

# Characterising *TOD* in the French context

## An investigation on two cases in the Lille Metropolitan Area

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International Scientific Conference on Mobility and Transport

Sustainable Mobility in Metropolitan Regions



# Urban planning and Transportation coordination => TOD

## Case selection

33 Known Possibilities  
26 'Best Practices'

Many French academics (before the BUFTOD 2102 conference!) and most French planners do not know about TOD

Known TOD implementations in the world : 33 cases and 26 recognised as best practices (*W. Tan* BUFTOD 2012) in North America, Europe, Asia but...none in France

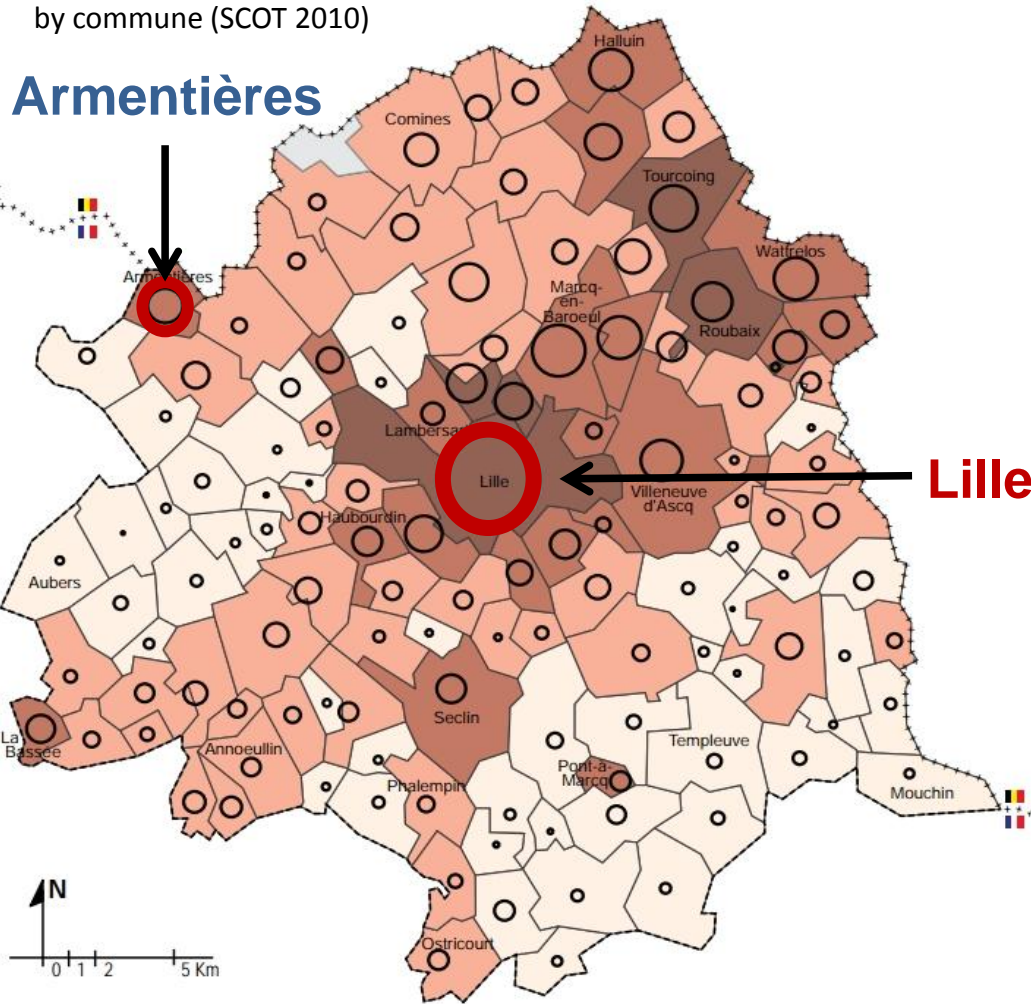


*Does TOD exist in France, under a different acronym ? Can we identify some experiences similar to TOD in France ? More precisely, within Lille Metropole Area?*

# Urban form of Lille Metropolitan Area (LMA)

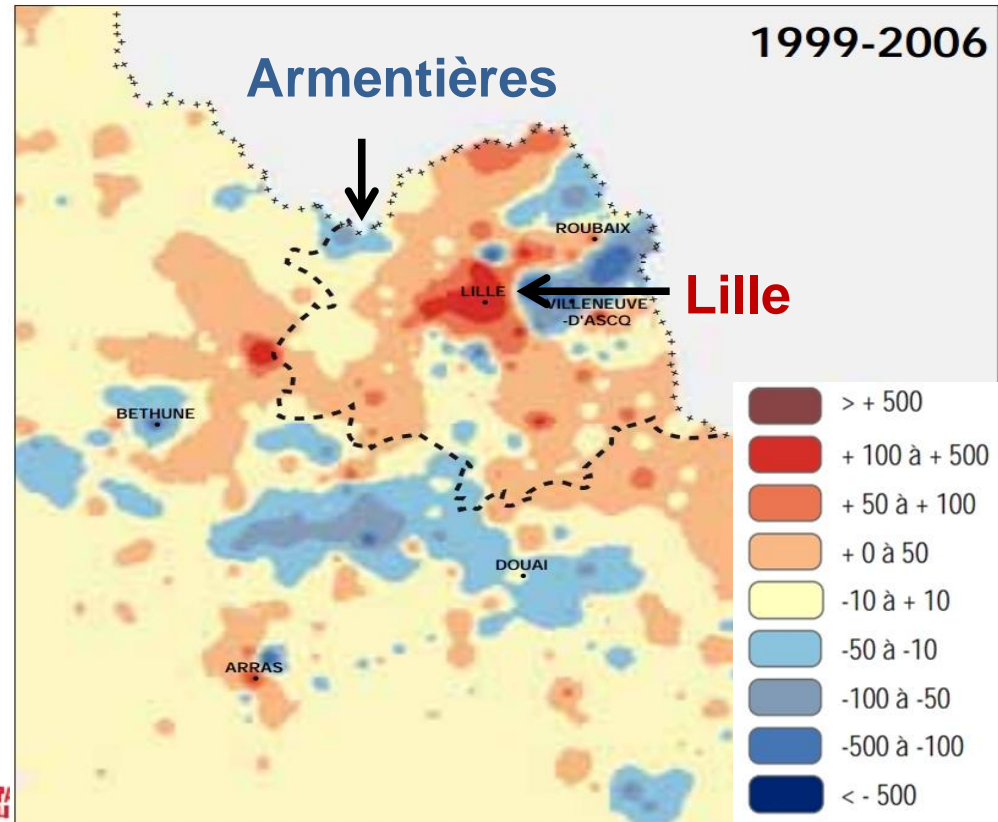
Density and construction of dwellings by commune (SCOT 2010)

## Armentières



- ❖ Lille Metropolitan Area (1.2 Million inh.)
- 87 Municipalities
- Municipality of Armentières as secondary urban pole (25 000 inh., belongs to LMA)
- Demographical difficulty in secondary poles while most dynamic absorbed by the municipality of Lille

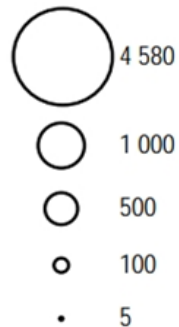
Trend in density of inhabitants (SCOT 2010)



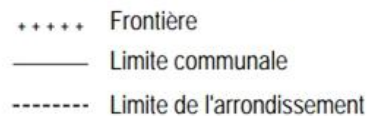
Densité en nombre de logements par hectare selon la commune

