

French Institute
of Science and
Technology
for Transport,
Development
and Networks



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CITY LOGISTICS IN EUROPEAN CITIES

Dr. Laetitia Dablanc
IFSTTAR, University of Paris-Est



IFSTTAR

Paris Sustainable City Logistics Charter, Sept 18, 2013

- One objective: half of delivery vehicles to be non diesel by 2017
- 16 measures to reach the objective
- One strategy missing: enforcement



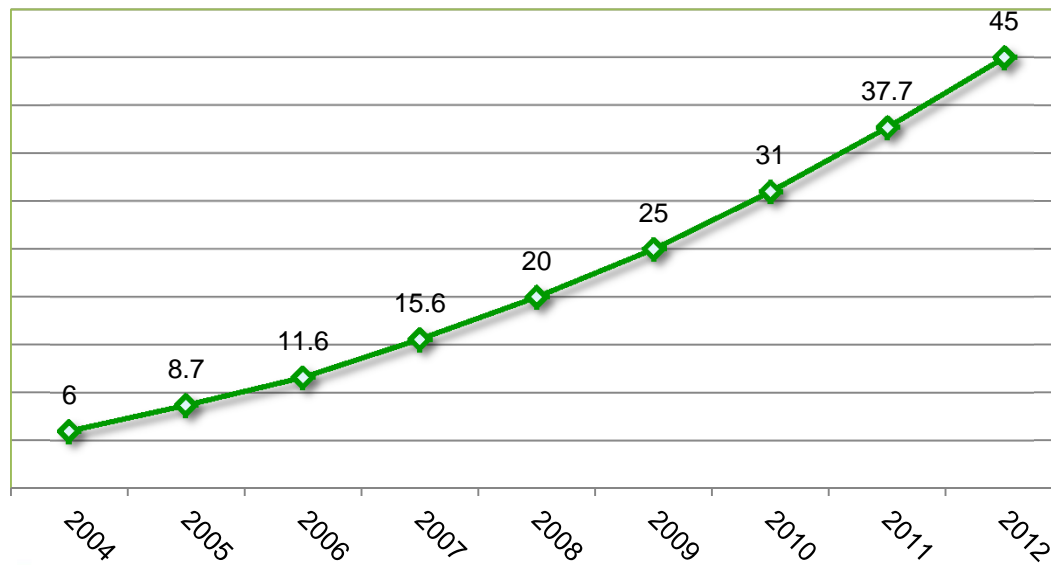
New demands for urban freight

- Clients are served despite difficult urban conditions
- The urban economy today:
 - Less inventory and more frequent deliveries
 - Less independent retail activities, more professional transport
 - More service activities, increased demand for express and courier
 - Explosion of e-commerce and home deliveries
- The Paris region: one million deliveries every day, of which 40% happening within the city of Paris, because of a very high concentration of jobs



E-commerce: fast increase since 2003

- Today, 9% of European retail value, 10% in the US
- 40% of UPS deliveries in the US and Canada
- 20% of French e-shoppers are delivered in drop off points, fast increase in supermarkets' « drives »



Social and environmental impacts

- A few innovative sectors, many routine operations
- 12,000 small freight transport companies in the Paris region, half of them not legally registered
- Freight: a quarter of urban transport-related CO₂, a third of NO_x and half of particulate matter



Five Best Practices identified

- Topic 1: Consultation and partnerships
- Topic 2: Innovative traffic and street space management
- Topic 3: Low emission zones, environmental access regulations
- Topic 4: Land use, logistics planning, building codes
- **Topic 5: Innovations in city logistics**

Topic 1: Consultation and partnerships

Discussing with the industry

- Negotiating with trucking and business organizations
- Paris Sustainable Urban Logistics Charter, September 18, 2013
- Freight Quality Partnerships in the UK
- Transport for London: FORS
 - FORS: Freight Operator Recognition Scheme
 - Bronze, silver or gold medals to truck companies



Topic 2: Innovative traffic and street space management



Multi use lanes in Barcelona

Six boulevards today are “multi use”

