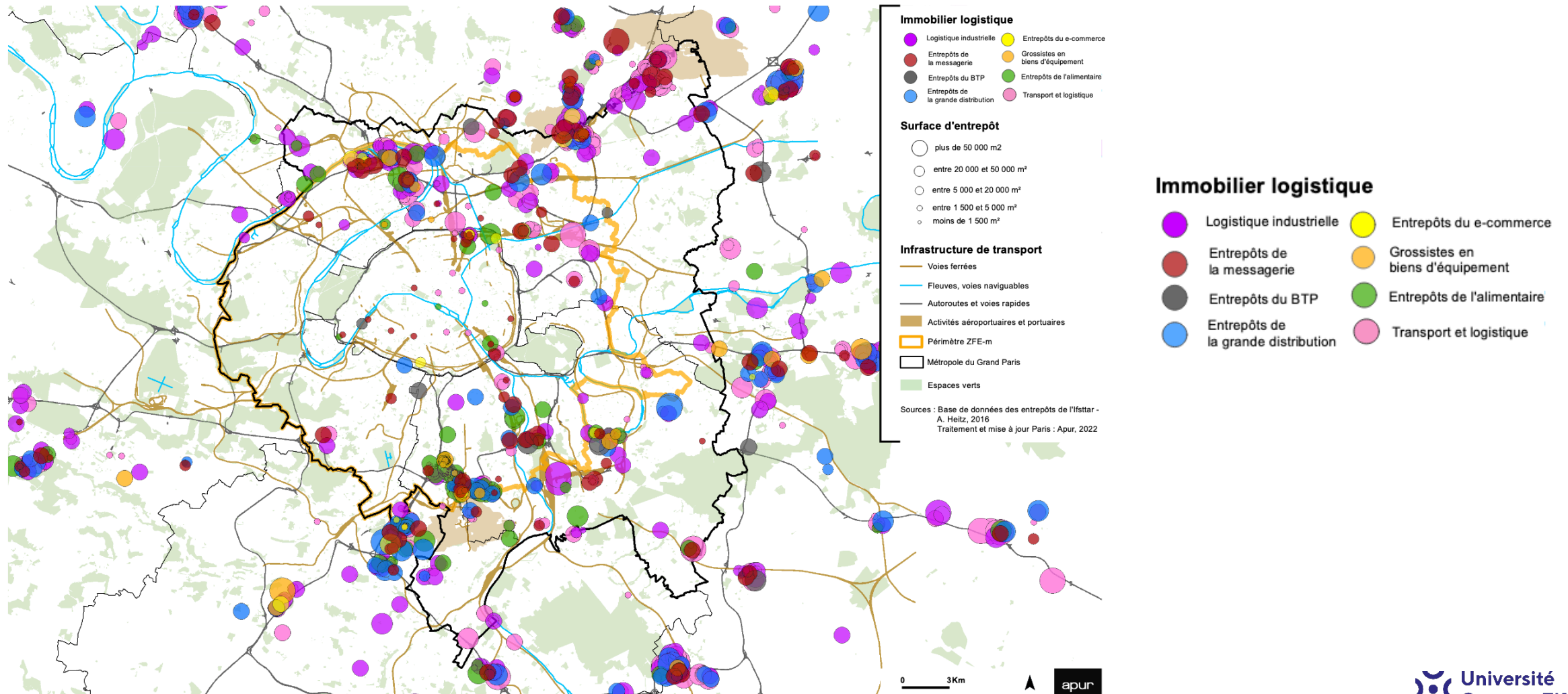
Main types of warehouses and logistics facilities	New formats in urban logistics real estate
<p><b>Distribution center (DC):</b> storage and management of goods (intermediary goods for manufacturers, consumer goods for retailers). Increasingly large (XXL warehouses of 50,000 to 200,000 sq meters). In dense Asian cities such as Tokyo, Seoul, Singapore, warehouses are generally vertical (multi-story buildings of up to 20 levels or more).</p> <p><b>Temperature-controlled warehouse:</b> same as above but for goods that require cold storage, specific temperature (frozen, fresh). Generally higher than ambient temperature DCs.</p> <p><b>Fulfillment center:</b> equivalent to a distribution center, but the terminology is usually used for e-commerce operations. Higher number of SKUs and frequency of picking.</p> <p><b>Cross-dock terminal, sortation terminal:</b> a facility in which goods are not stored but handled in and out in less than a day and generally a couple hours or less. Goods can be parcels and letters but also larger units such as pallets.</p> <p><b>Logistics park, freight village:</b> a set of several warehouses managed by one entity (often the property developer/owner) offering additional services to users such as security, meeting rooms, cafeteria. Freight villages are a further integrated version providing fuel stations, truck maintenance service, and sometimes multimodal services (Italian <i>interporti</i> provide rail road intermodal services, German <i>Güterverkehrszentren</i> can also include waterways).