

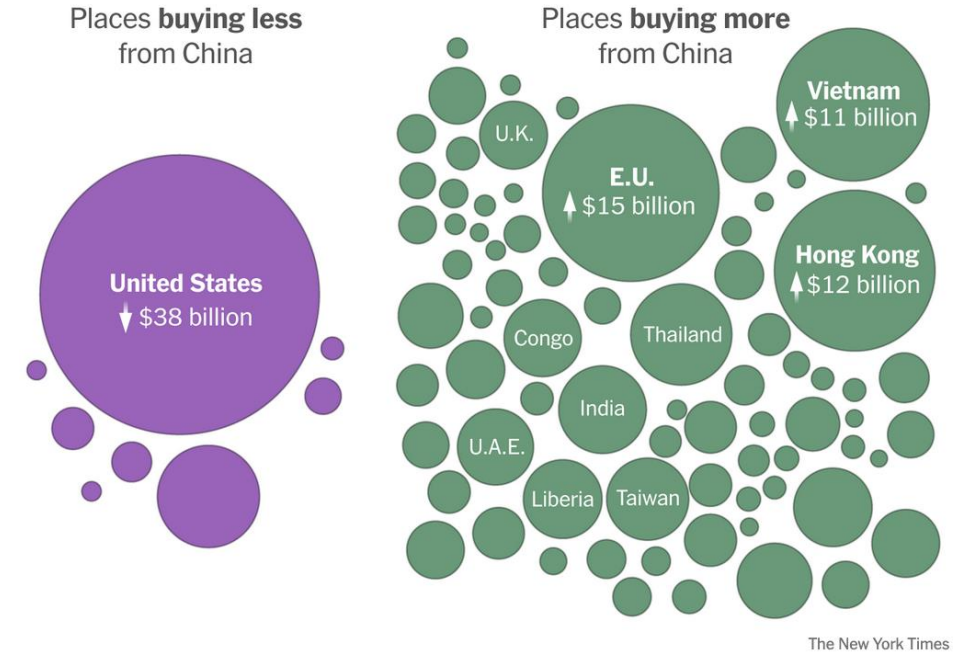
Sorbonne University Abu Dhabi
19 November 2025

Freight, Flows and Metropolitan Complexity: Understanding the Logistics Backbone of Global Cities

