Newsletter METROFREIGHT
Paris ile de France
December 2016

THE METROFREIGHT PROJECT

URBAN FREIGHT IN PARIS, NEW YORK, LOS ANGELES AND SEOUL (2013-2017)

METROFREIGHT (2013-2017) is an urban freight research consortium led by USC (University of Southern California, Gen Giuliano) with the Korean Transport Institute (KOTI), the University Transportation Research Center City College of New York) and IFSTTAR.

Institutional local partners are associated with each of the universities. IFSTTAR is fortunate to have among them the key organizations of the IDF Region, the City of Paris, the DRIEA, the IAU and the APUR. They thus join the city of New York, the city of Seoul and the county of Los Angeles in the communities involved.

The project is funded by Volvo Research and Educational Foundations (VREF), a foundation funded by (but independent of) Volvo Group, which has created around ten research centers on the theme of urban transport of the future.

METROFREIGHT is built around the theme of very large metropolises and is interested in the economic, environmental and governance issues of urban freight for these territories. Six research axes are carried out in parallel and in a comparative approach:

- Data and statistics, Urban freight atlases, leader: UTRC
- Public policies and impact on the supply of freight transport in cities, leader: USC
- The last kilometers, leader: IFSTTAR
- Freight / passenger interactions, leader: USC
- Spatial dynamics, logistic planning, leader: UTRC
- Behavior of consumers and producers, leader: UTRC

NEWS AND AGENDA

URBAN FREIGHT PLATFORM, VREF CONFERENCE, GÖTEBORG, OCTOBER 2016

The Urban Freight Platform is a Swedish initiative supported by VREF on urban freight research, which organizes an international conference every two years, bringing together researchers who present their work, professionals in urban mobility and logistics And public actors. At the conference held in Gothenburg, Sweden, from 17 to 19 October 2016, the MetroFreight team presented its work:

L. Dablanc participated in a debate session on regional planning of freight and logistics, presenting the cases of Paris and Gothenburg "Is there such a thing as regional planning for logistics facilities? A look at Paris and Gothenburg. She also participated in the debate on innovations in planning for the development of logistics activities in dense areas: "Innovative planning and co-created solutions for sustainable logistics in dense urban areas (The DenCity project)". She gave a presentation on the "instant deliveries" emerging in the major European cities.

A. Heitz, P. Launay and A. Beziat presented their new database on warehouses in Ile-de-France (Regional Census of Logistic Buildings) "Heterogeneity of logistics facilities: An Issue for a Better Understanding and Planning of the Location of Logistics Facilities

NEW ARRIVALS

Zeting Liu, a doctor of economics, has just started a post-doc at the SPLOTT laboratory as part of the CityLab project. His work consists of data collection and analysis of logistical hotels in Paris and studies on trends in urban freight, in particular the impact of e-commerce on the logistics organization. The MetroFreight team welcomed Quanquan Chen, Ph.D. student at the City College of New York (USA) in November 2016 to work on the issue of parking commercial vehicles for home delivery. Quanquan presented his work to MetroFreight researchers and partners on November 16, 2016

DEPARTURES: After several months at Ifsttar, Paola Cruz returned to Los Andes University in Bogotá to complete her thesis on urban logistics in Colombian cities. Leise Kelli de Oliveira after a year at Ifsttar, returned to Belo Horizonte (Federal University Minas Gerais) to continue his teaching and research work on urban logistics in Brazil.

Presentation of Quanquan Chen at IFSTTAR, 2016

WORLD CONFERENCE ON TRANSPORT RESEARCH, SHANGHAI, JULY 2016

The MetroFreight team participated in July 2016 at the World Conference on Transport Research in Shanghai, China.

- L. Dablanc presented work on e-commerce with B. Motte, C. Belin-Meunier, L. Belton-Chevallier and E. Morganti ("Spatial dimensions of e-shopping in France").
- A. Heitz presented his work on logistical sprawl in a comparative approach between Paris and Gothenburg ("Spatial patterns of logistics facilities in Gothenburg, Sweden") with L. Dablanc and the University of Gothenburg (J. Woxenius, J Olson, I. Sanchez). It will also present a paper on the various forms of urbanization of logistics in Europe's metropolitan areas, using a Paris-Randstad comparison (with logistics sprawl in monocentric and polycentric metropolitan areas, with L. Tavasszy and L. Dablanc and will present her work on the issue of the economic, social and environmental issues of logistical planning in the Paris metropolis (The location of logistics activities in metropolitan areas) .
- A. Beziat presented his research on the use of the Transport of Goods in Town database in an analysis on the link between the urban form and the urban freight ("Using urban form and land use to characterize logistics profiles Of freight movements in the city of Paris ").
- P. Launay presented his work on the possibilities and limits of a system of mutualisation of parcels in Paris ("Potential and limitations of collective parcel delivery systems in Paris"). He was also one of three Ph.D. winners of the World Conference on Transport Research Society's Young Researchers Initiative (WCTRS-Y). They were responsible for writing and distributing the WCTRS-Y quarterly newsletters, creating the WCTRS-Y page on the WCTRS website, and animating the WCTRS-Y Facebook page.
- Our colleague from MetroFreight Alison Conway (City College of New York) was awarded the WCTR Best Paper Award for the Freight and Logistics category on cargo cycles in New York. This work is in line with the work carried out by Martin Koning at the SPLOTT / IFSTTAR laboratory on cargo-cycles in Paris, which resulted in a publication