</p>	<p><b>Logistics hotel:</b> large multi-story (vertical) urban facility which is mixed-use. Logistics occupies the main area, often in underground and first levels. Other uses are located at the upper levels: offices, sport facilities, retail. Example Chapelle International in Paris, France (Sogaris developer).</p> <p><b>Consolidation center, urban consolidation center (UCC):</b> facilities of 1000 to 5000 sq meters aggregating goods flows from multiple carriers, consolidating delivery tours in city centers under one delivery company (eg Cityporto Padova, Binnenstadservice in Dutch cities, Stadsleveransen in Gothenburg, Sweden). Specialized UCCs exist such as <i>London Construction Consolidation Centres</i> for consolidating and organizing the deliveries to building sites.</p> <p><b>Micro-hub</b> (urban distribution centers, urban logistics spaces): small logistics facilities (below 2000 sq meters) where goods are prepared for last mile delivery, often on cargo-cycles or electric vans. They can be used by a single user (eg Green Cargo in London) or by multiple users, who share the space but do not consolidate shipments as they would do in a UCC (eg Depot-bike in Prague). Often located on former stores, underground parking facilities, former gas stations.</p> <p><b>Dark store:</b> small urban fulfillment centers, micro-hubs for ultra-fast delivery of groceries ('quick commerce'). Vary between very small (100-200 sq meters) to larger (2000 sq meters) depending on the number of SKUs on sale.</p>