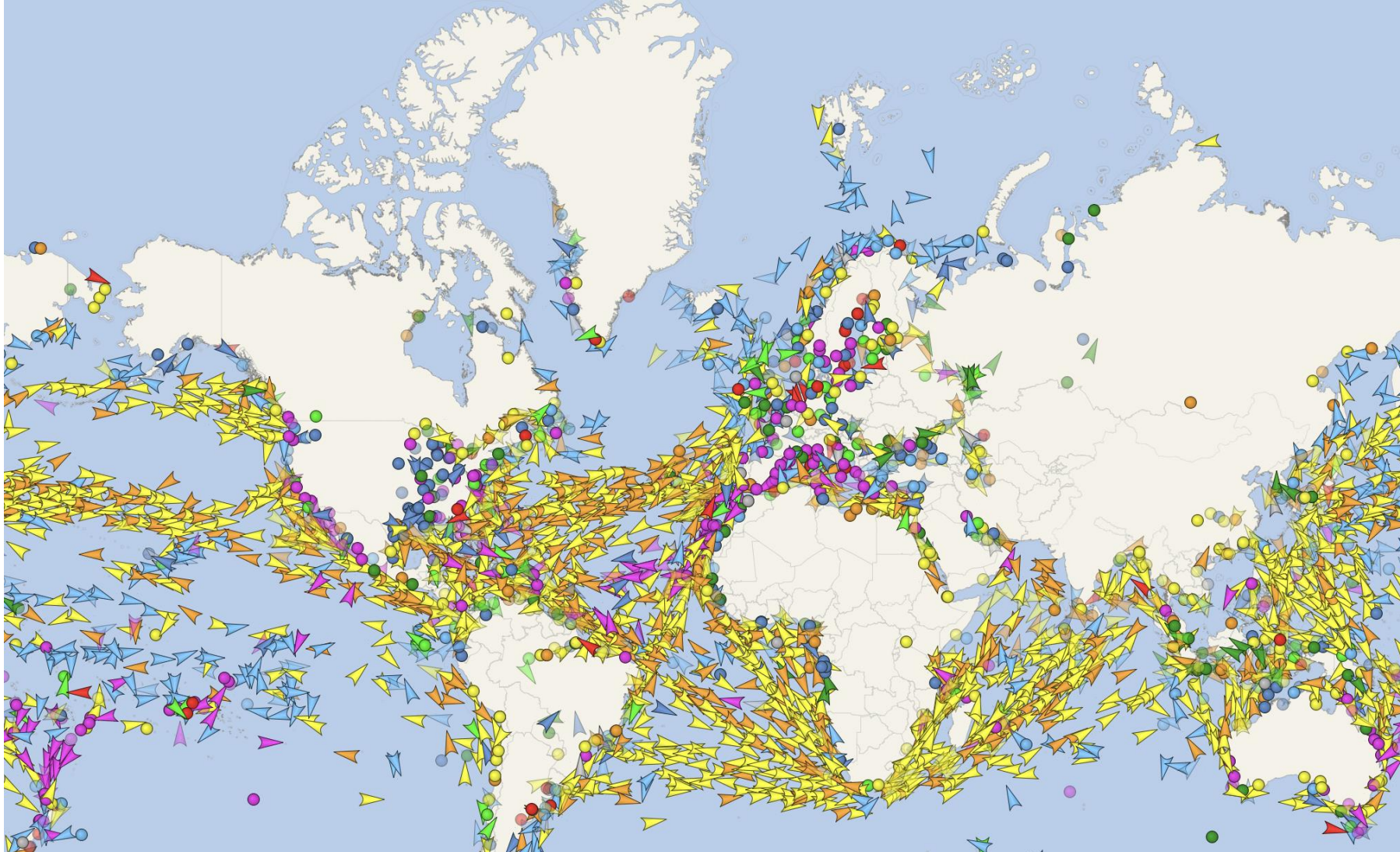
Dr. Laetitia Dablanc

Global supply chains remaining global

- Despite trade conflicts and disruptions, no reduction in demand for global supply chains, freight transportation, and warehousing
- International trade of goods
 - 45.5% of world GDP in 2002
 - 45% of world GDP in Q1-3 2025
- The geographies of product flows change



