

POLIS

CITIES AND REGIONS FOR TRANSPORT INNOVATION

ANNUAL
CONFERENCE

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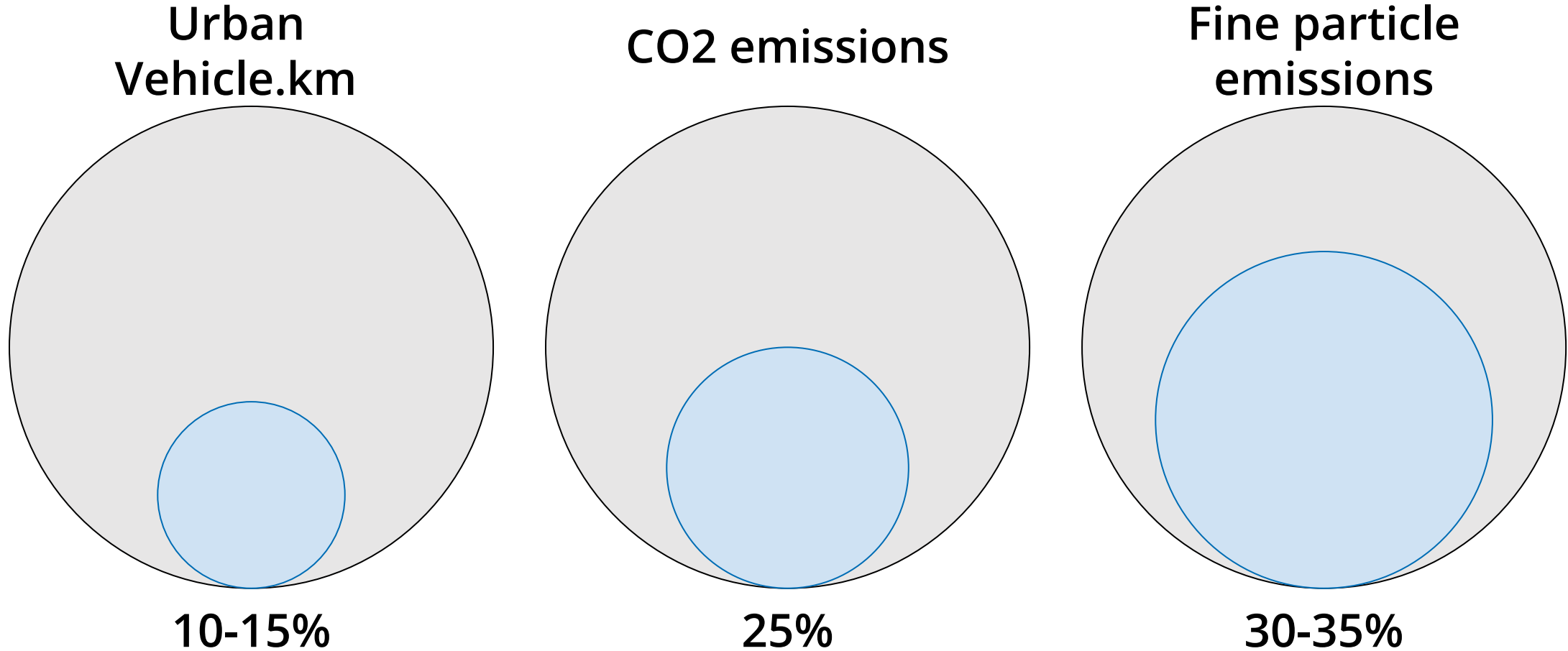
Cargo-bikes : a relevant solution for urban freight ?

3E. Multimodal and Zero-Emissions : Thinking out of the car-box

Jacques Menu, Urbike



The impacts of **urban logistics** are underestimated



From The Journal of Research on Brussels, Freight transport in Brussels and its impact on road traffic (Lebeau, P., & Macharis, C., 2014).