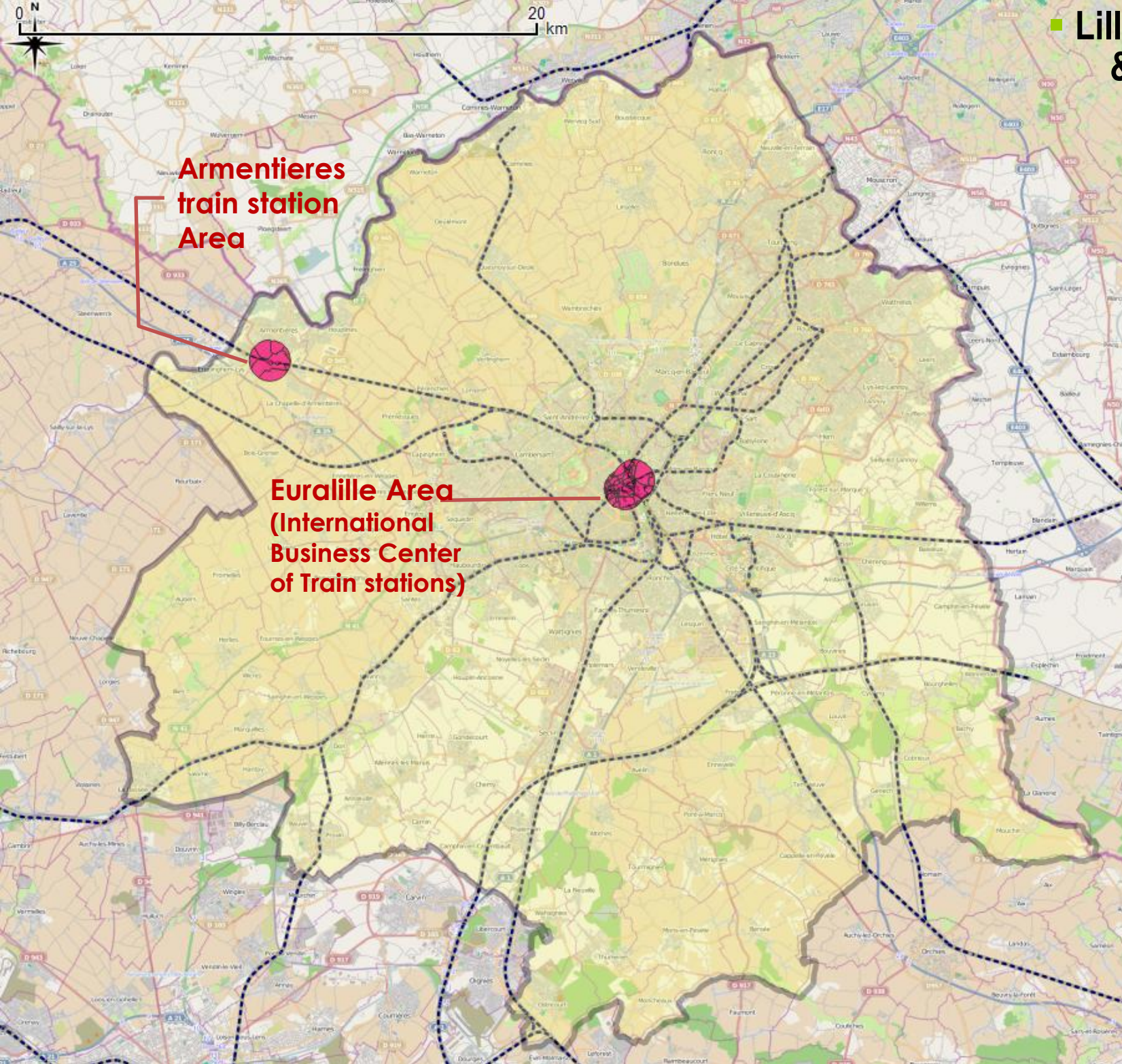


Nombre de logements construits



Limites administratives





## ■ Lille Metropolitan Area & two studied zones

### ❖ Euralille Area :

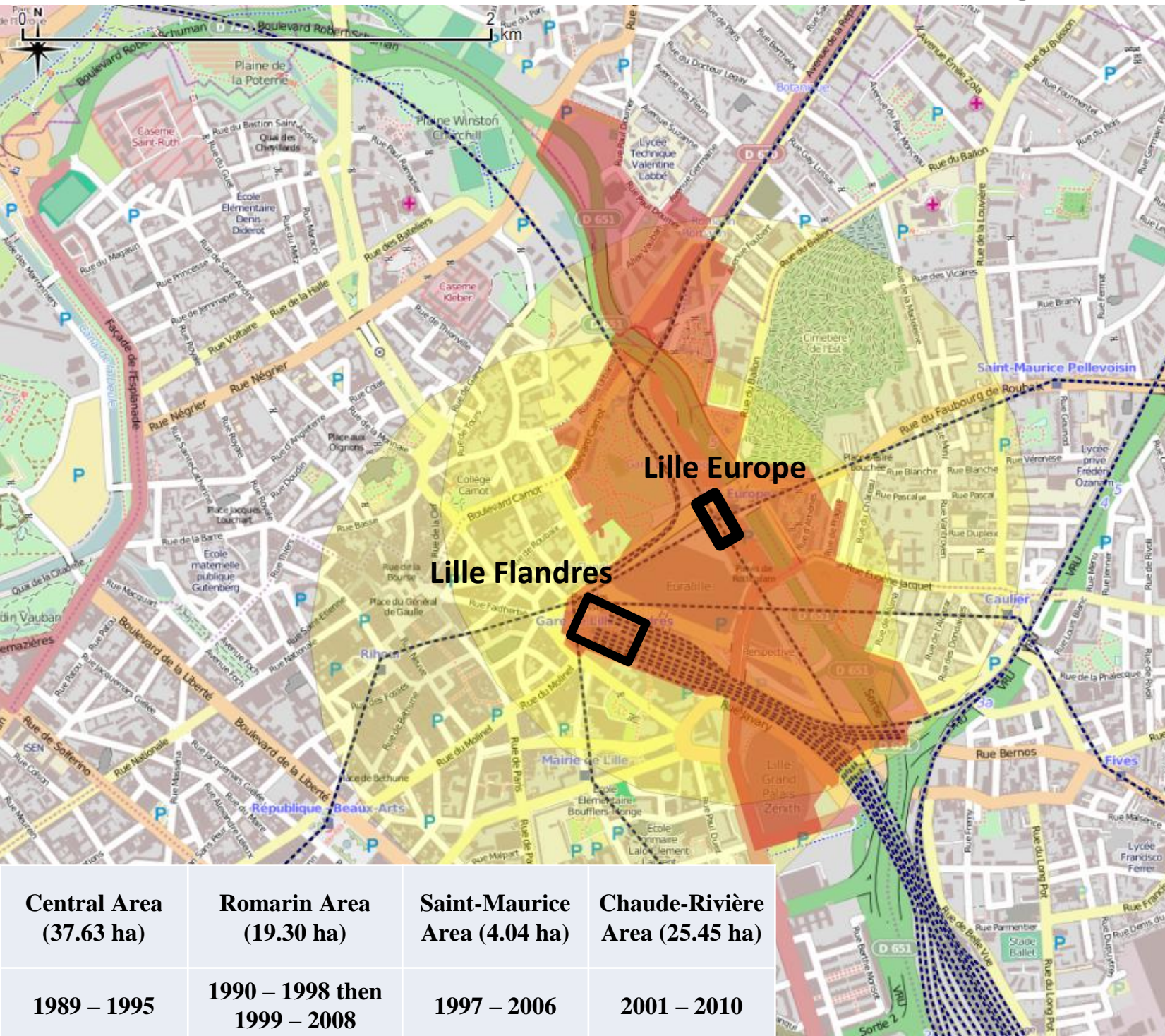
- an international business center;
- A system of train stations incorporated to the northern European railway network

### ❖ Armentieres train station Area:

- A suburban area;
- A regional train station on the link between Lille and Dunkerque