MetroFreight held its annual plenary meeting in Seoul, Korea for the first time (after Paris in 2014 and Los Angeles in 2015). The meeting took place from 4 to 7 July 2016, during which a seminar was organized at Hongik University with Korean academics and freight and logistics professionals. Reciprocal presentations were made on the priority themes of urban freight transport in Los Angeles, New York, Paris and Seoul (presentations soon available here: www.metrans.org/metrofreight). A day of technical visits was organized which allowed the group to learn about the new urban architectures of logistics buildings. The Seoul Integrated Freight Terminal recently opened in the heart of the Seoul metropolitan area has seven floors, two of which are underground

Seoul Integrated Freight Terminal, photo: L. Dablanc, 2016

MetroFreight teams from Los Angeles, New York, Paris and Seoul in Korea, photo: L. Dablanc, 2016

INSTITUTIONAL PARTNERS OF THE METROFREIGHT PROJECT

NEWS AND AGENDA

Symposium Mobilize, Yichang, China

By Marie-Angélique Nicol, Project Manager APUR

The first Mobilize1 symposium entitled "Mid-size cities take the lead" on sustainable urban mobility was held in Yichang, Hubei, China, from 21 to 23 September 2016. This international symposium, organized by the Institute for Transportation and Development Policy (ITDP), was supported by VREF and supported by the Yichang Municipality and the ADB (Asian Development Bank).

This congress brought together nearly 200 participants from all continents. Most of the sessions were devoted to topics related to the urban transport of passengers such as taking into account the different scales of mobility (from public transport to pedestrian paths), mobility linked to new technologies (shared mobility, on demand ...) , The difficulties encountered by women in the use of public transport in many countries of the South, and the role of mobility plans.

A session was, however, devoted to urban logistics, to which the Apur was invited to present the reflections carried out in Paris on this subject. This session, entitled "Urban Freight: managing the flow of goods in rapidly growing cities", allowed discussion with three other speakers at the round table, representing the Korea Transport Institute, the Indian Institute of Technology of Dehli and the Yichang Logistics Bureau. The moderator was from the Rensselaer Polytechnic Institute (New York State).

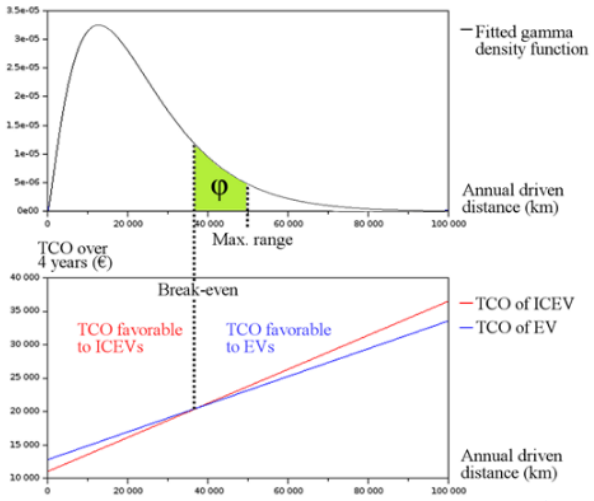
The session was held at the Three Gorges Regional Logistics Park, located 40 km downstream from the eponymous dam, which entered service in summer 2013 to supply food to the 4 million inhabitants of Yichang City. This logistics platform comprises 800,000 m² of buildings on a 72-hectare right-of-way. It hosts more than 2,000 logistics and wholesale businesses that process 7.2 million tonnes of goods a year.

Its location near the Yang-Tse, the airport, the railway and a highway node ensures an exceptional connection to all of China and the world (the Yang-Tsé flows north of Shanghai). In spite of these advantages favorable to intermodality, it nevertheless seemed to us during the visit that this platform functioned essentially thanks to its connection motorway. The visit allowed us to see various distribution centers, warehouse spaces, wholesalers as well as the health analysis laboratory and the security station.

