

FUT Symposium 2012-10-01

Urban Freight for Livable Cities:

-How to deal with collaboration and trade-offs.

B. Multi-level and multi-modal interaction: Interaction between different levels of administration and modes of transportation

Logistics sprawl in Paris, Atlanta and Los Angeles

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"Logistics sprawl" is the spatial deconcentration of logistics facilities and distribution centers in metropolitan areas (Dablanc and Ross, 2012). It has been a dominant spatial pattern for the last decades in metropolitan areas of developed countries. Starting in the 1980s, the U.S. and many other parts of the world entered a "new distribution economy" (Hesse and Rodrigue, 2004), an economy largely dependent upon efficient and increasingly globalized networks of goods distribution and just-in-time operations. This has led to a reduction in large inventories of intermediate and final products, but also to a concomitant rise in hub distribution centers (Movahedi et al., 2009): global supply chains require more logistics facilities, and the way these facilities are spatially organized has become a key feature of an efficient goods distribution network. The rise and characteristics of today's distribution centers are directly responsible for logistics sprawl and the polarization of freight facilities in large conurbations. Logistics sprawl generates economies of scale for the logistics industry but has massive impact on urban landscapes and has an environmental cost (Hesse and Rodrigue, 2004, Dablanc & Rakotonarivo, 2010, Cidell, 2010). Logistics sprawl contributes to the unsustainable character of large metropolitan areas by generating congestion, CO2 emissions and local atmospheric pollution. The first consequence of terminals' deconcentration is the increase in distances travelled by trucks and vans to deliver commodities to urban areas where jobs and businesses remain relatively more concentrated. Dablanc and Rakotonarivo (2010) have estimated the net CO2 emissions' impacts of the relocation of cross-dock facilities serving the Paris region to an addition of 16,500 tonnes annually.

These issues stand with an additional dimension in megaregions, i.e. large "networks of metropolitan centers and their surrounding areas... spatially and functionally linked through environmental, economic and infrastructure interactions" (Ross, 2009). This concept is particularly fitted to the analysis of freight transport systems, because freight's market areas, driven by global supply chain organizations, are largely disconnected from one single city. Terminals such as regional distribution centers and cross dock terminals are spatially organized on a regional and multicity basis.

In my presentation, I will present and compare issues of freight transport and logistics sprawl in Paris, Atlanta and Los Angeles and their megaregions (Ile-de-France, Piedmont-Atlantic Southern California). The paper will draw on a research done in Paris in 2009 and 2010 (Dablanc, Rakotonarivo, 2010), in Atlanta (2011) (Dablanc, Ross, 2012) and in Los Angeles (2012). The objectives are to present and comment the following research findings:

- Maps of recent spatial patterns of the location of warehouses in the three regions.
- Indicators of logistics sprawl for the three regions.
- An analysis of the way local and regional planning practitioners address freight transport and logistics sprawl in the three regions, local government perspectives on logistics activities and the lack of a regional approach.
- Potential solutions and way forward for a more comprehensive and regional planning of freight facilities.