A niche but growing market: urban logistics hubs, micro-hubs, logistics hotels



# Warehouses in the metropolitan area of Paris, 2022

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





# Recent trends



## Photovoltaic

Amsterdam, Sept 2022



## Vertical

2021 Amazon fulfillment center in Delaware, US

## Re-use of urban assets

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



# New formats in urban warehouses, micro-hubs, logistics hotels

- **Vertical** (underground and multistory)
- **Mixed-use:** logistics hotels
- **Temporary:** use of spaces waiting for a development permit, use of spaces available during the day
- **Smart:** re-use of urban brownfields (gas stations, parking facilities, vacant retail), use of empty spaces



# Why look at warehouses?



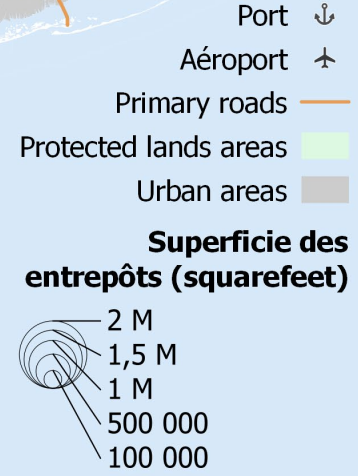
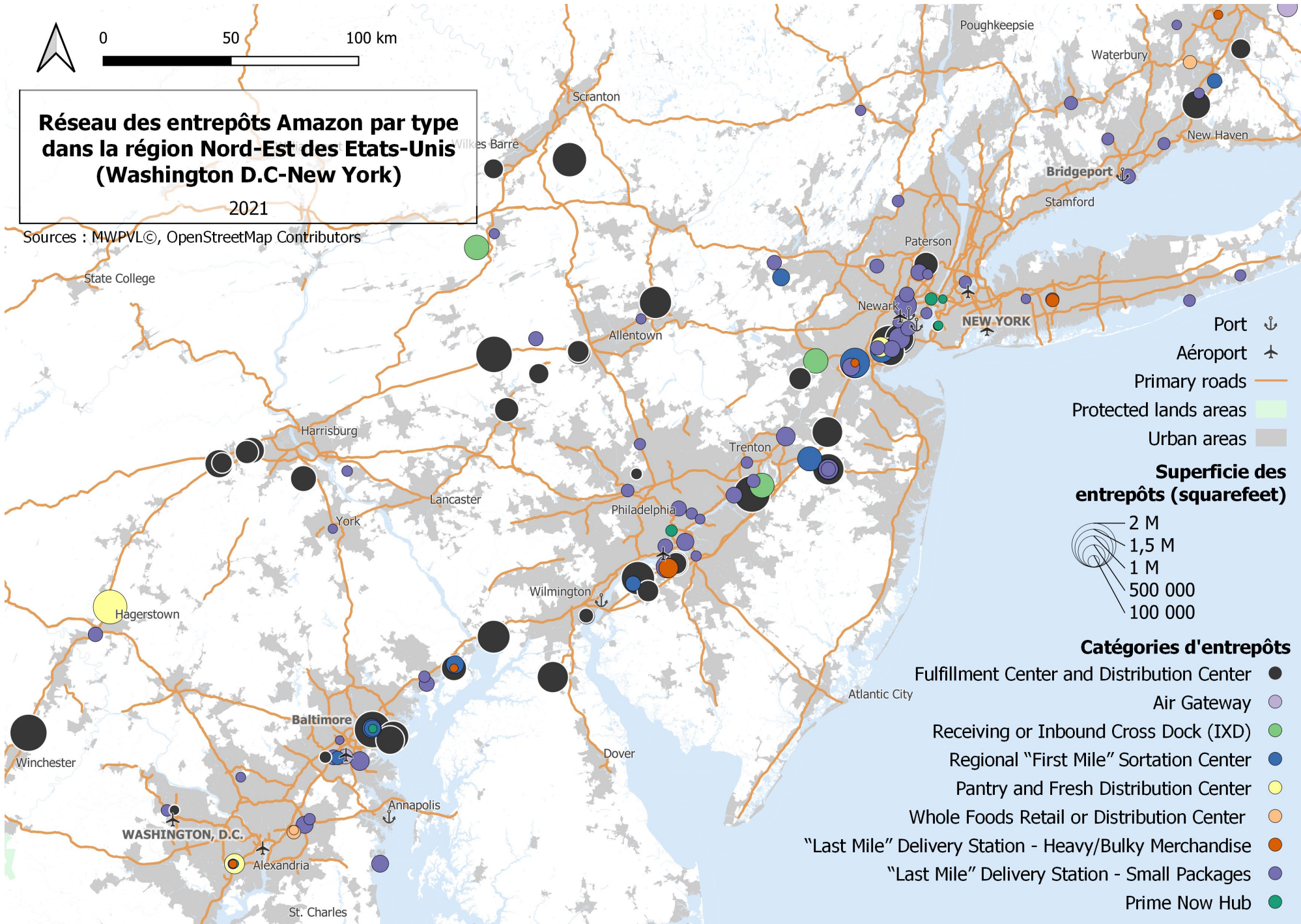




# Réseau des entrepôts Amazon par type dans la région Nord-Est des Etats-Unis (Washington D.C-New York)

2021

Sources : MWPVL©, OpenStreetMap Contributors



- Catégories d'entrepôts**
- Fulfillment Center and Distribution Center ●
  - Air Gateway 🟪
  - Receiving or Inbound Cross Dock (IXD) 🟩
  - Regional "First Mile" Sortation Center 🟦
  - Pantry and Fresh Distribution Center 🟨
  - Whole Foods Retail or Distribution Center 🟠
  - "Last Mile" Delivery Station - Heavy/Bulky Merchandise 🟡
  - "Last Mile" Delivery Station - Small Packages 🟣
  - Prime Now Hub 🟢

