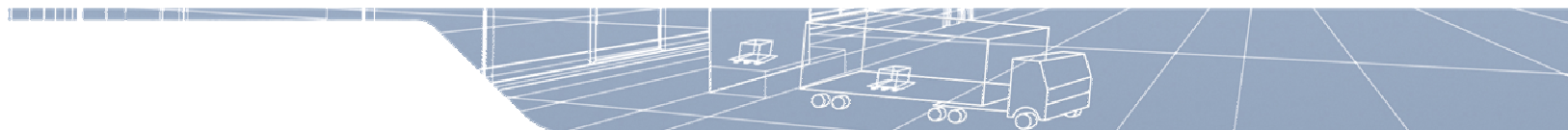


LOGISTIC SPRAWL AND THE ENERGY EFFICIENCY OF GOODS' MOVEMENTS IN PARIS

Laetitia Dablanc & Dina Rakotonarivo
Paris, November 25th 2009

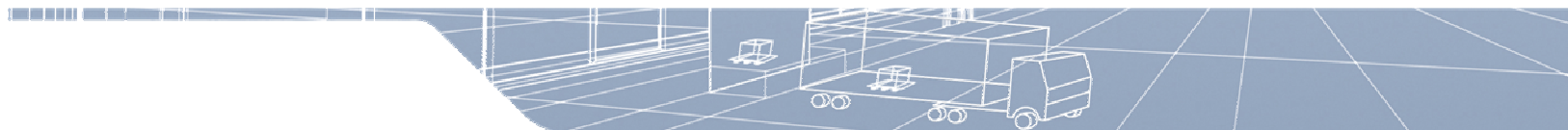


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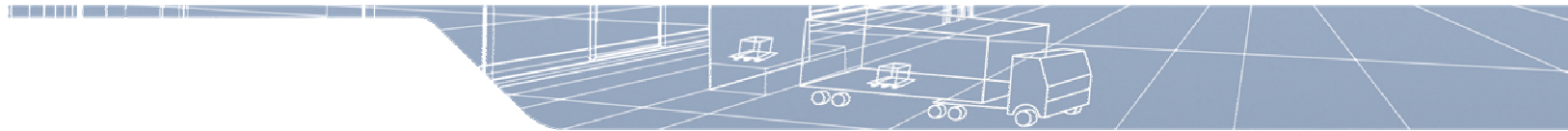
Objectives

- **TO VERIFY THE PROCESS OF ‘LOGISTIC SPRAWL’ USING THE CASE OF PARCEL TRANSPORT TERMINALS IN THE PARIS REGION**
- **TO DISCUSS ITS IMPACTS ON PARIS URBAN GOOD’S MOVEMENTS IN TERMS OF CO2 EMISSIONS**
- **TO DISCUSS POLICY IMPLICATIONS**



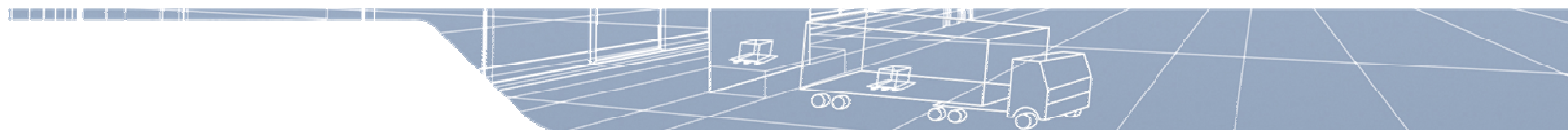
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- 1. Introduction**
- 2. Logistic sprawl: the change in the location of cross-dock terminals in the Paris Region overtime (1974 – 2008)**
- 3. CO2 impact assessment of logistics sprawl**
- 4. Logistic planning and public policy issues**