**Catchment zones:**  
Circles with a radius of 800 m around each train station

# Euralille Area & 4 subareas of the global project



❖ System of stations: the 3<sup>rd</sup> French railway stations' system after those of Paris and Lyon

- Lille-Flandres (17M/year HS and classical)
- Lille-Europe (7M/year HS)

❖ Vast urban project

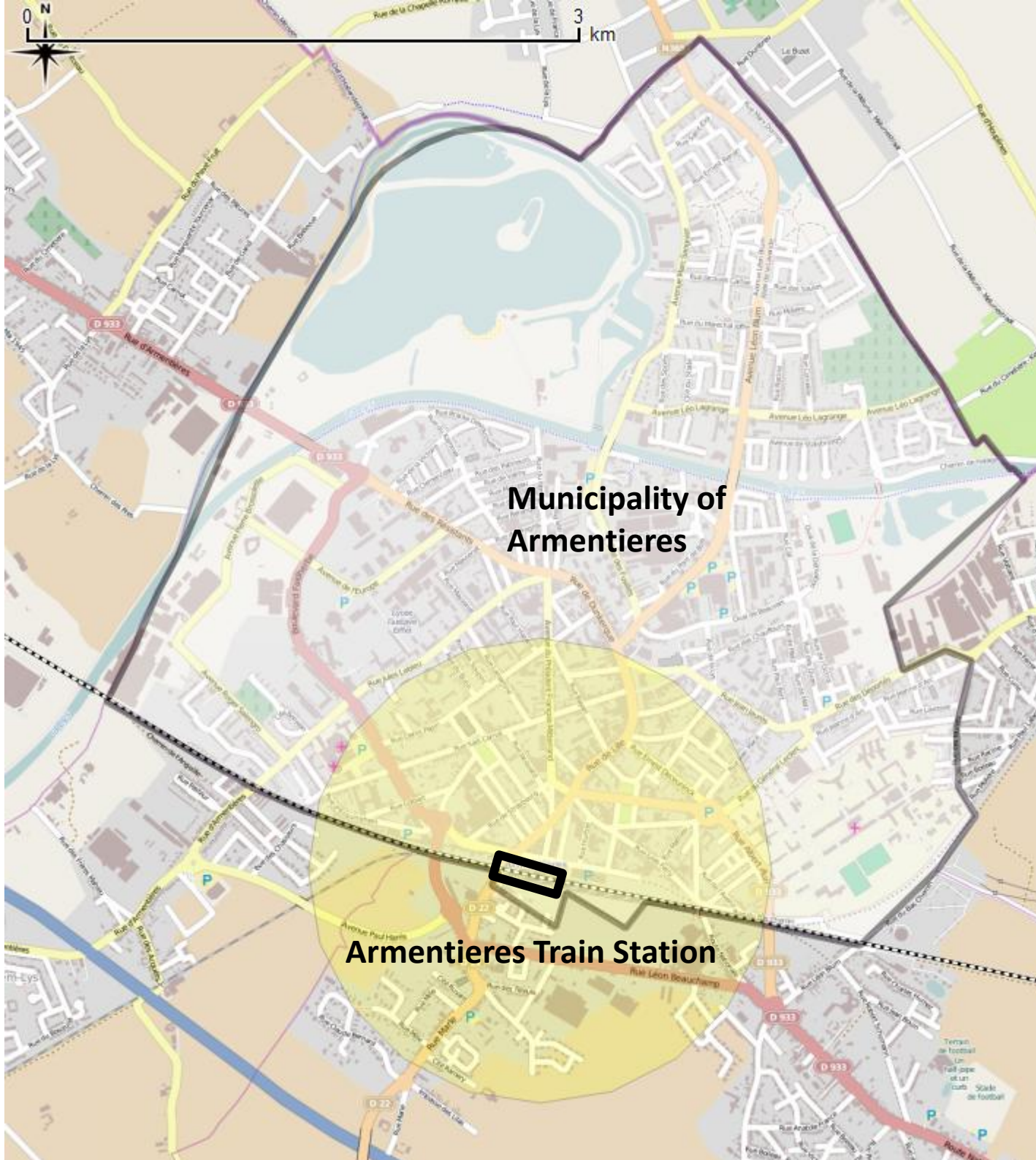
- Commercial center (1994)
- Lille Grand Palais Congress center (1994)

❖ Transport and infrastructure

- Lille Europe (1994)
- Deviation of East-Ringroad (1999)

**Train Station**  
**Catchment zones**  
**Urban project**

Central Area (37.63 ha)	Romarin Area (19.30 ha)	Saint-Maurice Area (4.04 ha)	Chaude-Rivière Area (25.45 ha)
1989 – 1995	1990 – 1998 then 1999 – 2008	1997 – 2006	2001 – 2010



## ■ Armentieres train station Area

### ❖ Regional train station

- the 2<sup>nd</sup> most important train station of the metropolis
- One of the 10 most important stations of Nord-Pas de calais

### ❖ Diverse urban project :

- New cinema
- Cultural complex
- Retail and restoration business
- Housings and services
- Multimedia library
- Conversion of abandoned buildings
- Extension of public amenities (Allowance and insurance offices)

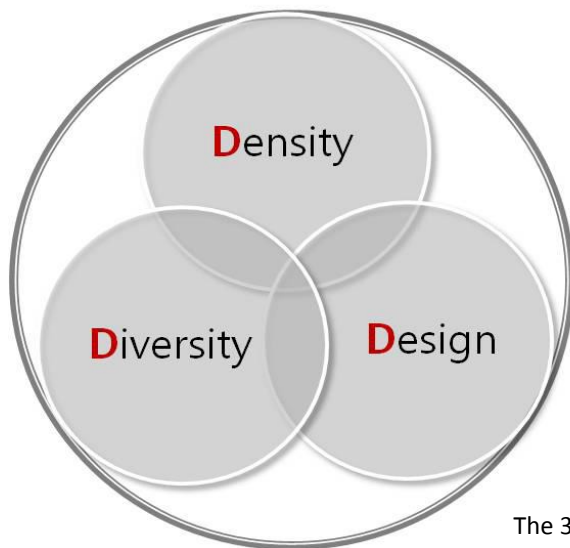
### ❖ Transport and infrastructure

- Reinforcement of bus system
- New intermodal hub
- Underground crossing

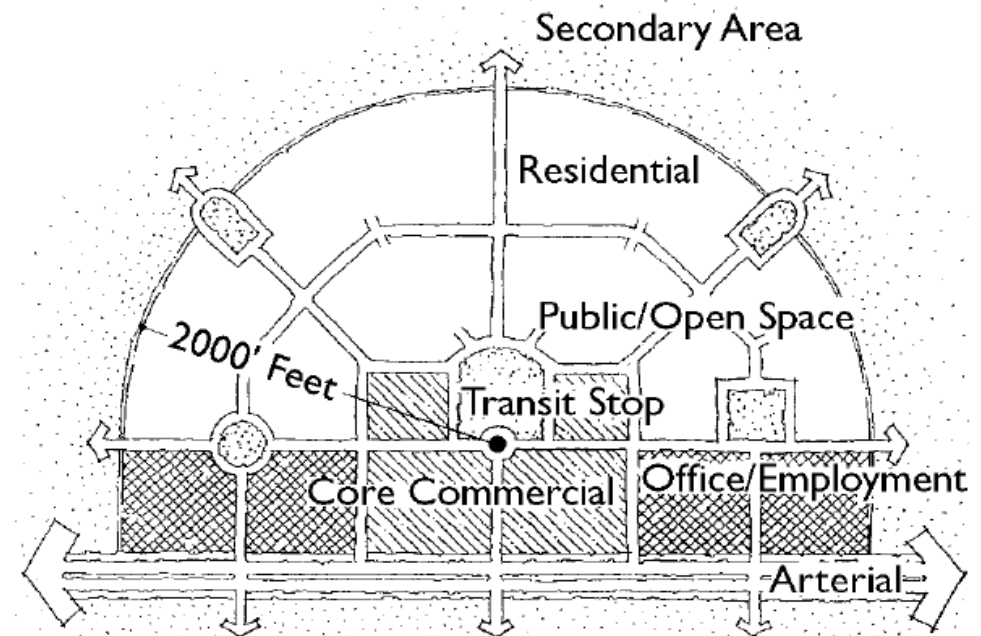
# ■ Criteria

❖ Based on those identified in the franco-german research-action project « BahnVille 2 » to define an urban development addressing sustainable mobility