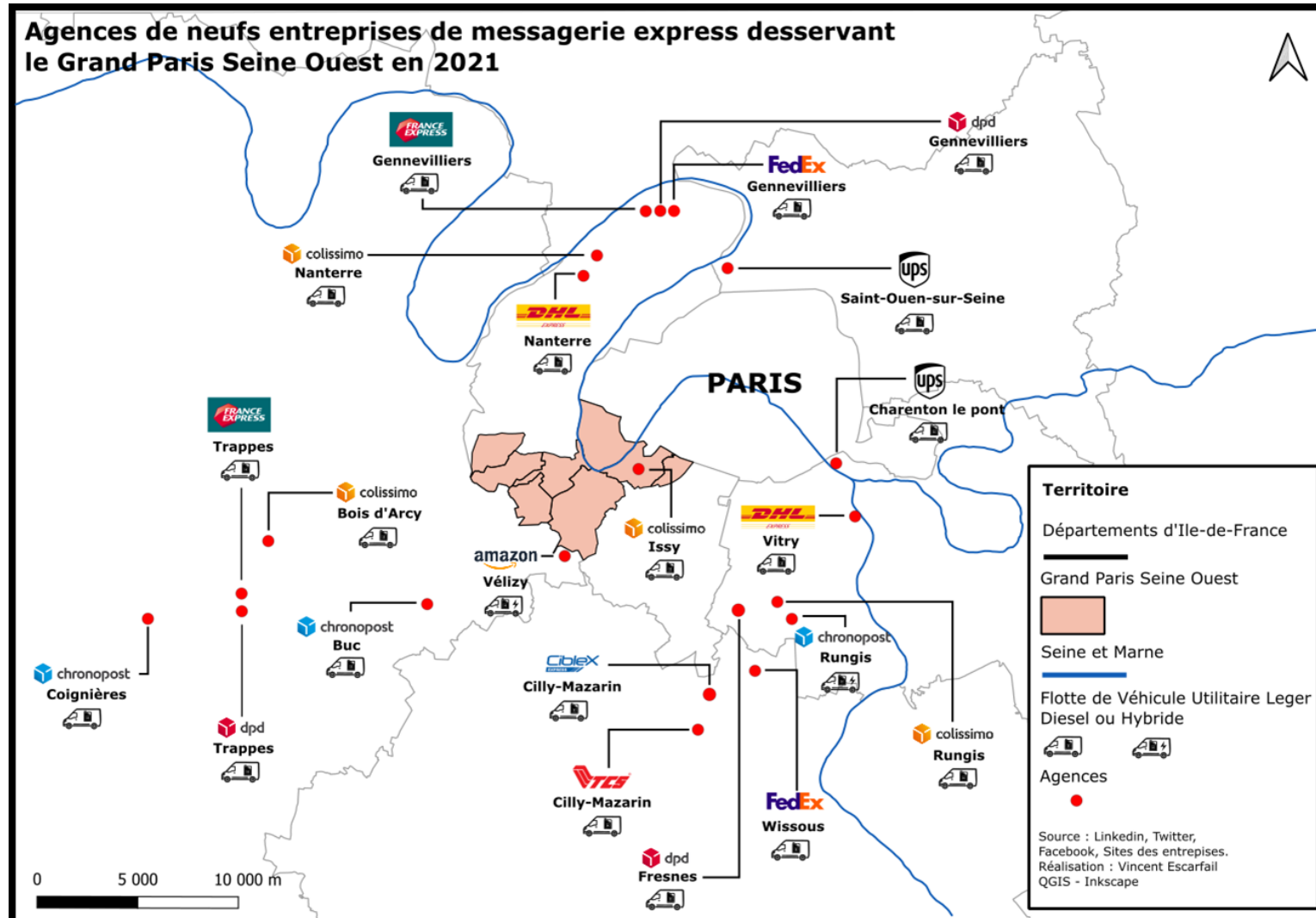
## Warehousing clusters in megaregions

T. Lecourt,  
 M. Schorung  
 Logistics City  
 Chair, 2021





# Location of hubs is not always based on spatial logic

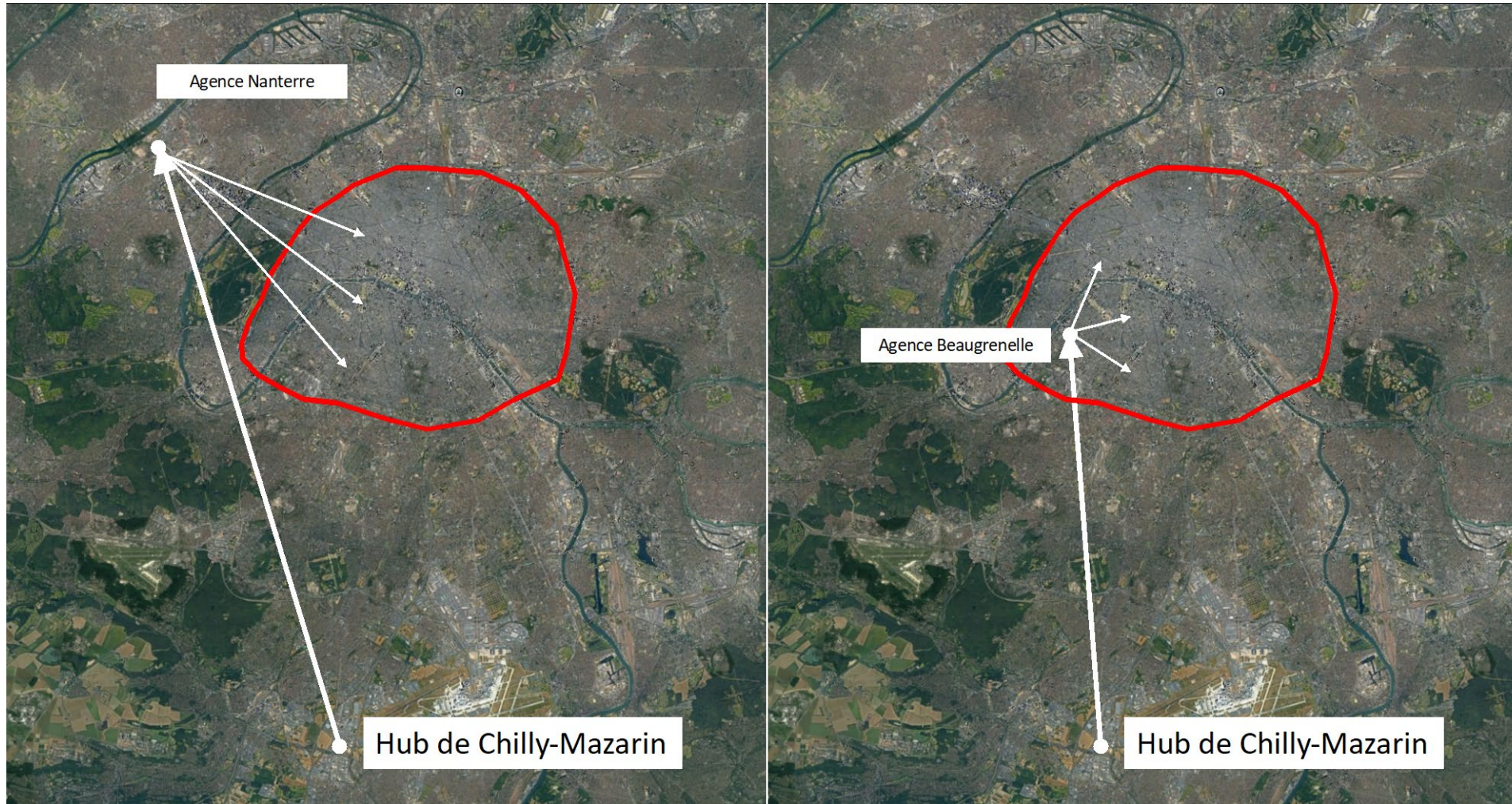


Escarfail,  
Logistics City  
Chair, 2021

# Urban hubs reduce overall CO<sub>2</sub> emissions from deliveries

Without an urban hub: 151 tons CO<sub>2</sub>/y

With an urban hub: 74 tons CO<sub>2</sub>/y