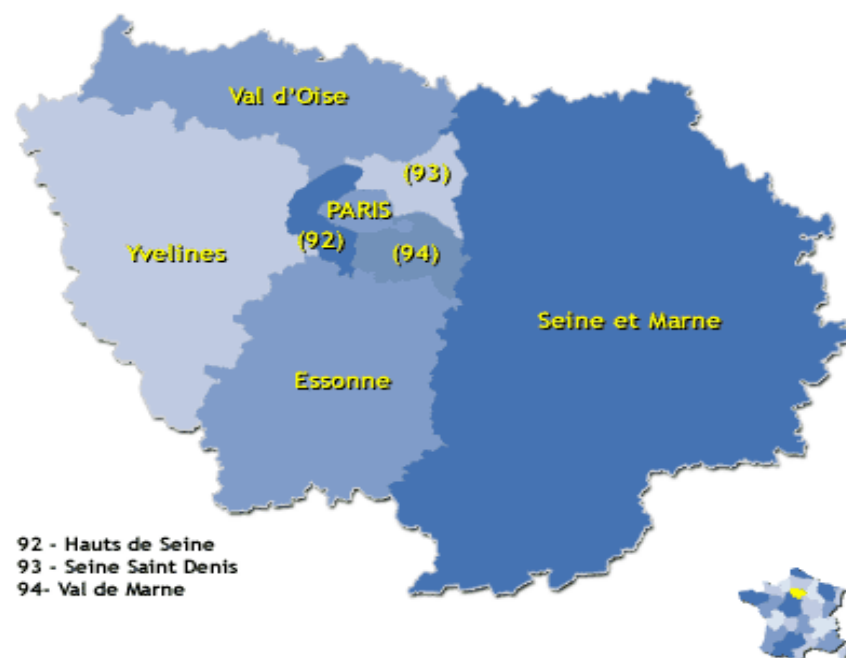
Introduction

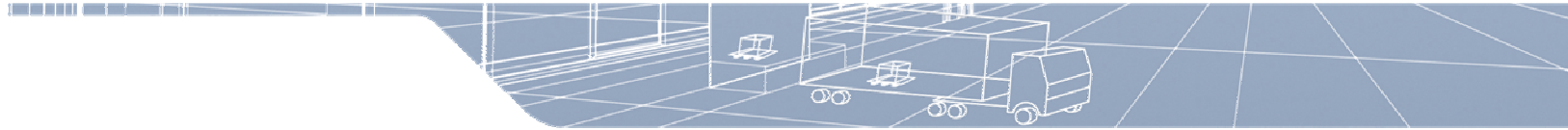
- **Paris: 32 tonnes of goods per inhabitant per year**
 - Ambitious freight transport strategy since 2002: city logistics experiments
- **Paris Region: ‘flight’ of many logistics facilities to the suburbs**
- **Parcel and express transport market: an important share of goods’ transport in large European cities (Paris)**



Logistic sprawl : THE CHANGE OF THE LOCATION OF CROSS-DOCK TERMINALS IN THE PARIS REGION (1974 – 2008)

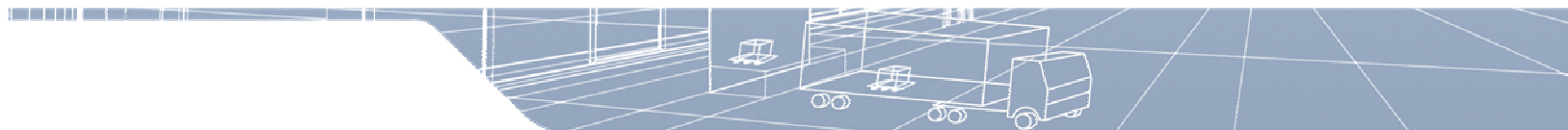
Paris Region: the Ile-de-France region and its eight departments