1. Regional railway service
2. *A transit-oriented urban development*
3. Intermodality: Connection with urban transport system and neighborhood
4. Active modes: Environment of slow paths near transit station
5. Integrated strategic planning processes
6. Commitment for a common future



The 3D principle of TOD, Cervero. R

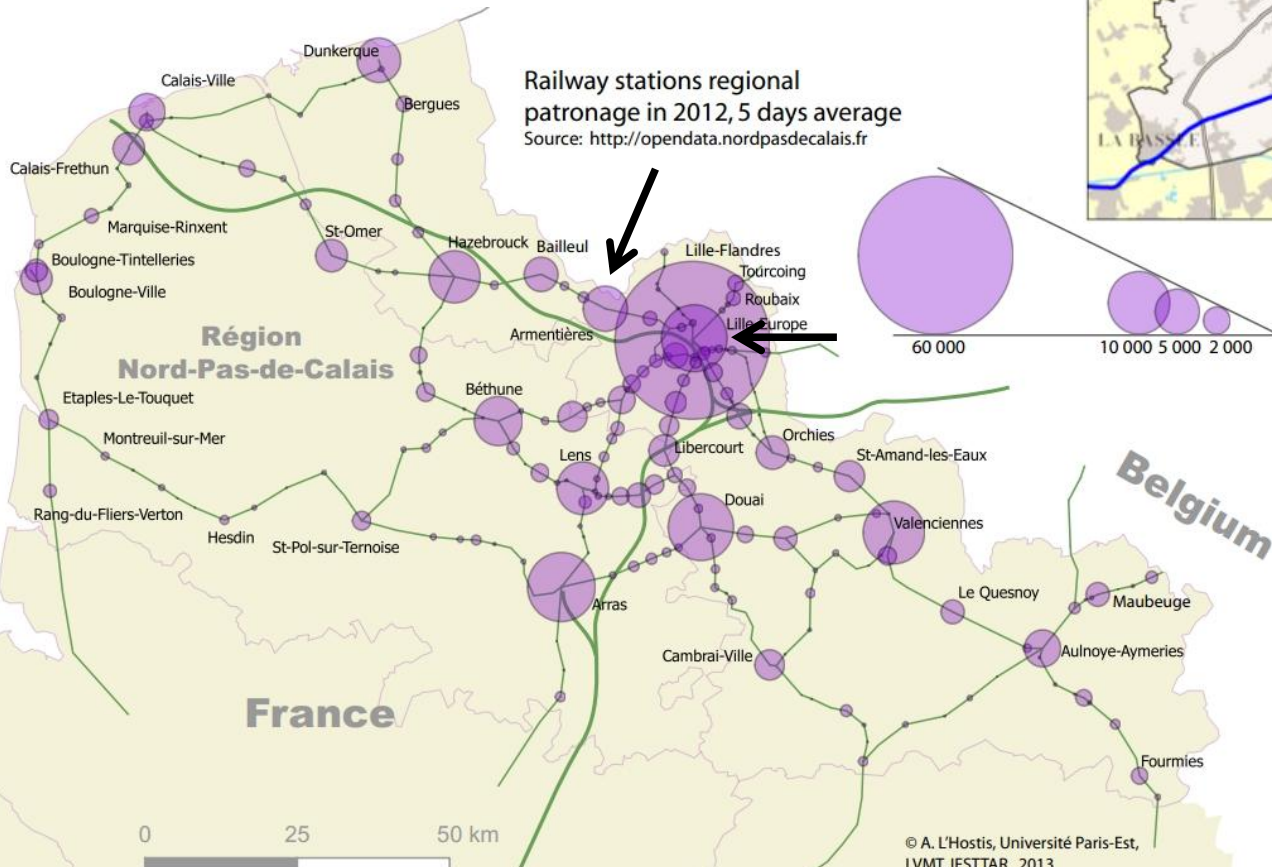
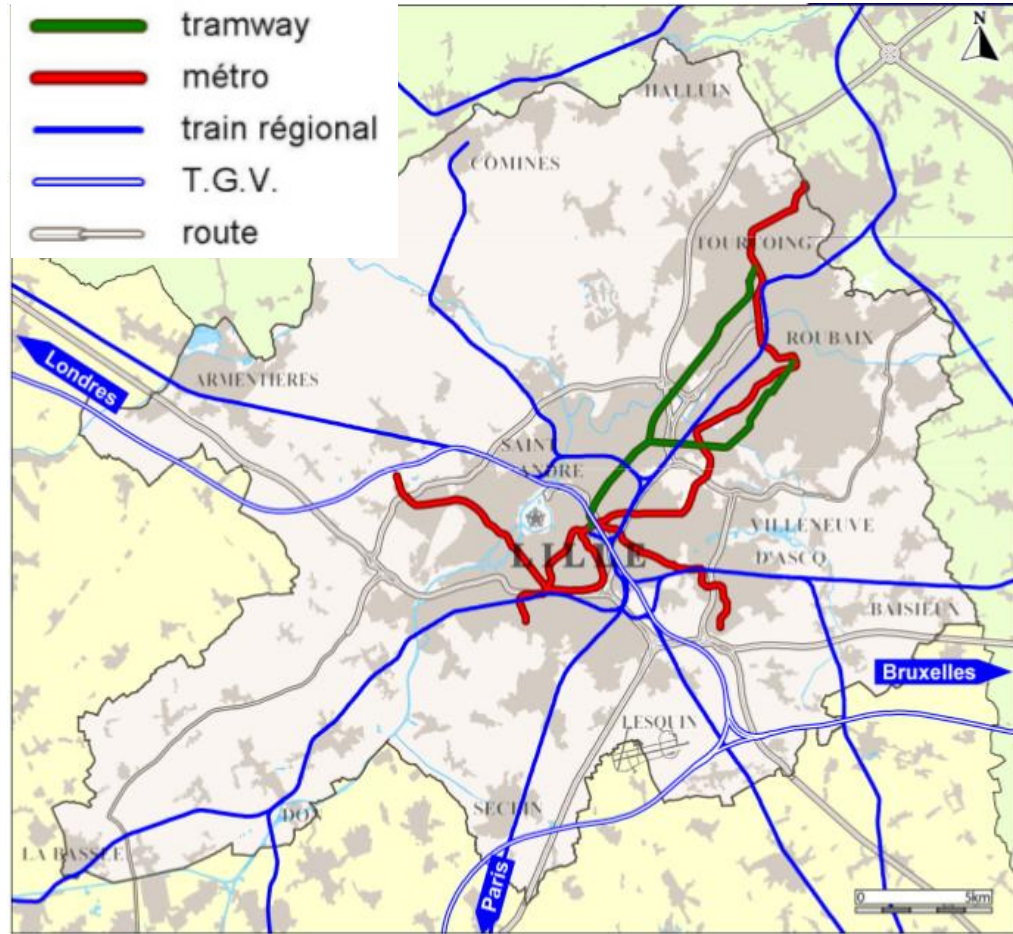
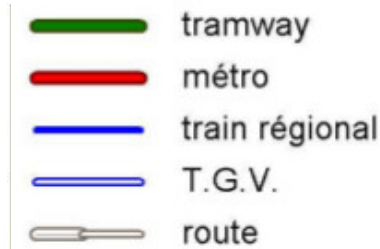