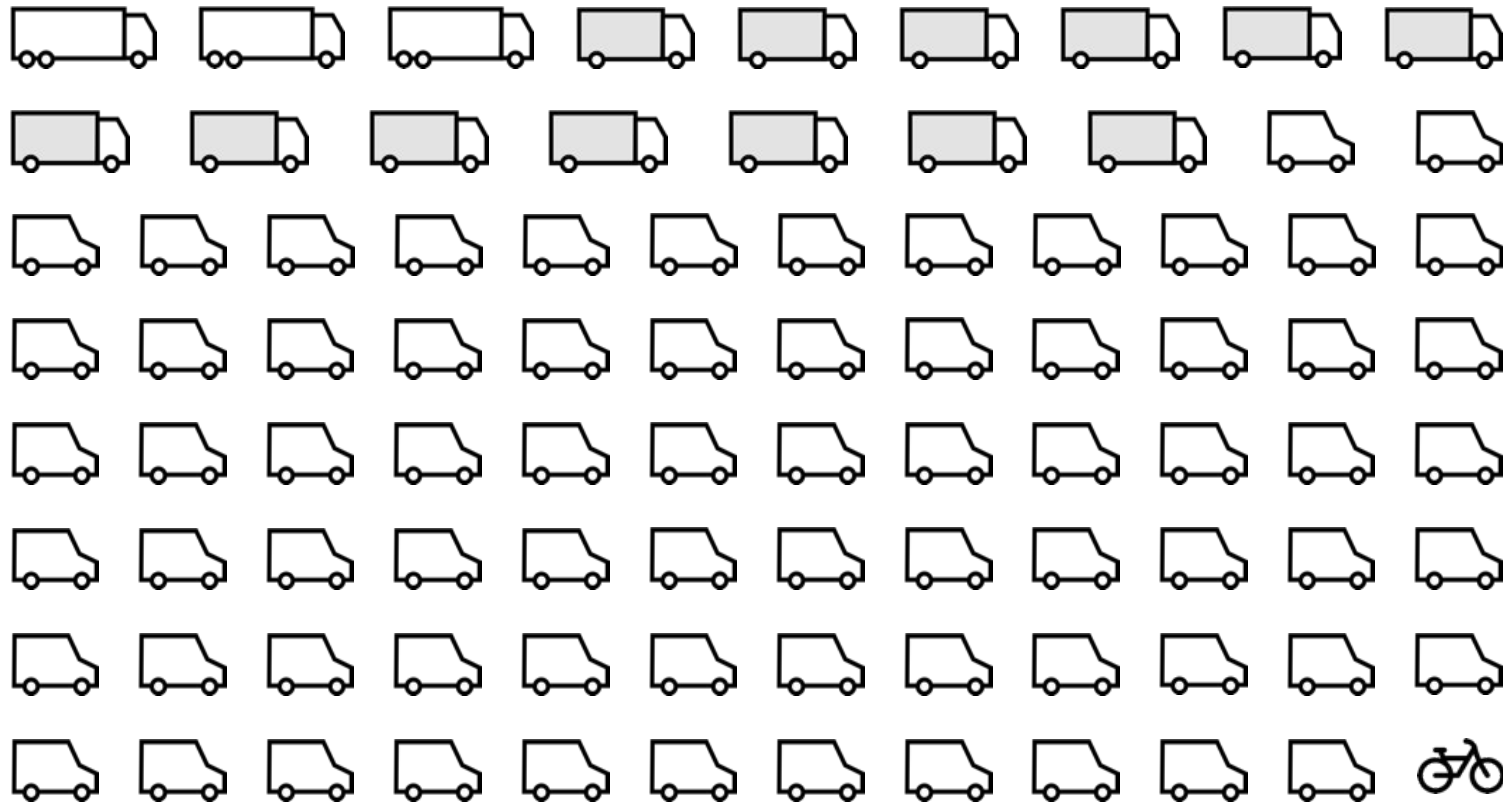


Cycle logistics is a part of the solution

		
External congestion cost	high	none
External climate change cost	moderate	none
External emission cost	moderate	none
External noise pollution cost	moderate	none
External accident cost	moderate	moderate
External wear & tear cost	moderate	none