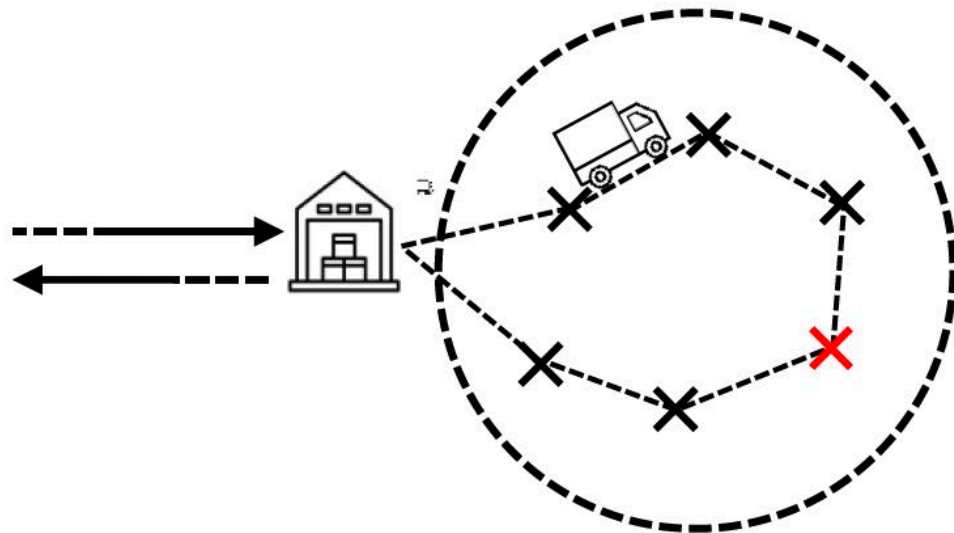


*Chronopost study  
Jonction 2017 +  
Grelier Chair  
Logistics City 2020*

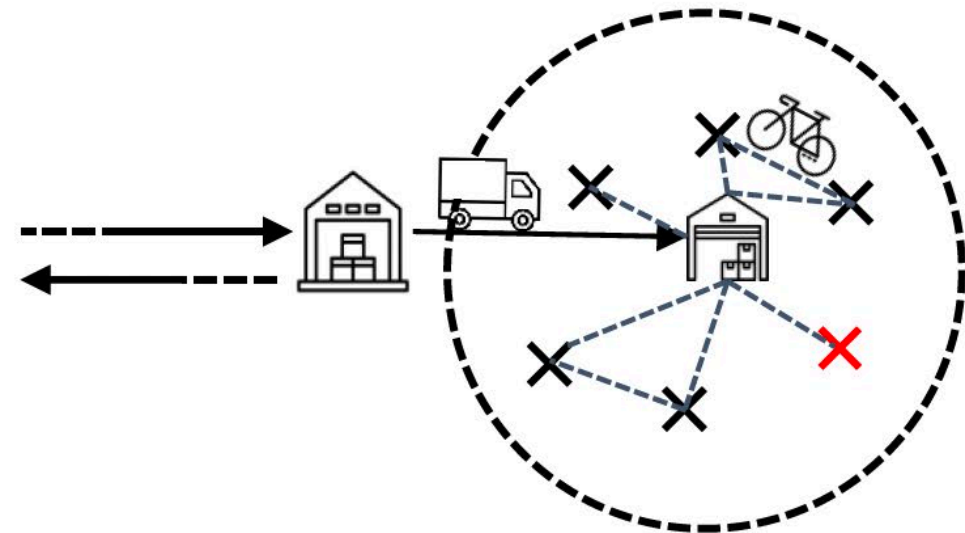


# A need for new urban terminals

Operation by trucks



Operation by cargo bikes



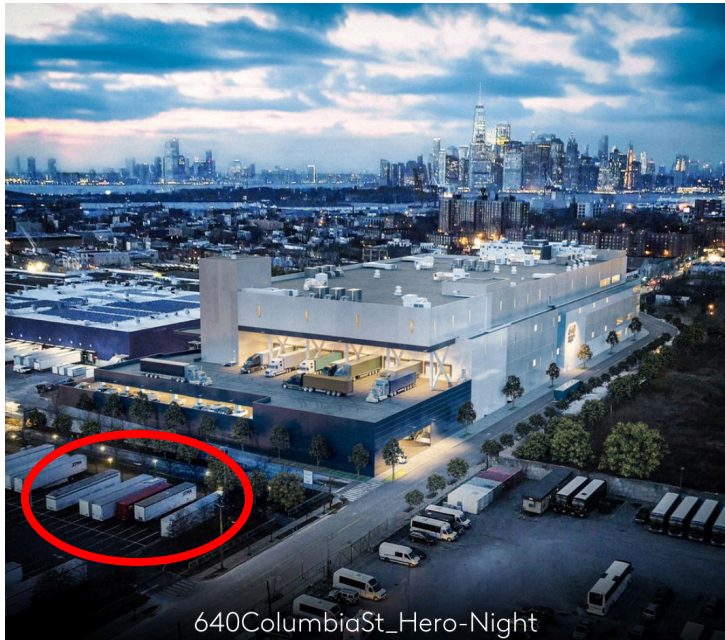
Robichet, 2023

# New urban warehouses are based on goods flow consolidation ... and use of trucks

Tokyo



Brooklyn



640ColumbiaSt\_Hero-Night

Paris



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



# New formats blend in city centers



Paris, February 2023  
Auchan klik&collect and Deliveroo rest  
area for delivery workers



New York City, June 2023  
Gopuff dark store with retail partners



# A discreet Amazon warehouse in Brooklyn/Red Hook



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

Dablanc, March 2022



# 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

# Delivery services from underground municipal car parks

Under the Louvre, Paris



Under Plaza Mayor, Madrid (FM Logistic Ibérica)



News

## CITYLogin opens micro-hub under Madrid's Plaza Mayor

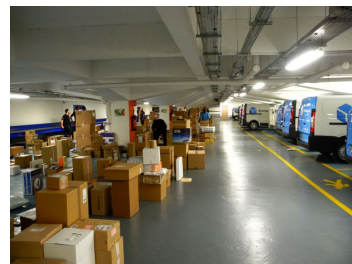
CITYLogin and Madrid's Municipal Transport Company (EMT) have inaugurated a micro-fulfilment centre under Plaza Mayor, the Spanish capital's famous main square. The 200-sqm...