Calthorpe.P, *The next american metropolis*, 1993

# 1. Regional railway service in and around Lille Metropolitan Area (LMA)

## ❖ A hierarchical public transport network :

- Continental/National, regional & urban
- In 2012, 5 000 pass/day by Armentières (3300 pass/day in 2005) & 50 000 pass/day by Lille Flandres (at regional level)

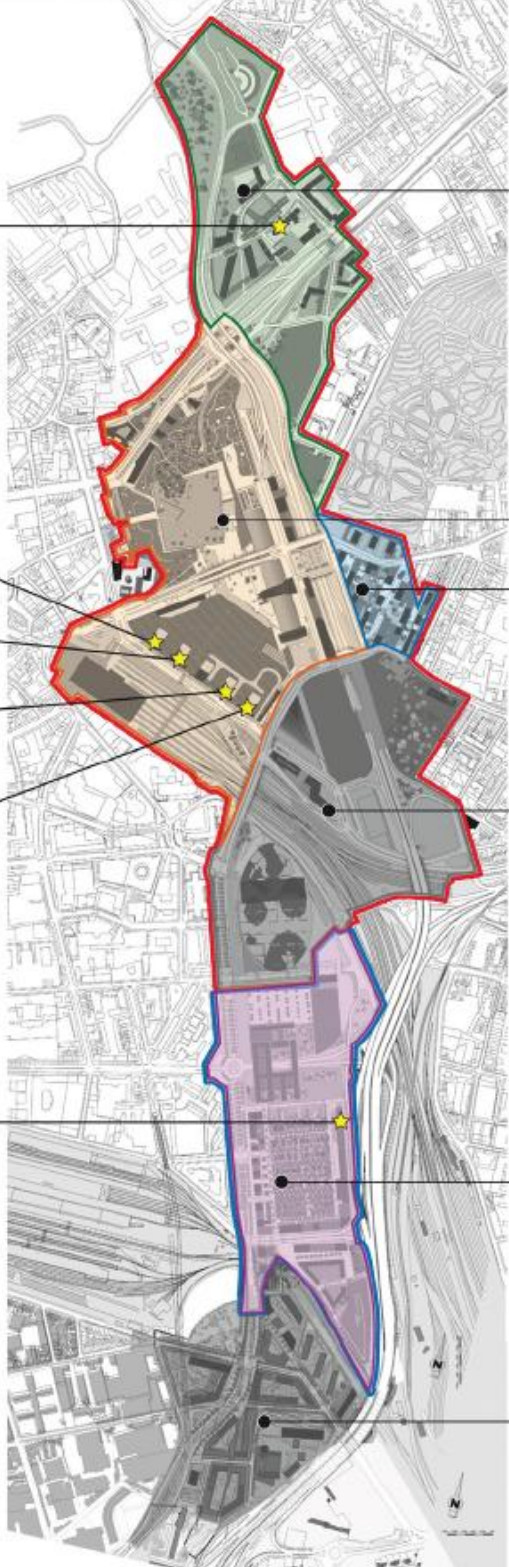




## 2. A transit-oriented urban development

### ❖ Density and Diversity (of urban functions)

- CAP'AFFAIRE Romarin (134 logements-résidence affaire)
- LES CITADINES (101 logements-résidence affaire)
- LES STUDIANTES (198 logements-résidence étudiante)
- METROPOLE EUROPE (180 logements-résidence affaire/étudiante)
- CAMPUSÉA (190 logements-résidence étudiante)
- CAP'AFFAIRE Euralille 2 (133 logements-résidence affaire)



SECTEUR DU ROMARIN (293 logements classiques- 42% enquêtés)

SECTEUR CENTRAL (351 logements classiques- 44% enquêtés)

SECTEUR SAINT-MAURICE (416 logements classiques- 50% enquêtés)

SECTEUR CHAUDE RIVIÈRE

SECTEUR BOIS HABITÉ (261 logements- 52% enquêtés)

SECTEUR PORTE DE VALENCIENNES

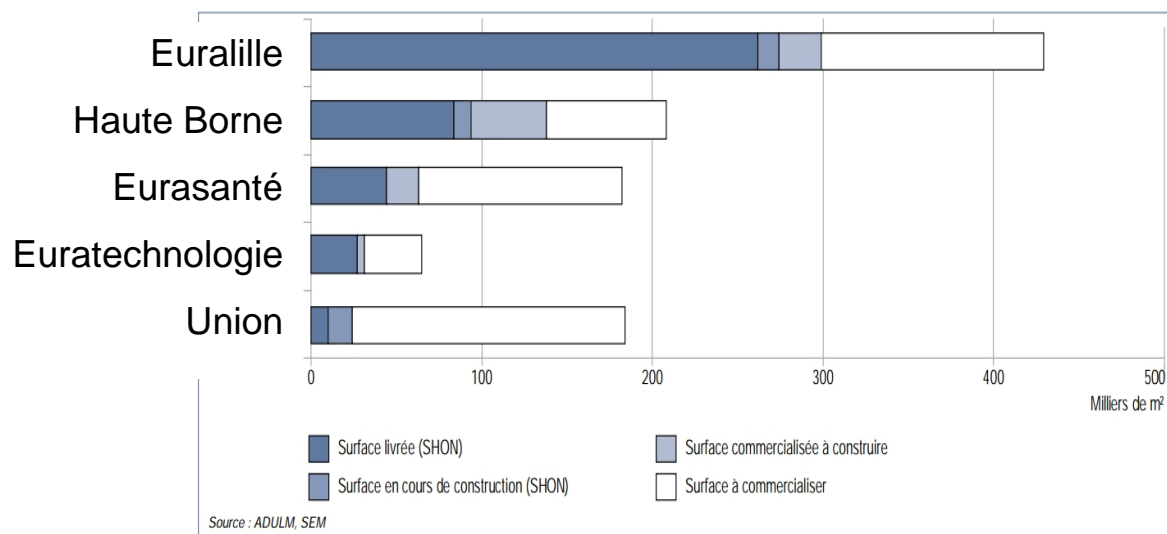
- Opération Euralille 1
- Opération Euralille 2
- Secteur dépourvu de logement à ce jour
- Résidence service

	Household	Residential population	Total jobs	Commercial jobs
<b>Euralille</b>	<b>12 700</b>	<b>21 600</b>	<b>45 500</b>	<b>30 500</b>
<b>Armentières</b>	<b>3 600</b>	<b>7 850</b>	<b>2 200</b>	<b>900</b>

Number of households and jobs in the catchment zone of Euralille and of the train station area of Armentières

Land Use (2009)	Central Area (19.30 ha)	Romarin Area (4.04 ha)	Saint-Maurice Area (37.63 ha)	Chaude-Rivière Area (25.45 ha)
Mixte	4.97%			0.03%
Housing	2.39%	35.82%	95.79%	0.74%
Industry	9.34%			
Commerce/ Tertiary	19.56%			
Public service	18.55%	20.35%		19.48%
Infrastructure	24.90%	40.66%	2.94%	39.57%
Construction		3.17%		22.01%
Nature	20.29%		1.27%	18.17%

Land Use in 4 subareas of in the Euralille 1 project



## ❖ Design

### ➔ Euralille Area: A major change of the city's image

- 25% of new offices built in Euralille in the last 10 years and a potential for dev. (SCOT 2010)
- Occupation rate of more than 60% by private real estate actors
- An iconic symbol among HST stations' area development, also among cities' immense projects.