A METHODOLOGY FOR EVALUATING THE POTENTIAL OF ELECTRIC VEHICLES, APPLIED TO THE FOURGONNETTES IN FRANCE PIERRE CAMILLERI, DOCTORANT RENAULT / IFSTTAR

The article develops a methodology for evaluating the Competitiveness of the electric vehicle with respect to the vehicle thermal. The constraints studied are of two types: Autonomy and cost. This methodology Of Total Cost of Ownership (TCO) calculations and The inherent link between cost and autonomy, which Materialized by the cost and size of the battery. Relying on A Gamma distribution to describe the distribution of distances Average, we define an estimator of the share of Simplified market, the literal expression of which is known. A Stochastic approach makes it possible to overcome the need Detailed data to represent the diversity of uses and Contexts. The sensitivity of the result to uncertainties of the input variables is also measured.

The article then presents results of the methodology Applied to the van segment in the French case. The Competitiveness of the electric vehicle is analyzed both for Of vehicles already marketed and for vehicles Projected in 2021. The main expected developments are Increase the size of the batteries (at iso-cost) and a decrease grants. The results show that the Electric vehicle is likely to grow. However, Especially their large variability, which is explained in particular by their Sensitivity to market parameters such as the price of diesel or The level of subsidization of the electric vehicle. Different clusters of activity are explored, and the transport of Appears to have the best potential for The use of the electric vehicle. Moreover, it appears that the Lowering the price of batteries mechanically leads to Diversification of the supply of battery sizes, and its impact has been quantified. This suggests that a calculation of future market shares Of the electric vehicle must take account of this diversified offer.



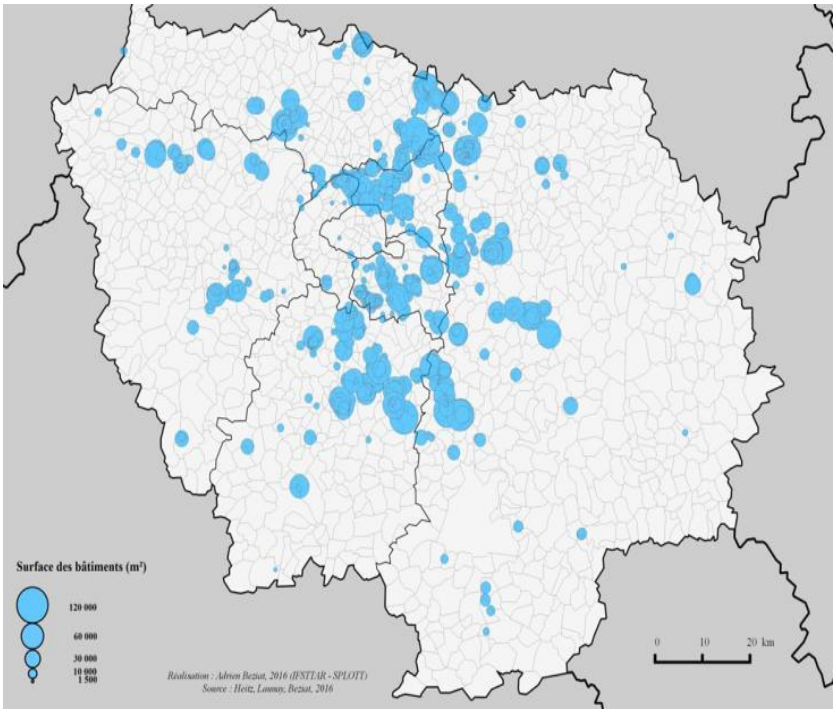
"The green area φ represents the estimated market share of electric vehicles In a specific case, depending on the autonomy and the total costs of ownership (TCO) "

CENSUS OF LOGISTIC WAREHOUSES IN THE ILE-DE-FRANCE A. HEITZ, P. LAUNAY AND A. BEZIAT, IFSTTAR DOCTORS

A recent collective effort has made it possible to develop a Methodology to collect accurate and accurate data on The location of warehouses in the Ile-de-France region for 2015. Combining different data sources, public And private investigations and by fieldwork, they have constructed A database listing all the warehouses and Logistics terminals. The Regional Census of Logistic Buildings (RRBL)

Accounts for establishments carrying out transactions Logistics for own account and account for others, Warehouses of less than 5,000 m² and Of the existing fleet. The RRBL distinguishes Logistical buildings and takes The case of shared buildings. Warehouses are Geolocalized precisely to the building. This database contains information on the Logistical buildings and logistics buildings (Size, address, workforce).

This collective work was also an opportunity to create a Logistics activities (in 20 sectors) in order to To update the stakes of a logistic geography Heterogeneous and complex. In this typology, Warehouses in connection with sectors such as wholesalers Industrialists, wholesalers of equipment, ecommerce, Industrial warehouses, large-scale distribution, Messaging terminals, hubs ....



Location of logistics warehouses according to their size,Source: A. Heitz, P. Launay, A. Beziat, 2016