Maritime freight transport, 4 November 2025



Yellow: cargo
Orange: tankers

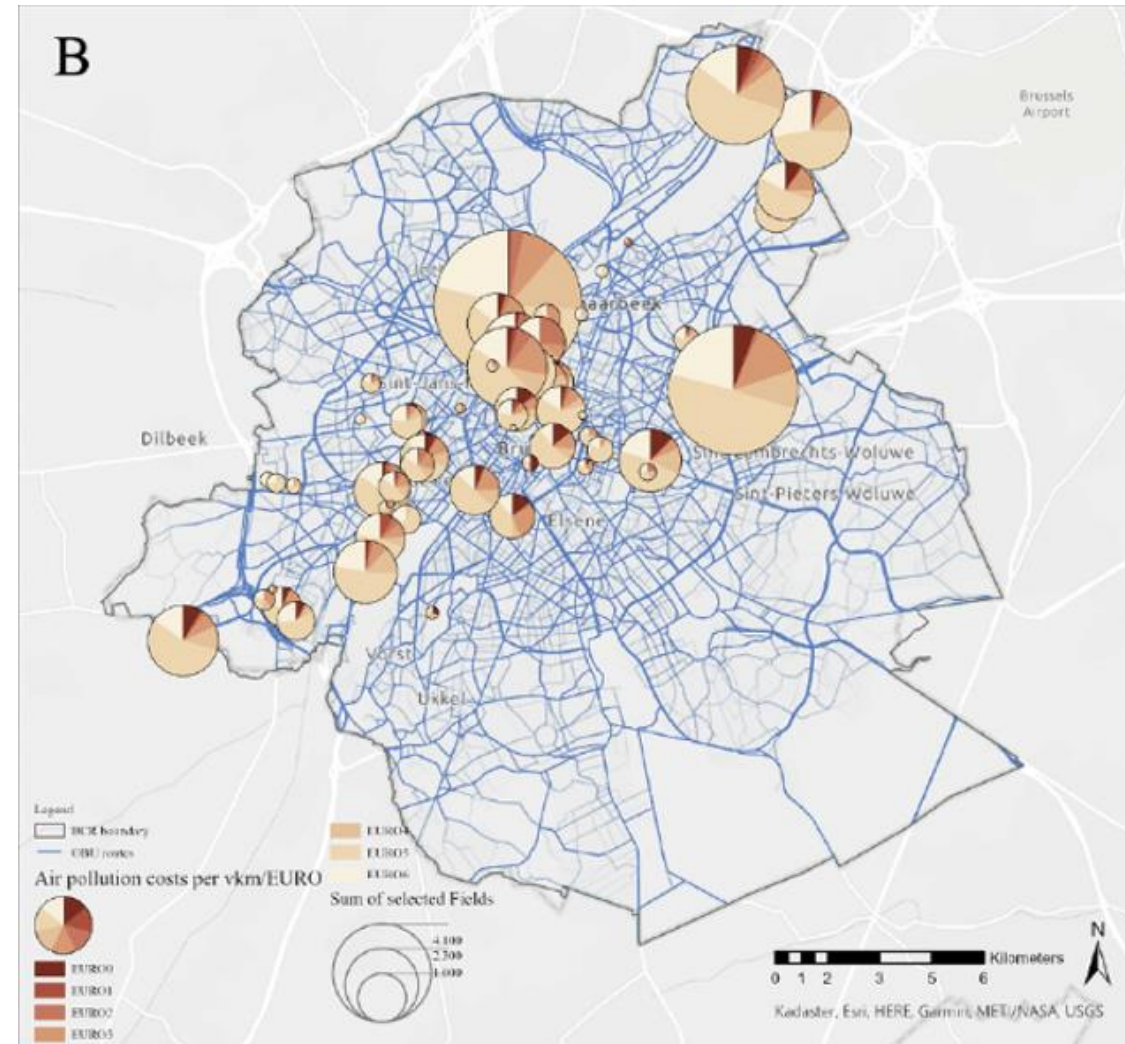
Global cities, freight and logistics

- **Data**
- **Driver of change**
- **Decarbonization**
- **Design**
- **Delivery hubs**

Data: freight data is everywhere but poorly captured by city planners

New access to urban freight data

- Truck pricing in Brussels
- Traffic and clean zone enforcement cameras
- Data sharing from logistics operators



Driver of change: deliveries as reasons for innovations and new types of regulation

Meituan drones in Shenzhen

- A network of landing bases that serve as pick-up parcel lockers
- A fixed set of flight corridors that are **easier to permit**



Decarbonization: logistics and electricity

Electric delivery vans and cargo-bikes in Paris

- Amazon deliveries: all pedestrian or electric
- DHL deliveries: all electric
- UberEats deliveries: 80% electric bikes (2025)



New warehouses: vertical and (over) producing electricity

- Rooftops as available surfaces for solar panels and vegetation
- Aligns with industry's long term objectives of reduction of energy costs while introducing short-term architectural constraints and costs