### ➔ Armentieres train station Area : Regeneration of economic activities

- New pedestrian axis to centre town (800 m)
- Urban renewal and a variety of new urban functions
- Regeneration of a lively area attracting young inhabitants

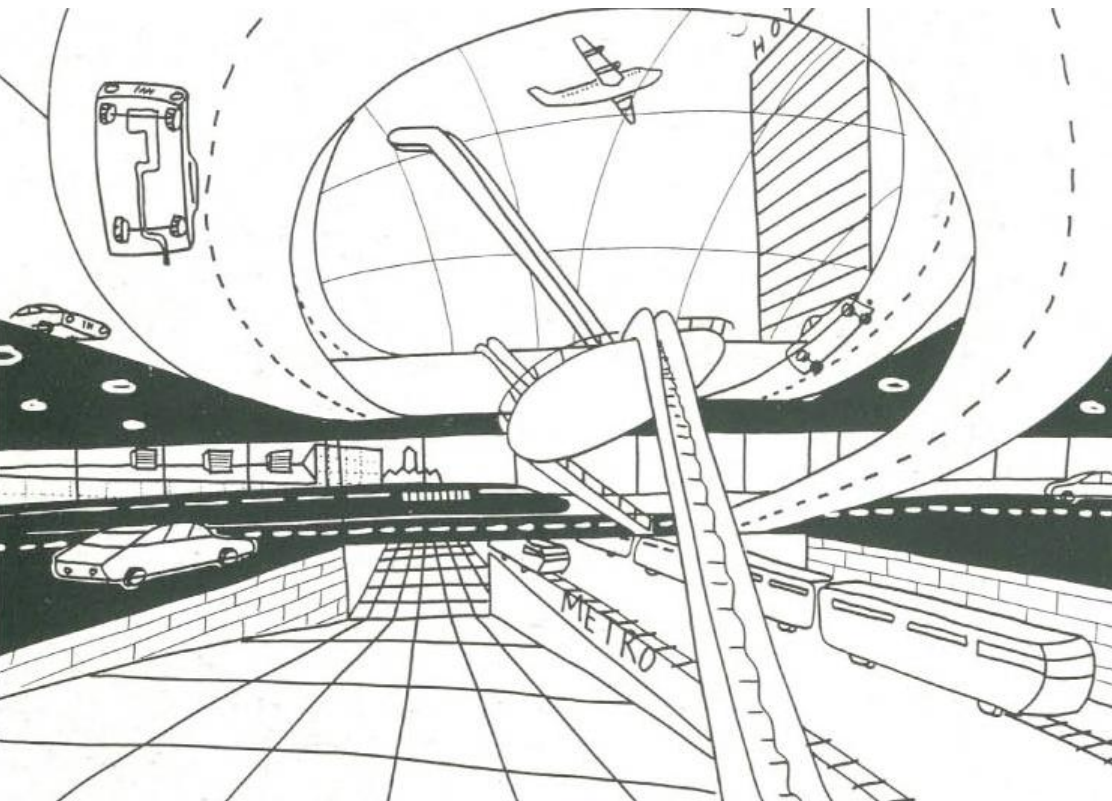
# 3&4. Intermodality and Active modes Lille-railway-stations (1993)

- High speed trains (Flandres and Europe)
- Regional rail classical (Fl.) and high speed (Eur.) (SNCF/Région Nord-Pas-de-Calais)
- Metro (2 lines), tramway, urban buses (LMCU)
- Bike stations (LMCU)

- Parking lot > 4 000 loc. (private)
- Open pedestrian public space between the two stations, pedestrian link to center (500m to Grand Place)



R. Koolhaas sketch in the 1980s : space of flows



## 3&4. Intermodality and Active modes

## Armentières (2009)

Regional rail (Region Nord-Pas-de-Calais)

Urban buses (LMCU)

Suburban buses (Department of North)

Bike station (LMA)

Parking lot 450 loc. (LMA)

2003: 25 trains/day/direction - 2 650 pass

2010: 41 trains/day/direction - 4 600 pass

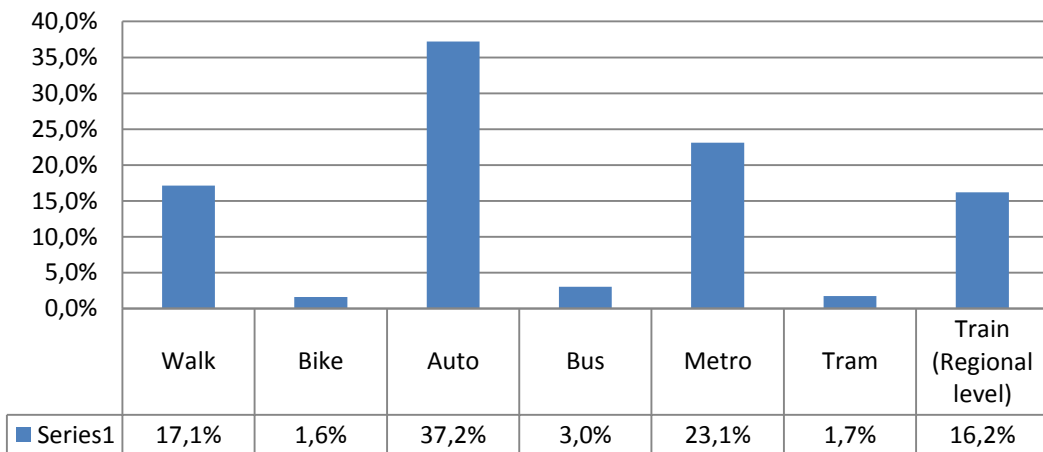
+ 75% as compared to + 36 % at regional level



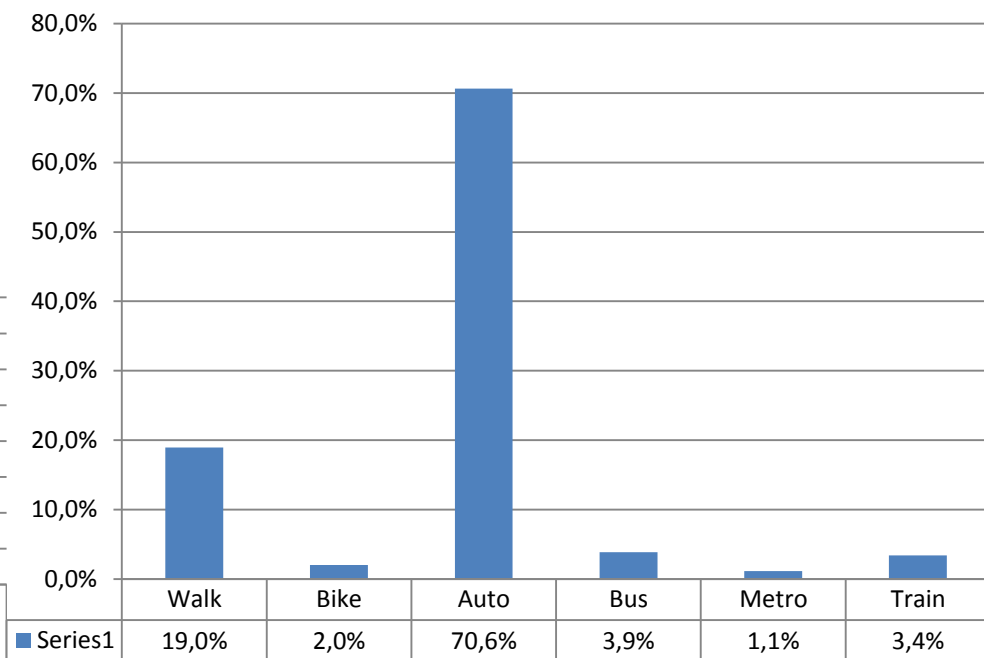
Modal split in the Euralille Area and Armentieres Area in comparison with the rest of Lille Metropolitan area

Home-work/study	Euralille 2007	Euralille 2009	Armentieres Area 2009	LMA 2006
Auto	49%	40%	71%	75%
TC	31%	39%	9%	12%
Active modes	16%	20%	21%	9%