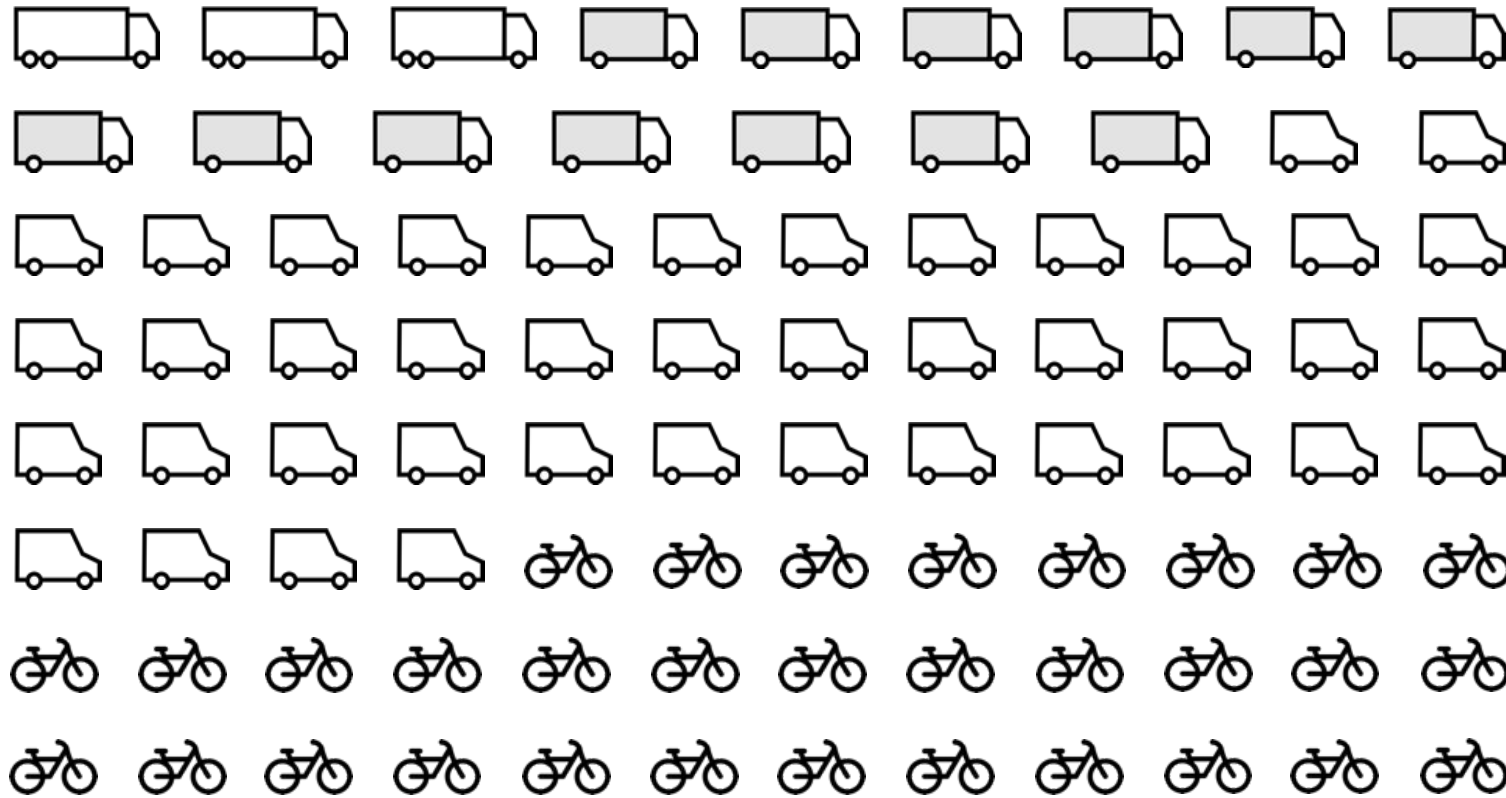
In Belgium, around **1%** of deliveries are made by bike



~ 1%



In most major European cities, **1 in 4 deliveries** could be made by bike



25%



Demonstrate **the efficiency of cargo bikes** for large scale adoption

- ✓ Shorter routes
- ✓ Travel speed
- ✓ Facilitated parking
- ✓ Reduced vehicle cost
- ✓ Reduced energy cost