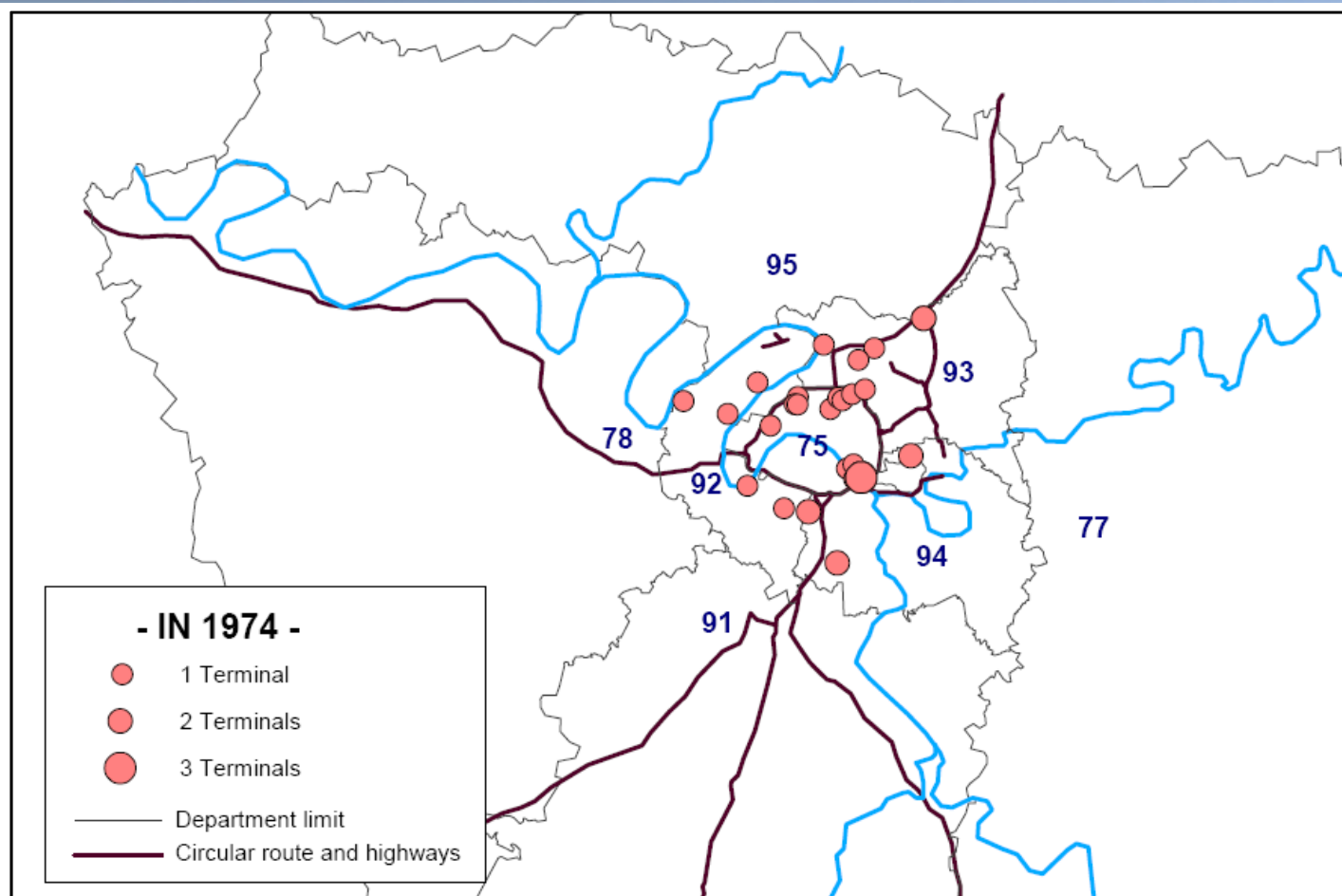


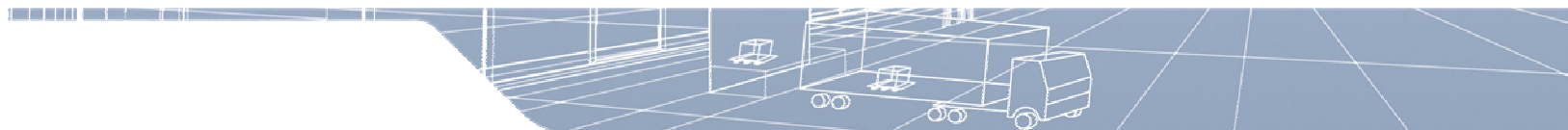
Logistic sprawl : THE CHANGE OF THE LOCATION OF CROSS-DOCK TERMINALS IN THE PARIS REGION (1974 – 2008)

- *Context:*
 - 1965: the Paris region's Land Use Master Plan → Development of 'new towns' around Paris
 - Severe land pressure in Paris, urban renewal projects
 - ☞ 1960s and 1970s: centrifugal locational pattern for logistics and transport companies
 - Cost of land in Paris: obstacle to the development of vast and modern logistics facilities ☞ possible in the far suburbs