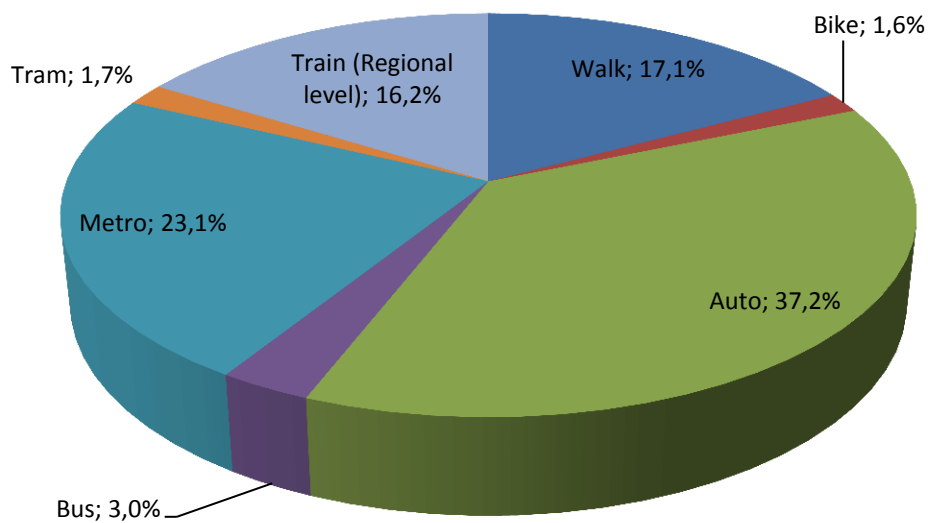
Departure from Euralille Area



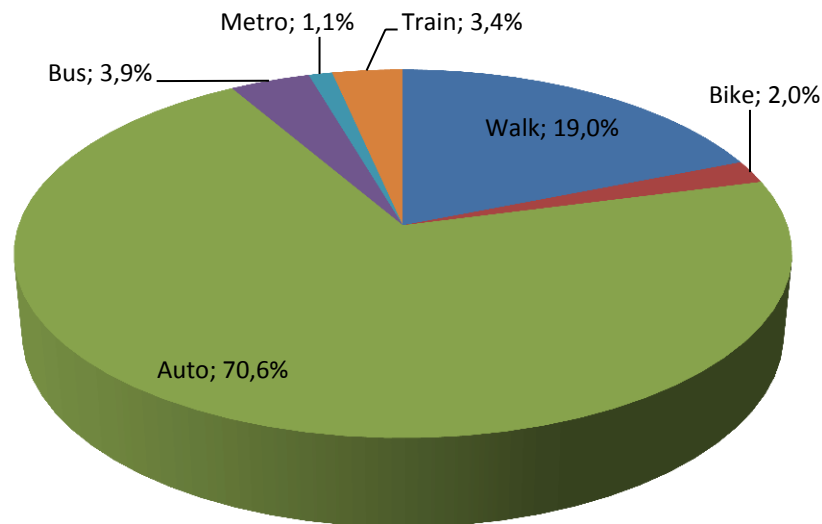
Departure from Armentières Train Station's Area



Modal share of Euralille Neighborhood

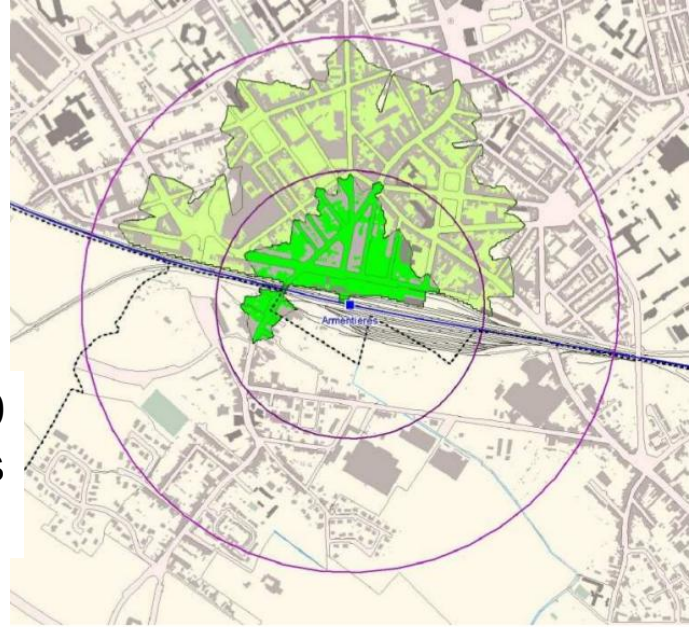


Modal Share of Armentières Area

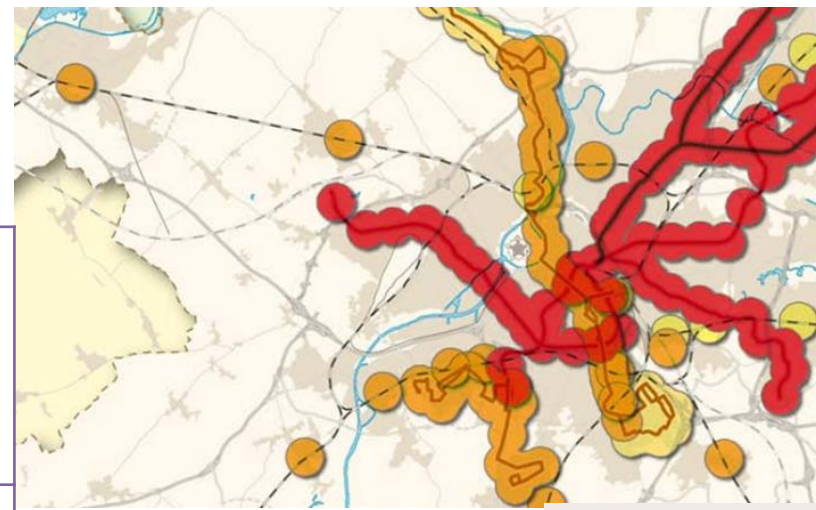


# 5. Integrated planning processes

- Corridor Contract (Contrat d'axe)
- Prominent tool the « DIVAT » : Disc for Valorizing Transport Axis (Disc of 500 m around each transit stop)
- Articulating transport and urbanism introduced in the Local Transport Plan in 2010 (PDU 2010-2020)
- The strategic coherence scheme (SCOT) will introduce minimum density targets for projects inside DIVAT



Armentières 10 min walk radius



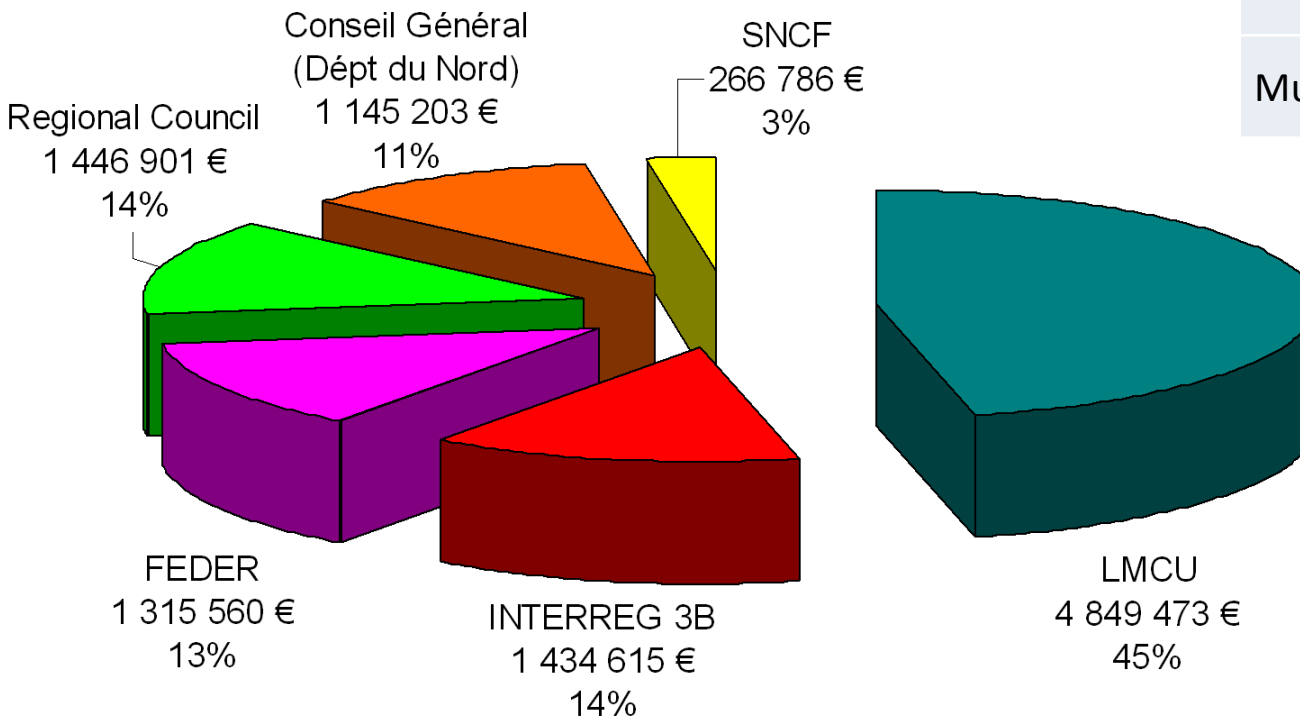
DIVAT Discs  
Valorizing Axes of Transport