- 8 am to 10 am general traffic
- 10 am to 5 pm deliveries only
- 5 pm to 9 pm general traffic
- 9 pm to 8 am residential parking

Variable message signs inform drivers of the regulation in real time

Off-peak hour deliveries

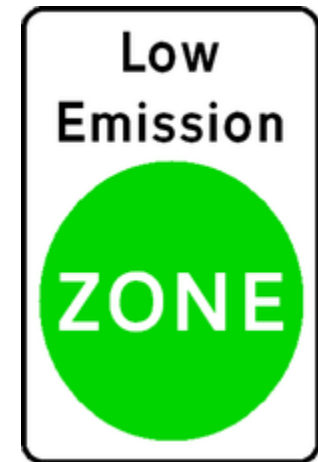
- In the Netherlands, the PIEK program develops silent delivery equipment and vehicles
- Dublin, Paris and Barcelona : test of deliveries to urban stores very early in the morning



Topic 3: low emission zones, environmental access regulations

London Low Emission Zone

- For all trucks and large vans
- All the metropolitan area
- Old trucks pay a charge of £100 or 200 per day
- Plate-reading and recognition system



Monitoring CCTV

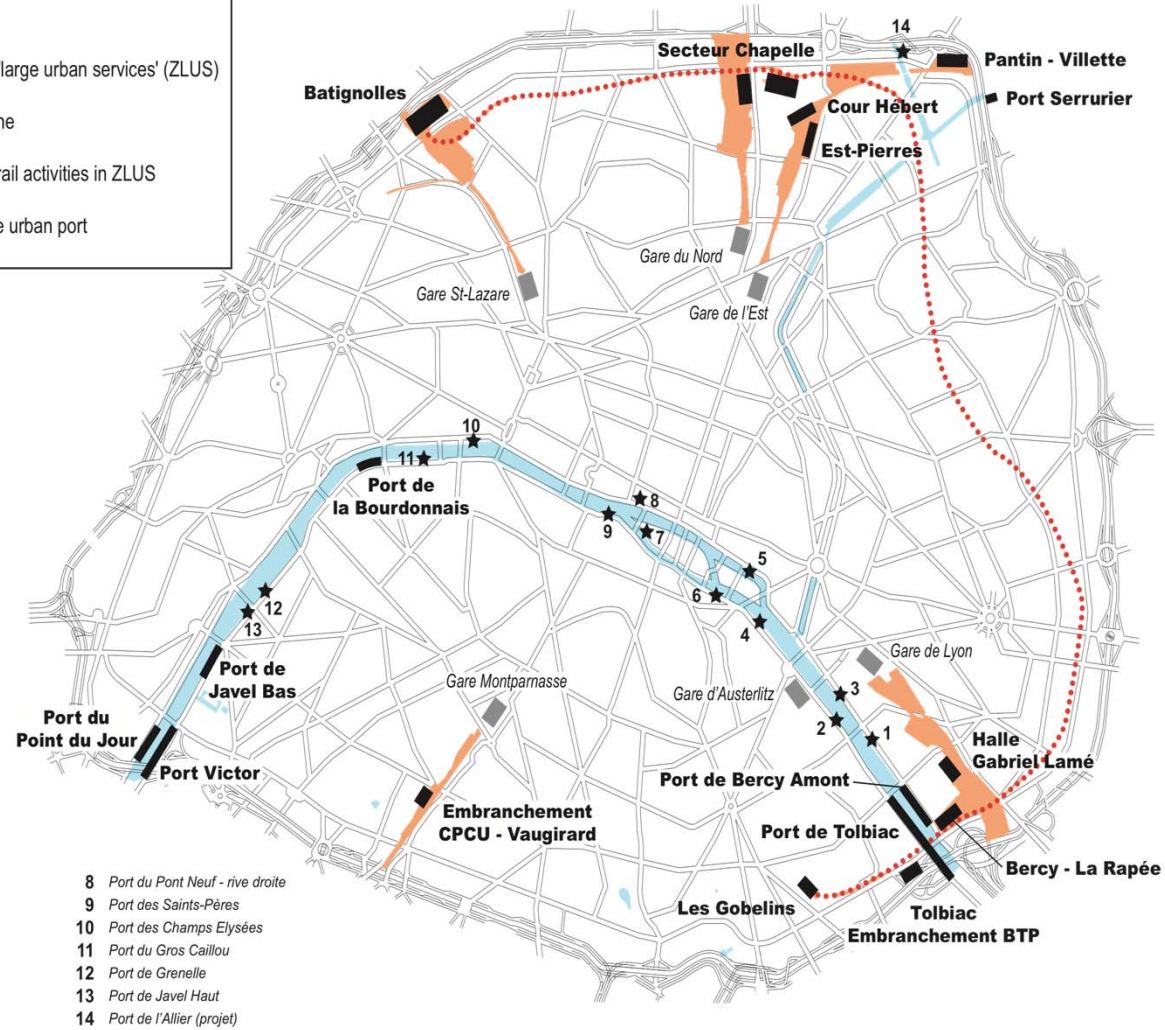
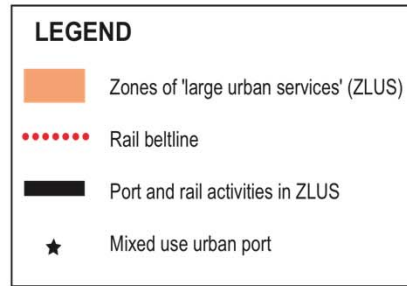
Topic 4: Logistics planning, building codes