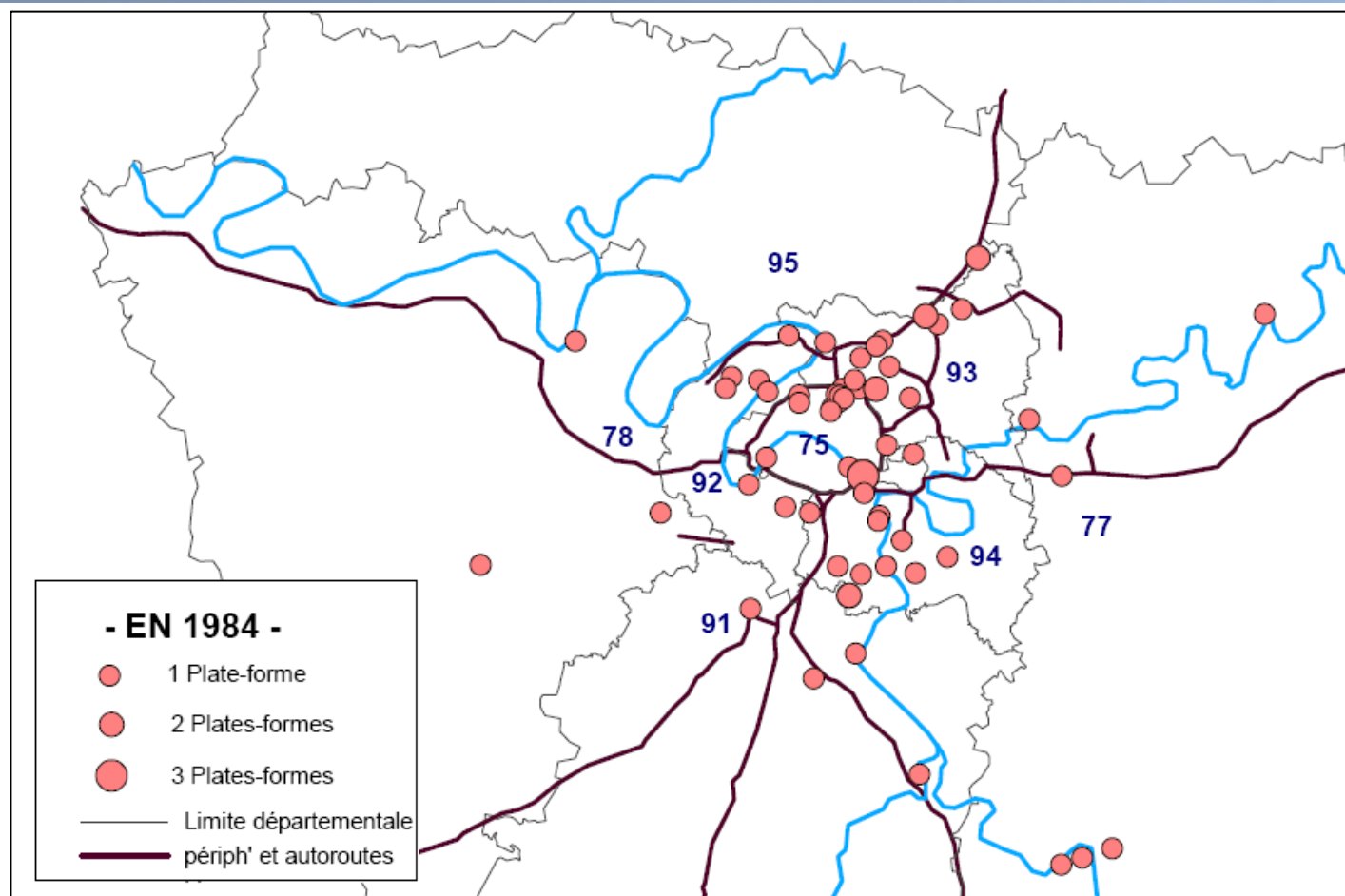


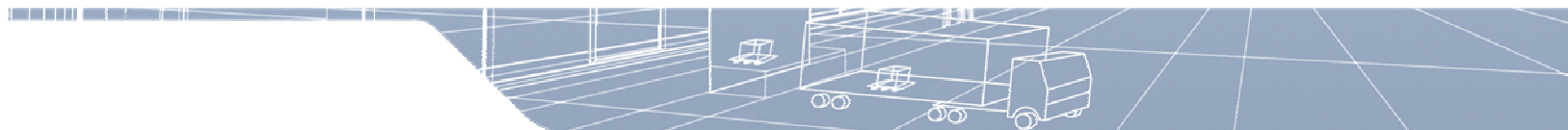
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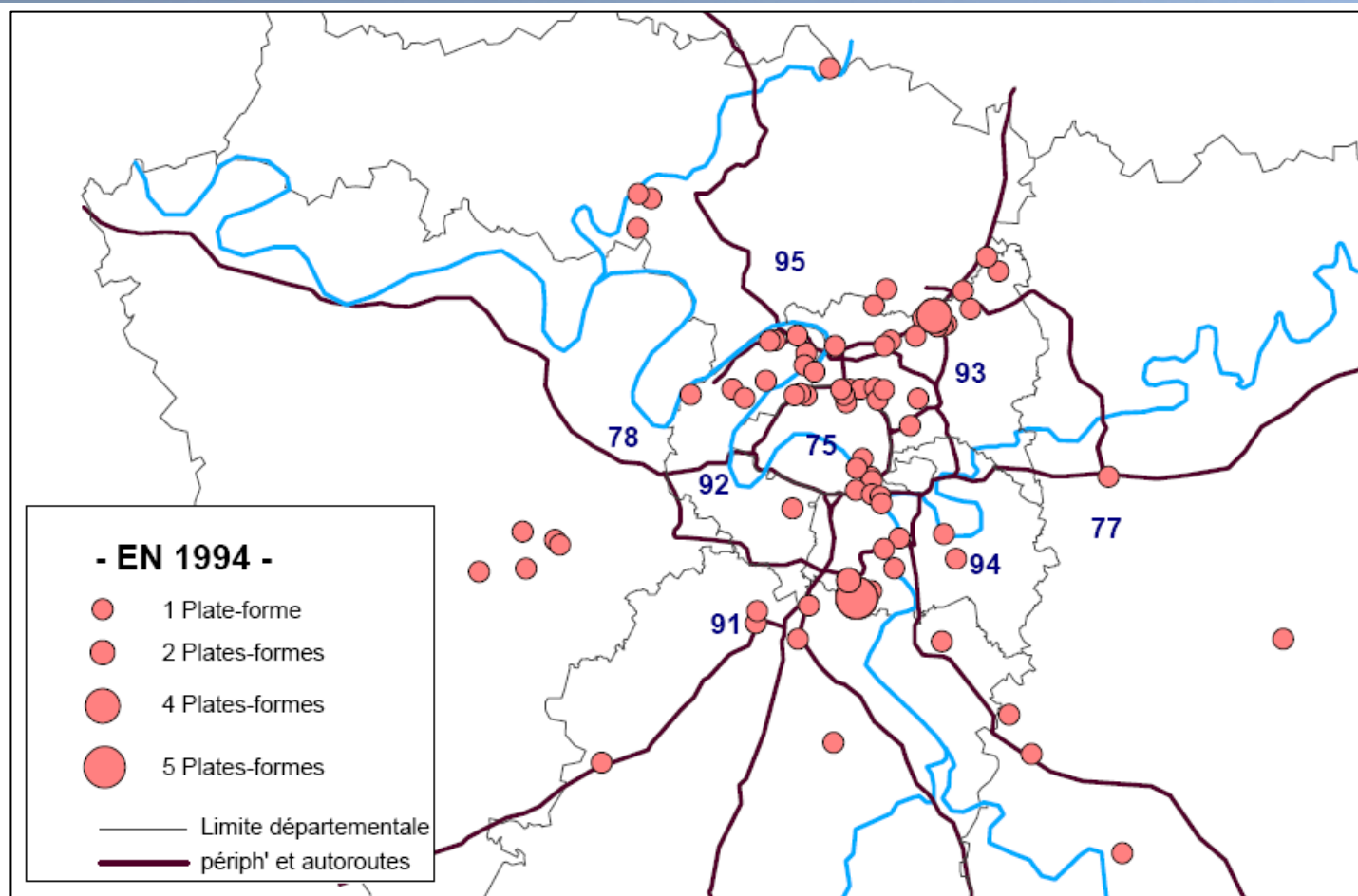