- DIVAT de niveau 1 (Red circle)
- DIVAT de niveau 2 (Orange circle)
- DIVAT de niveau 3 (Yellow circle)

DIVAT level	Service quality and public transport level of supply	Dwellings per hectare	Offices surface occupation coefficient	Other activities surface occupation coefficient
1	Métro, tramway, tram-train urbain	> 70	> 1,5	> 1
2	Train régional, tram-train suburbain, BHNS urbain	> 35	> 1	> 0,5
3	Train régional, BHNS suburbain	> 35	> 1	> 0,5

## 6. Commitment for a common future

- Euralille urban project: a Mixed Economy Firm (SEM) that allows to sell public land to private developers with strong control over programs
- Armentières exchange pole funding: where metropolis and region priorities meet



Shareholder	Share part
Authority of Lille Metropolitan Area (Lille Métropole)	30,52%
Municipality of Lille	30,38%
The region Nord Pas-de-Calais	10,28%
The Nord Department	10,28%
Municipality of La Madeleine	4,63%
Municipality of Roubaix	4,63%
Municipality of Tourcoing	4,63%

**Stakeholders of SPL - Euralille:**  
**\*En pourcentage du capital détenu**  
 (spl-euralille.fr)

**Share of partners financial contribution**  
**in the Armentières project**

# Conclusion and perspectives

- Euralille can be considered as a major TOD operation based on a new HST station built in the extension of the urban core of the Lille agglomeration
- Armentieres can be considered as a regional TOD « to be confirmed » with strong transit supply (40 trains per day per direction) and a bet on an urban renewal articulating the exchange pole with the center town
- The transport/urbanism policies in Lille are designed to support more and more the TOD-like approach with DIVAT and Axis Contract
- The housing policy based on DIVAT is an encouraging sign
- A wide gap between theory and practice (Horizontal and vertical barriers)

**→ Tangible outcomes? (with LUTI...)**



**Thank you.  
Welcome to Lille Metropolitan Area.**



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D. Bourbotte 2008

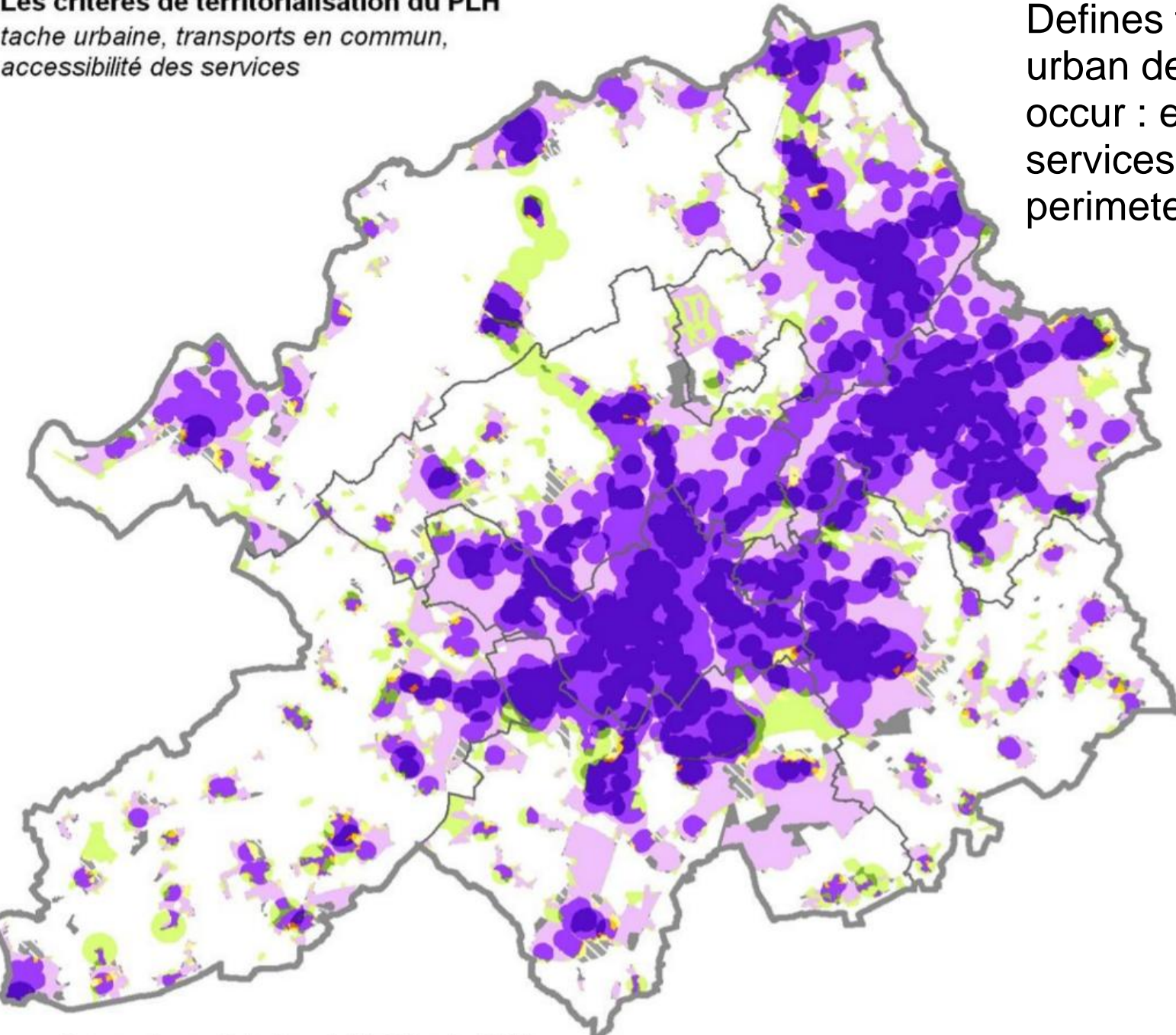


# 5. Integrated planning processes

The Local Housing Plan, voted in 2012

**Les critères de territorialisation du PLH**  
*tache urbaine, transports en commun, accessibilité des services*

Defines the places where urban development can occur : existing (1), access to services (2) and transit perimeters DIVAT (3)



Sources : Agence d'urbanisme de Lille Métropole, LMCU

But...

No clear indication of the location of the urban development in the previous period (2000-2008)

83 % of new housing in existing urban fabric but this indicator is judged too vague (SCOT 2010)

And a very low proportion of new dwellings are in an urban renewal fabric

And suburbanisation still occurs beyond the borders of LMA