- ✗ Reduced capacity
- ✗ Cost of transshipment
- ✗ Cost of transformation

Capacity : complementarity to other modes & adapted to urban environments



50 - 100 kg
0,2 - 1,0 m³

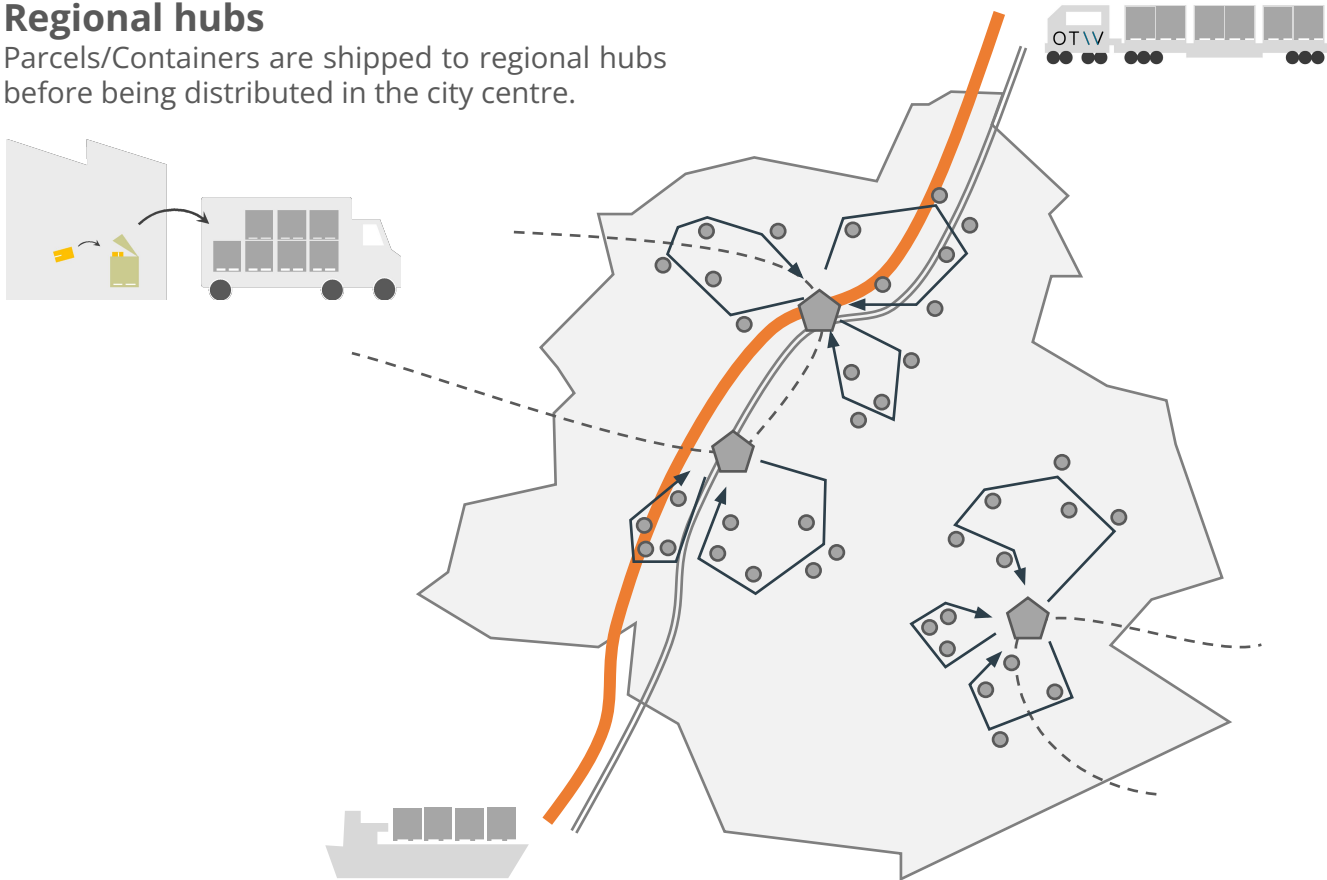
50 - 300 kg
0,5 - 1,5 m³



Transformation : from a car-centered to a multimodal model

Regional hubs

Parcels/Containers are shipped to regional hubs before being distributed in the city centre.