Accommodating logistics in cities

- In Tokyo, logistics terminals are part of the urban environment
- a Prologis multi-story logistics terminal located in a central neighborhood of Tokyo



Logistics in the Paris land use master plan



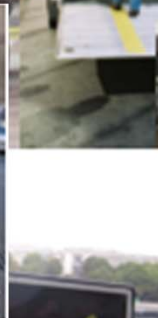
Building code regulations

Barcelona's zoning code:

- Off-street delivery bays for commercial/industrial buildings over 400 m²
- Storage area for bottles in all new bars and restaurants
- All car parks close to food markets must provide a space for truck parking

Topic 5: City Logistics

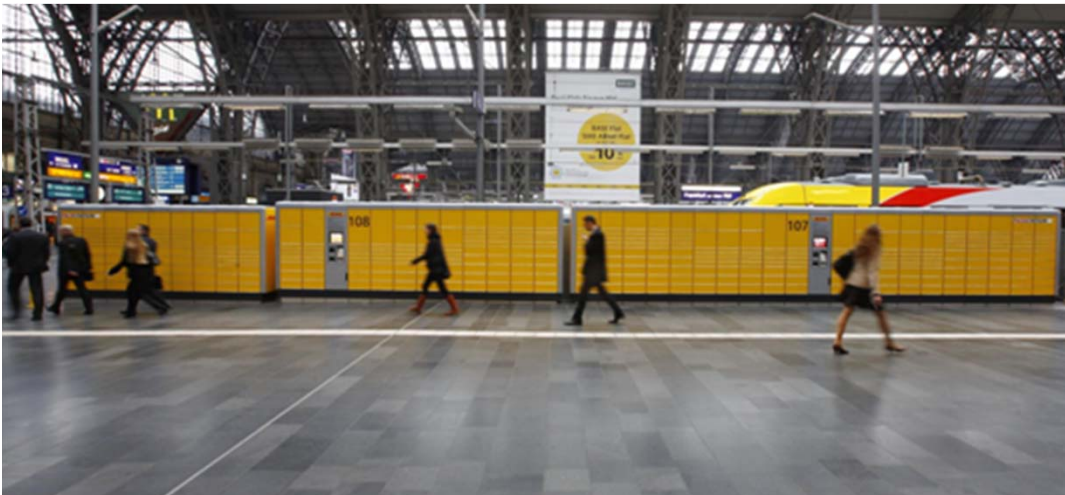
- Optimised management of the movement of goods in cities to provide innovative sustainable responses to customer demands
- Many new players in Europe: Star's Service, Shurgard, Kiala, La Petite Reine, Green Logistics, Colizen, Cargo Hopper, ByBox
- New concepts: pick up points, automated locker banks, urban consolidation centers, electrically assisted cargo tricycles, use of waterways, rail and public transit