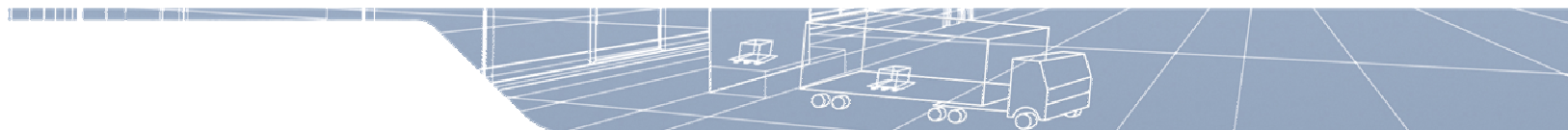
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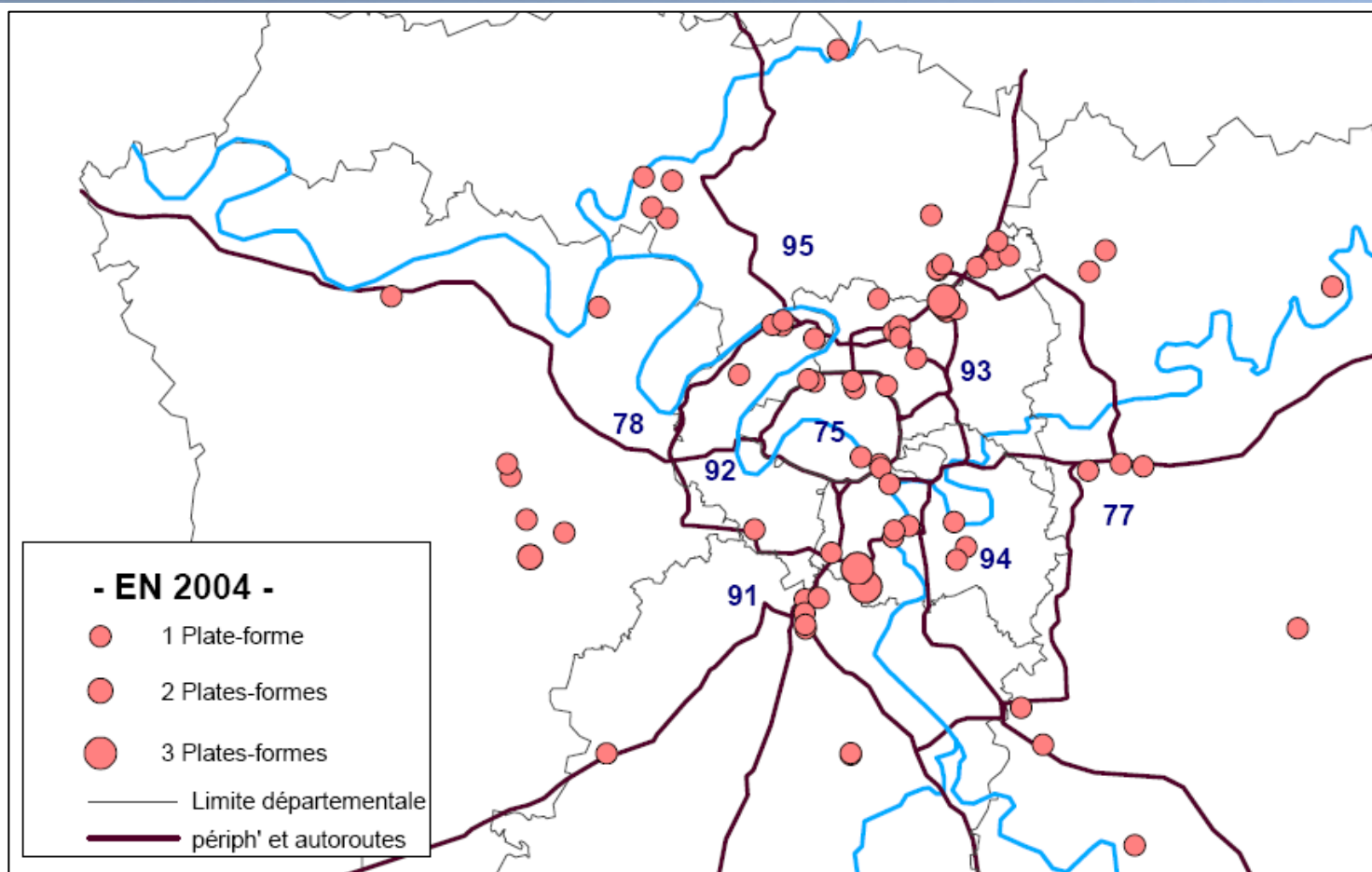