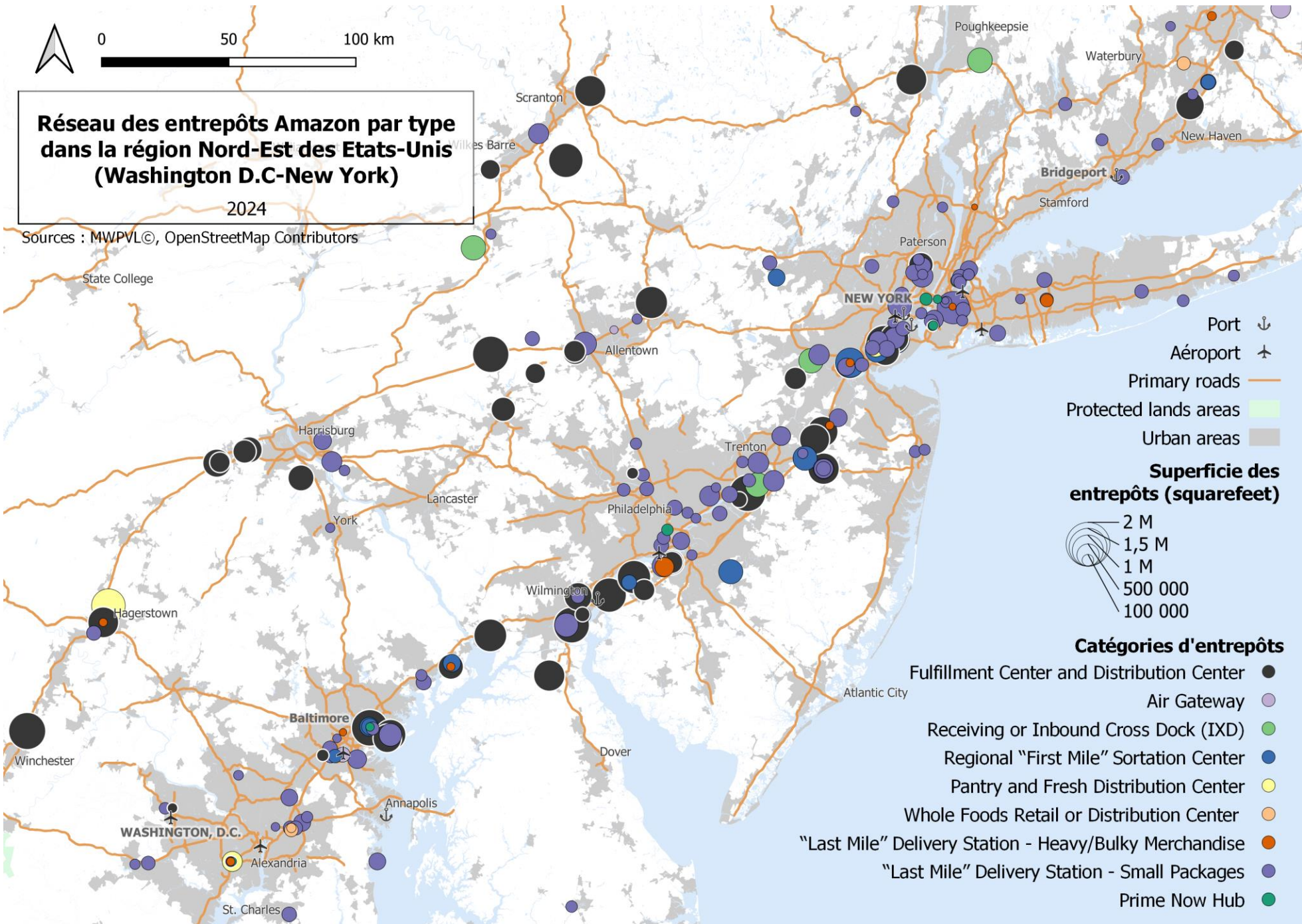
Tokyo, 2024

Prologis logistics facility project under construction in Paris (67,000 sqm)



Réseau des entrepôts Amazon par type dans la région Nord-Est des Etats-Unis (Washington D.C-New York)
2024

Sources : MWPVL©, OpenStreetMap Contributors



- Port ⚓
 - Aéroport ✈
 - Primary roads —
 - Protected lands areas —
 - Urban areas —
- Superficie des entrepôts (squarefeet)**
- 2 M
 - 1,5 M
 - 1 M
 - 500 000
 - 100 000
- 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 ●