- Star's Service (2000 employees) has become the main partner for French grocery e-commerce companies, with a high tech vehicle fleet



Pick up points: ByBox, Kiala (UPS), Packstations (DHL)



Cargo-cycles and electric vans in European cities' core business districts

- Start-up companies (The Green Link, Colizen)
- DHL, TNT, FedEx, UPS
- Large companies: Office Depot in London, L'Oreal, Sephora in Paris



Cargo Hopper in Utrecht (the Netherlands)

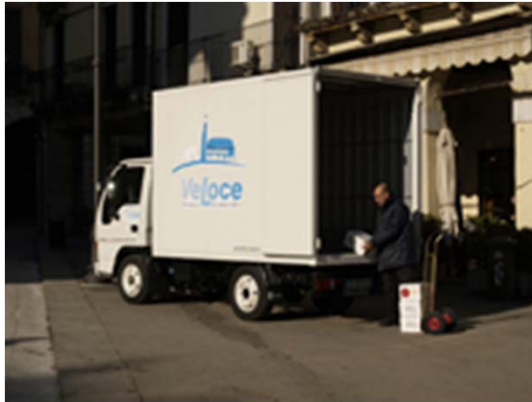


- Electric 'little trains' of vans
- A large truck from Hoek, a major Dutch carrier, brings the 3 mini trailers every day and places them on chassis
- Solar panels on the trailers' roof



Barge + cargo-cycles in Paris





VELOCE (Italy)
Vicenza Eco LOGistics
CEnter



Bristol consolidation
center (UK)



ELCIDIS (ELECTRIC CLTY
DISTRIBUTION center, La
Rochelle, France)

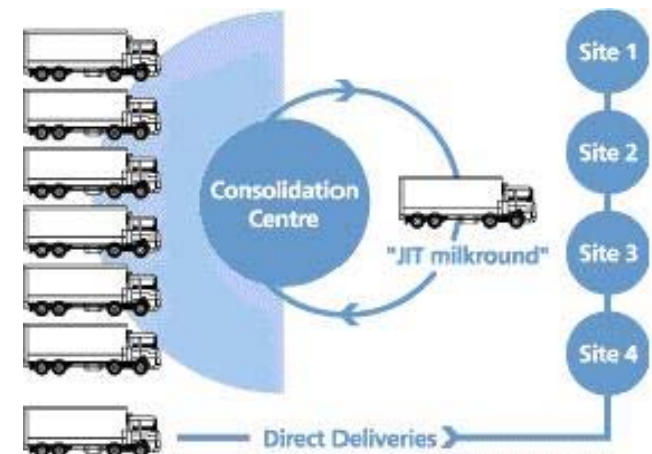
More than 150
**Urban
Consolidation
Centers** in Europe in
the 1990s, about 20
today

London Construction Consolidation Centre

The LCCC (2006 – 2009) was financed by Transport for London and private developers

Main results

- Reduction of 68% of the number of vehicles delivering or picking material to the building sites served by the LCCC
- Average reduction of 2 hours for the delivery time (including loading/unloading) of building supplies
- CO2 emissions reduced by 75%
- But costly



Few alternatives to road transport in cities

- A major cargo-tram project in Amsterdam, called City-Cargo bankrupt in 2009
- Rail freight: impacts, cost and lack of available infrastructure capacity because of a growing passenger rail traffic
- The Monoprix and Franprix experiments in Paris



The Monoprix rail experiment in Paris



- 90 Monoprix supermarkets supplied by rail since 2007
- Trains arrive in a renovated freight terminal close to the center of Paris
- CNG trucks for the final distribution
- +14% costs/pallet

Conclusion

- Urban freight represents many jobs and an important economic asset for cities
- And many environmental impacts
- Local decision-makers can implement simple and effective policies to address part of the issues
- Many freight and logistics issues depend on the economics or on long-term national policies that cannot be properly addressed at the local level

References

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