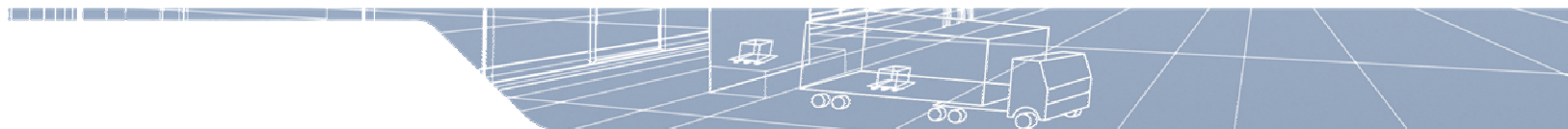
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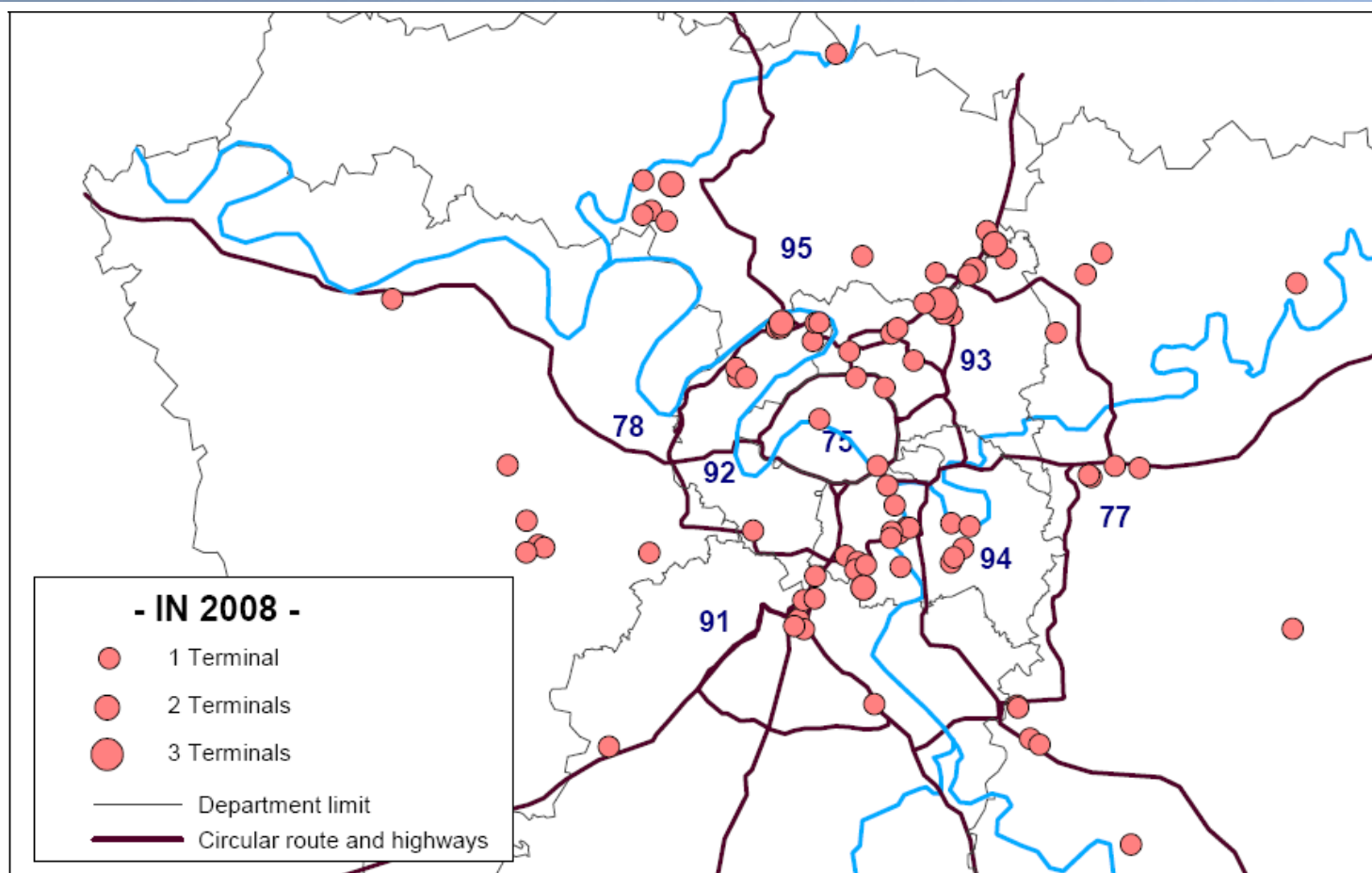