Amazon warehouses from Washington DC to Boston

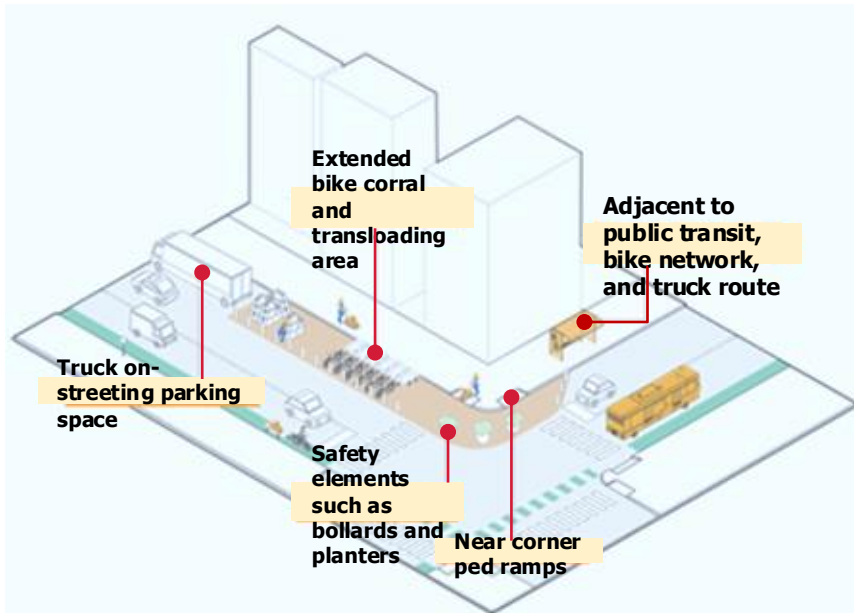
Schorung, Lecourt,
Chaire Logistics City



Design: redesign of public space for deliveries and delivery workers

Earth Day: NYC DOT Launches City's First Microhubs to Support Safer and More Sustainable Deliveries on City Streets

- Manhattan logistics microhubs since April 2025



A new microhub launching at Amsterdam Avenue and West 85th Street on the Upper West Side.

Credit: NYC DOT

Urban delivery hubs: require standardization and architects

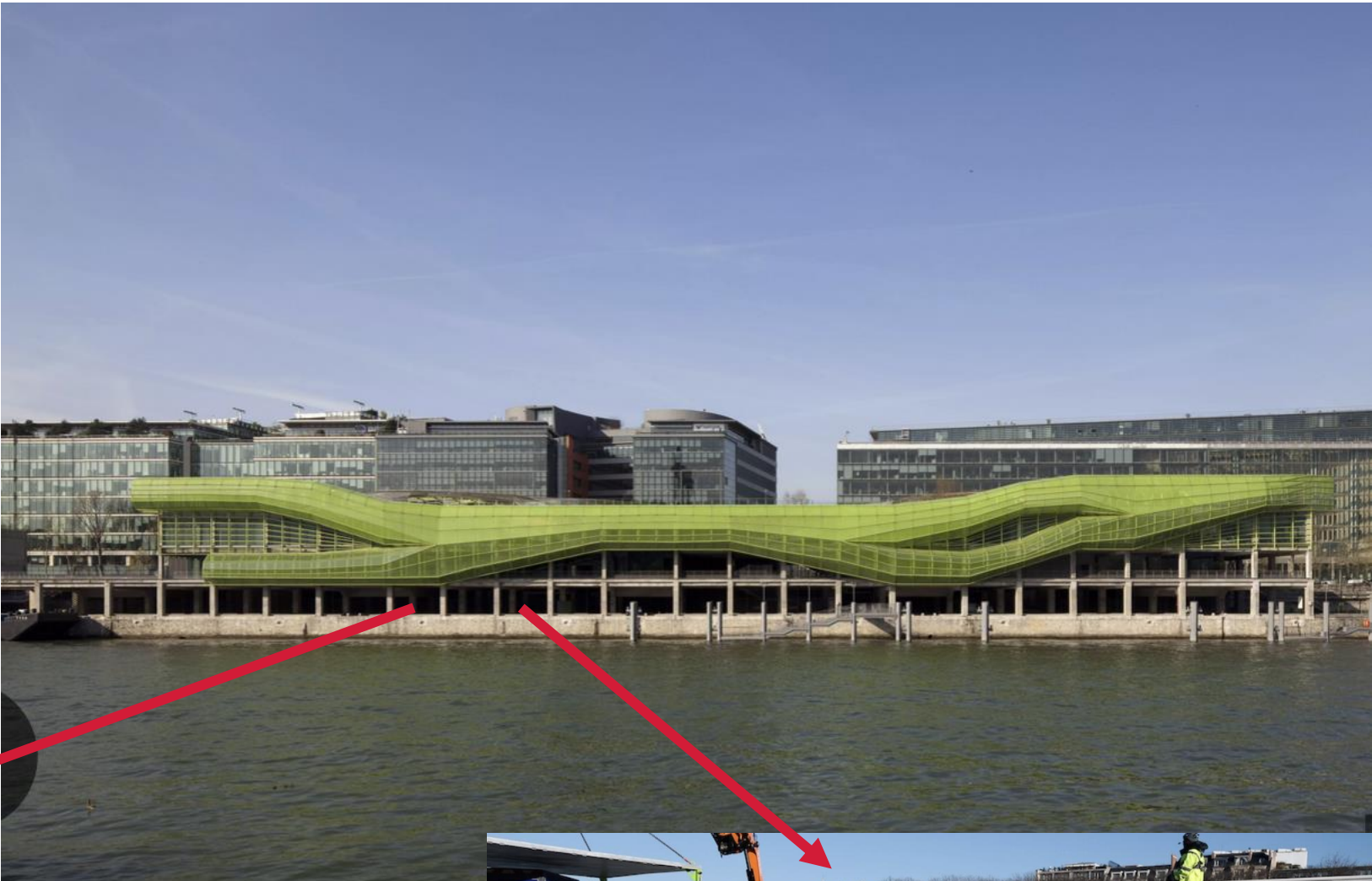
100 delivery hubs in the city of Paris today