Micro hubs (mobile or physical)

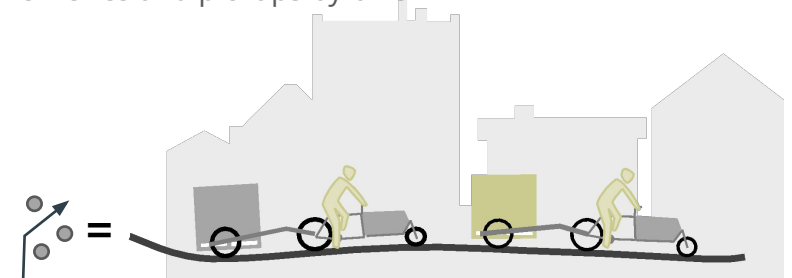
Micro hubs can be used to support the regional hubs.



Mobility hub
Parking
Warehouse
...

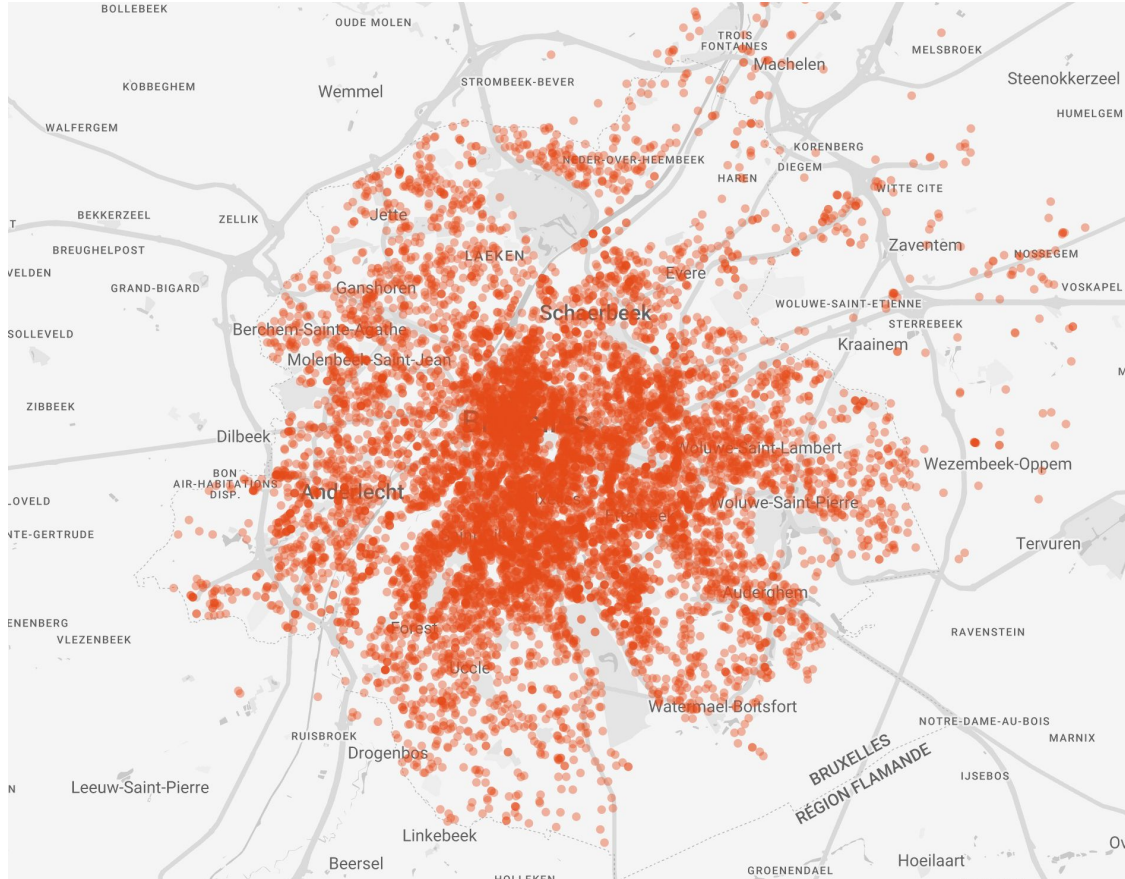
Final destinations (first and last-mile)

Deliveries and pickups by bike





Urbike : from concept to **practical application**



Urbike (2022)

- 250.000 parcel equivalents delivered by bike (+100%)
- 150.000 km cycled
- 35 bike coursiers active in Brussels & Ghent
- Fleet of 40 cargo bikes & 30 trailers



**Thank you for
your attention!**



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