On October 20, 2021

Opera



Beaugrenelle



Concorde





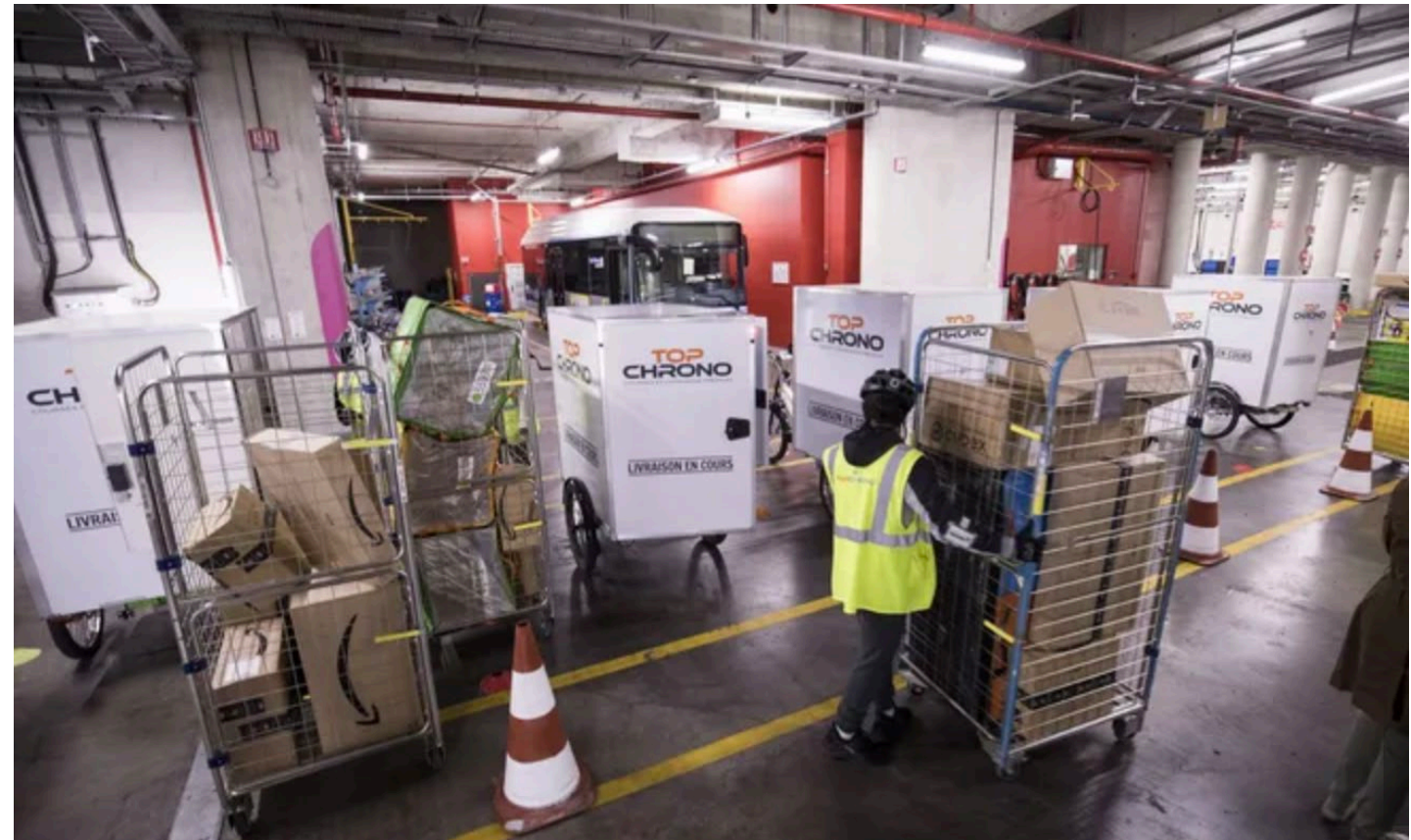
# Temporary rental and time-sharing

Swoopin, Paris 11th  
Six-month rental before  
redevelopment for social  
housing project



L. Dablanc

Amazon, Paris 14th  
use of of a bus depot during the day



F. Bouchon Le Figaro

# Ressources

- CHAIRE LOGISTICS CITY: [www.lvmt.fr/en/chaieres/logistics-city-sogaris/](http://www.lvmt.fr/en/chaieres/logistics-city-sogaris/)
- METROFREIGHT [www.metrotrans.org/metrofreight](http://www.metrotrans.org/metrofreight)
- Dablanc, L., Frémont, A. (Dir) (2015) *La métropole logistique*, Armand Colin
- Enquêtes sur les livraisons instantanées à Paris : <https://hal.archives-ouvertes.fr/hal-02374915>
- Browne, M., Behrends, S., Woxenius, J., Giuliano, G., Holguin-Veras, J. *Urban logistics. Management, policy and innovation in a rapidly changing environment*. Kogan Page, London
- Urban freight platform:  
<https://www.chalmers.se/en/centres/lead/urbanfreightplatform/Pages/default.aspx>

New book from Logistics City Chair

[https://drive.google.com/file/d/1pf7cskXY\\_aZdJiFr6uhg2J\\_7YQLTWiSv/view](https://drive.google.com/file/d/1pf7cskXY_aZdJiFr6uhg2J_7YQLTWiSv/view)

Sous la direction de  
Laetitia Dablanc et Antoine Frémont

## LA MÉTROPOLE LOGISTIQUE

LE TRANSPORT DE MARCHANDISES  
ET LE TERRITOIRE DES GRANDES VILLES



ARMAND COLIN



Gustave Eiffel



[laetitia.dablanc@univ-eiffel.fr](mailto:laetitia.dablanc@univ-eiffel.fr)