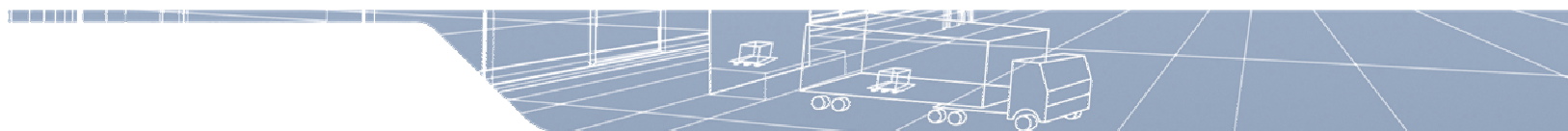
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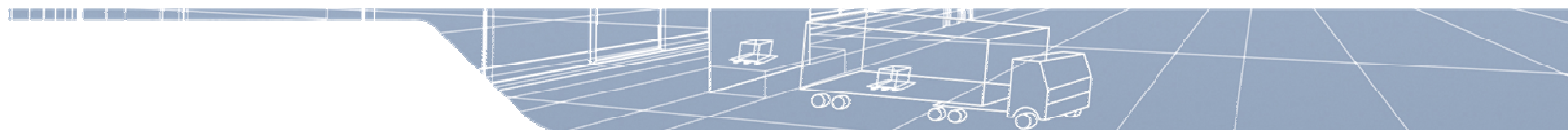


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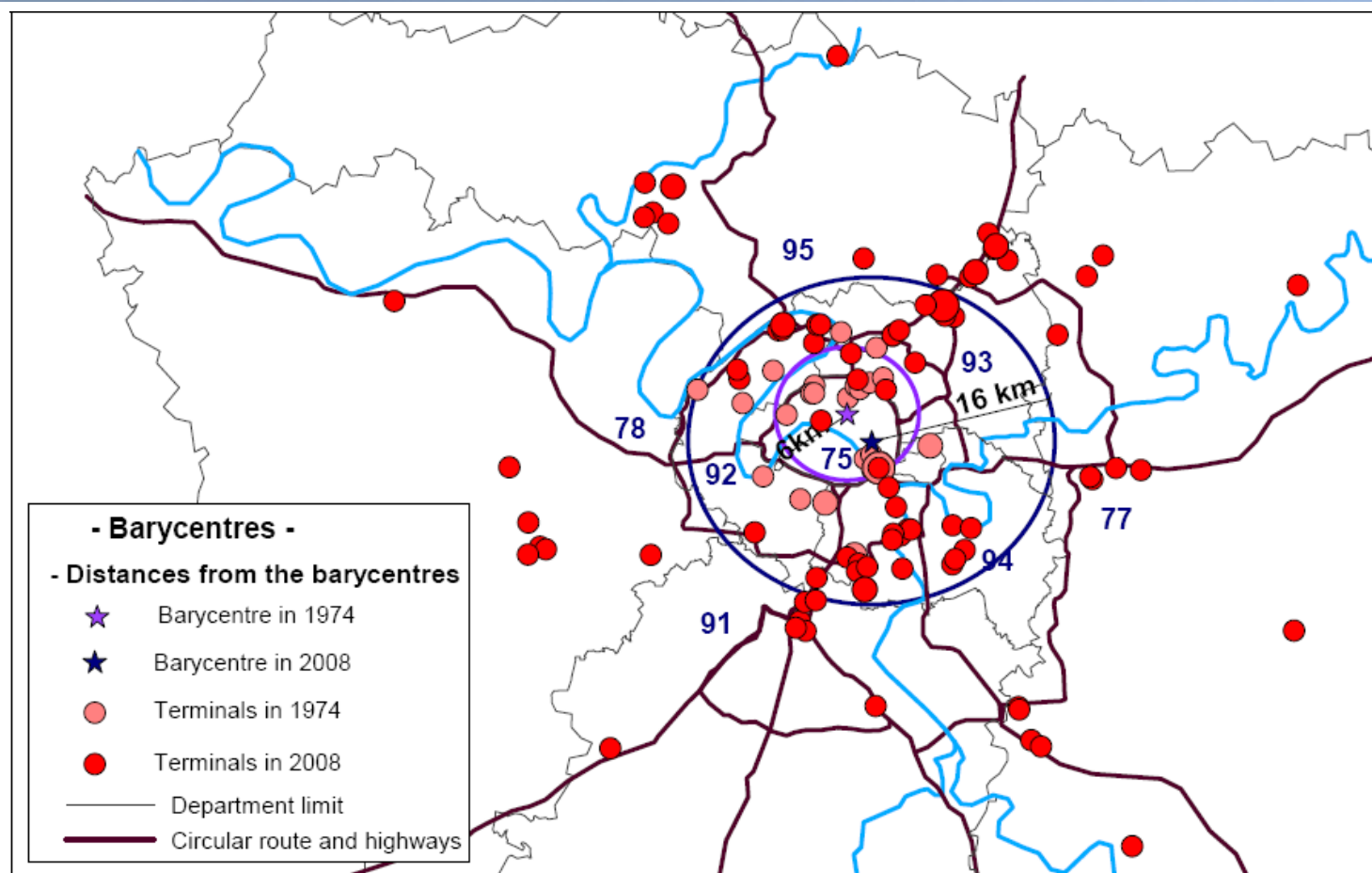
- A centrophraphic analysis: movement of the barycentre of 1,78 km to the East and 2,19 km to the South.*