- Under the Paris ring-road

Site de logistique P4 Porte de Pantin de Sogaris - Architecte Syvil

Under the fashion institute on the Seine

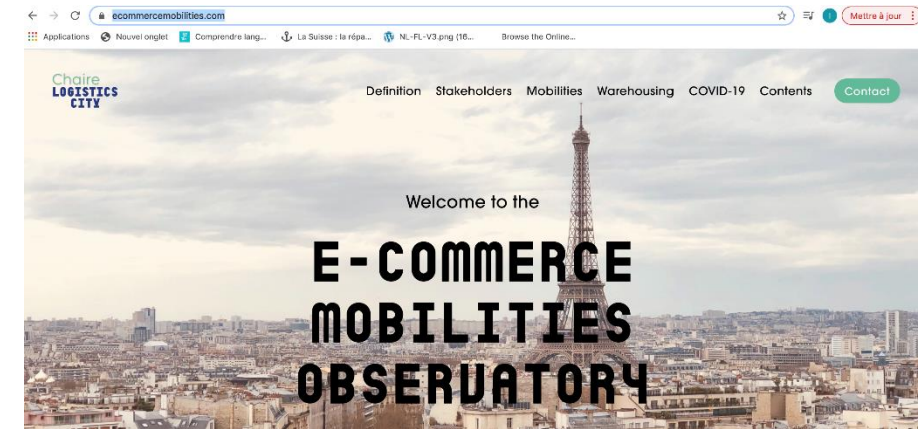


Conclusion

- Urban logistics changes rapidly and impacts local places
- New jobs and workers' vulnerabilities have to be addressed
- Better data is needed, cheaper and increasingly available sources provide new opportunities
- Decarbonization is actually easy

Logistics City Chair, University Gustave Eiffel, France

1. Warehouses, logistics real estate
2. E-commerce logistics
3. Public policies



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

Ressources

- LOGISTICS CITY CHAIR 2023 Urban and suburban logistics real estate <https://www.lvmt.fr/chaieres/logistics-city>
- Observatory of e-commerce mobilities <https://www.ecommercemobilities.com/>
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