Characterising *TOD* in the French context

An investigation on two cases in the Lille Metropolitan Area

Liu, L’Hostis
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Urban planning and Transportation coordination => TOD

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)

- **Lille Metropolitan Area (1.2 Million inh.)**
  - 87 Municipalities
  - Municipality of Armentieres 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)
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 3rd 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)

<table>
<thead>
<tr>
<th>Area</th>
<th>Years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central Area</td>
<td>1989 – 1995</td>
</tr>
<tr>
<td>Saint-Maurice Area</td>
<td>1997 – 2006</td>
</tr>
<tr>
<td>Chaude-Rivière Area</td>
<td>2001 – 2010</td>
</tr>
</tbody>
</table>

Train Station
Catchment zones
Urban project
Armentieres train station Area

- Regional train station
  - the 2\textsuperscript{nd} 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 Armentieres (3,300 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)

<table>
<thead>
<tr>
<th></th>
<th>Household</th>
<th>Residential population</th>
<th>Total jobs</th>
<th>Commercial jobs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Euralille</td>
<td>12 700</td>
<td>21 600</td>
<td>45 500</td>
<td>30 500</td>
</tr>
<tr>
<td>Armentières</td>
<td>3 600</td>
<td>7 850</td>
<td>2 200</td>
<td>900</td>
</tr>
</tbody>
</table>

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

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

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

Regional rail (Region Nord-Pas-de-Calais)
Urban buses (LMCU)
Suburban buses (Department of North)
Bike station (LMA)

Armentières (2009)

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 Armentières Area in comparison with the rest of Lille Metropolitain area

<table>
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<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>Auto</td>
<td>49%</td>
<td>40%</td>
<td>71%</td>
<td>75%</td>
</tr>
<tr>
<td>TC</td>
<td>31%</td>
<td>39%</td>
<td>9%</td>
<td>12%</td>
</tr>
<tr>
<td>Active modes</td>
<td>16%</td>
<td>20%</td>
<td>21%</td>
<td>9%</td>
</tr>
</tbody>
</table>

**Departure from Euralille Area**

<table>
<thead>
<tr>
<th>Mode</th>
<th>Series1</th>
<th>Departure from Armentières Train Station's Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Walk</td>
<td>17,1%</td>
<td>Walk 19,0%</td>
</tr>
<tr>
<td>Bike</td>
<td>1,6%</td>
<td>Bike 2,0%</td>
</tr>
<tr>
<td>Auto</td>
<td>37,2%</td>
<td>Auto 70,6%</td>
</tr>
<tr>
<td>Bus</td>
<td>3,0%</td>
<td>Bus 3,9%</td>
</tr>
<tr>
<td>Metro</td>
<td>23,1%</td>
<td>Metro 1,1%</td>
</tr>
<tr>
<td>Tram</td>
<td>1,7%</td>
<td>Tram 3,4%</td>
</tr>
<tr>
<td>Train (Regional level)</td>
<td>16,2%</td>
<td>Train 3,4%</td>
</tr>
</tbody>
</table>

**Modal share of Euralille Neighborhood**

- Auto: 37,2%
- Bus: 3,0%
- Metro: 23,1%
- Tram: 1,7%
- Train (Regional level): 16,2%
- Walk: 17,1%
- Bike: 1,6%

**Modal Share of Armentières Area**

- Auto: 70,6%
- Bus: 3,9%
- Metro: 1,1%
- Tram: 3,4%
- Walk: 19,0%
- Bike: 2,0%
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

<table>
<thead>
<tr>
<th>DIVAT level</th>
<th>Service quality and public transport level of supply</th>
<th>Dwellings per hectare</th>
<th>Offices surface occupation coefficient</th>
<th>Other activities surface occupation coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Métro, tramway, tram-train urbain</td>
<td>&gt; 70</td>
<td>&gt; 1,5</td>
<td>&gt; 1</td>
</tr>
<tr>
<td>2</td>
<td>Train régional, tram-train suburbain, BHNS urbain</td>
<td>&gt; 35</td>
<td>&gt; 1</td>
<td>&gt; 0,5</td>
</tr>
<tr>
<td>3</td>
<td>Train régional, BHNS suburbain</td>
<td>&gt; 35</td>
<td>&gt; 1</td>
<td>&gt; 0,5</td>
</tr>
</tbody>
</table>
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

<table>
<thead>
<tr>
<th>Shareholder</th>
<th>Share part</th>
</tr>
</thead>
<tbody>
<tr>
<td>Authority of Lille Metropolitan Area (Lille Métropole)</td>
<td>30,52%</td>
</tr>
<tr>
<td>Municipality of Lille</td>
<td>30,38%</td>
</tr>
<tr>
<td>The region Nord Pas-de-Calais</td>
<td>10,28%</td>
</tr>
<tr>
<td>The Nord Department</td>
<td>10,28%</td>
</tr>
<tr>
<td>Municipality of La Madeleine</td>
<td>4,63%</td>
</tr>
<tr>
<td>Municipality of Roubaix</td>
<td>4,63%</td>
</tr>
<tr>
<td>Municipality of Tourcoing</td>
<td>4,63%</td>
</tr>
</tbody>
</table>

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

Share of partners financial contribution in the Armentières project

- Regional Council (Dépt du Nord) 1 446 901 € 14%
- Conseil Général (Dépt du Nord) 1 145 203 € 11%
- SNCF 266 786 € 3%
- FEDER 1 315 560 € 13%
- INTERREG 3B 1 434 615 € 14%
- LMCU 4 849 473 € 45%
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.

Liu.liu@ifsttar.fr
Alain.lhostis@ifsttar.fr

D. Bourbotte 2008
5. Integrated planning processes

The Local Housing Plan, voted in 2012

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