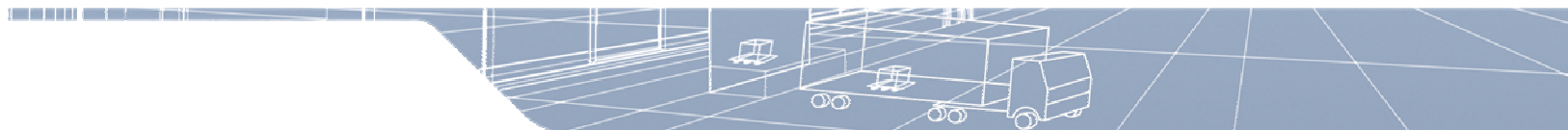
Distance from the barycentre	1974	2008
	6 km	16 km
Distance from the centre of Paris	1974	2008
	5 km	16 km

➔ *Confirmation of 'logistic sprawl' of parcel transport terminals.*



Logistic sprawl : THE CHANGE OF THE LOCATION OF CROSS-DOCK TERMINALS IN THE PARIS REGION (1974 – 2008)



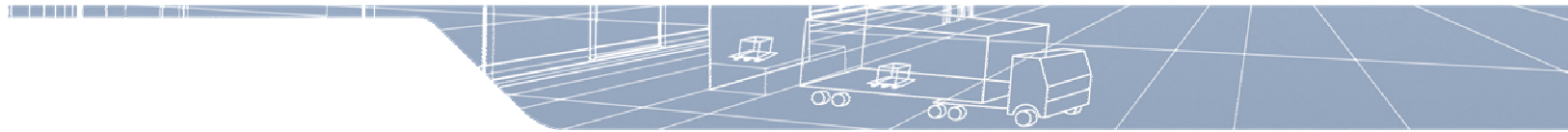


CO2 impact assessment of logistic sprawl

- Focused on the direct consequence of logistics sprawl, i.e an additional 10 km necessary to reach the Parisian destinations
 - ➔ 15,000 tonnes of CO2 generated per year

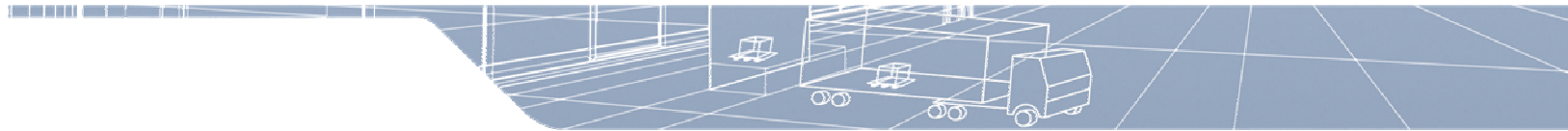
Comparison with the CO2 emission of:

- freight transport in Paris: 1.7 million tonnes of CO2 emitted each year
- city logistics experiments in Paris: about 500 tonnes avoided each year



Logistic planning and public policy issues

- **Land use planning in France: decisions on land use depend on municipalities**
 - ➔ **very fragmented**
 - **Local attitudes towards logistics terminals**
 - favourable: providing industrial jobs
 - against: generating noise, truck traffic and safety problems
- 👉 **Final choice for the location of logistics terminals: an agreement between a developer and a local community**

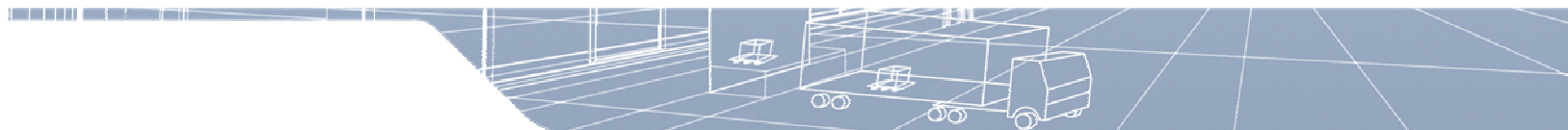


Logistic planning and public policy issues

- **Master Plan for the Ile-de-France region (SDRIF):**

- The new SDRIF (2008): no mention of road terminals and warehouses
- Incoherence between SDRIF recommendations and municipalities' specific land use planning and building permit decisions

👉 **A solution would be the adoption of a more integrated planning approach under a regional authority**



Shall we try to have logistics terminals back in cities?

- **The policy of the City of Paris**

- The City allocates logistics spaces within parking facilities it owns
- Bid for tender: the most environmentally friendly operator is the winner and can use the space at a low rent
- Chronopost Concorde, La Petite Reine, Colizen are examples of operators using the spaces
- They can be large companies (Chronopost) or start-ups (La Petite Reine, Colizen)
- Today 5 logistics spaces are in operation, 2 are planned in the immediate future

- **The example of Japanese cities**

- ☞ Multiple story terminals in urban zones or logistics activities on the first floors of multi use buildings

