

### THE PROJECT METROFREIGHT

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

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

Local institutional partners are involved in each university. IFSTTAR is fortunate to count among its partners, key organizations that are the Paris Region, the City of Paris, the DRIEA, IAU and APUR agencies. They join the city of New York, the city of Seoul and Los Angeles County in the communities involved.

The project is funded by VREF (Volvo Research and Educational Foundations), foundation-funded (but independent of) the Volvo group that created ten centers worldwide to conduct research on the subject of urban transport for the future.

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

- Data and statistics, Atlas urban freight, leader: UTRC
- Public policy and impact on transport supply of urban goods, leader: USC
- The last kilometers, leader: IFSTTAR
- The interactions cargo / passengers leader: USC
- Spatial dynamics, logistics planning, leader: UTRC
- The behavior of consumers and producers, leader: UTRC

[WWW.METRANS.ORG/METROFREIGHT](http://WWW.METRANS.ORG/METROFREIGHT)

---

### NEWS AND EVENTS

- **Antoine Montenon** left the team to take a position at LUTB Lyon. **Nora Mareï** left the team to take a position at CNRS. We send friendly greetings and wish them well in their future work.
- METROFREIGHT team welcomes **Leise Kelli Oliveira**, professor at Federal University of Minas Gerais, Belo Horizonte (Brazil), member since October 2015, who works on the theme of urban freight and a Franco-Brazilian comparison.

- METROFREIGHT team welcomes **Takanori Sakai**, University of Illinois doctoral student in Chicago, who was hosted for three weeks, September to October 2015, to work on a comparison of the location of phenomena logistics between Paris and Tokyo. **Paola Cruz**, PhD student from the University of Los Andes (Bogota, Colombia), who has been a member of the team for one month in an exchange university, and working on logistics activities in Cali and Bogota.
- METROFREIGHT Paris team, with the support of California METRANS Transportation Center, will organize two days of **Training freight transport** in the city for local authorities and communities on December 14 and 15, 2015.
- Adrien Beziat, Laetitia Dablanc, Adeline Heitz, Nora Marei and Antoine Montenon went to the 9<sup>th</sup> International Conference "City Logistics" from June 17 to 19, 2015 in Tenerife, Spain. This conference, organized by E. Taniguchi and R. Thomson, the Institute for City Logistics, meets every two years and is a meeting to discuss research on urban freight conducted in different cities worldwide. The papers presented by the team members will be available on the website of the Institute for City Logistics (<http://citylogistics.org/publications/>).
- Laetitia Dablanc presented different research on urban freight (including METROFREIGHT) funded by Volvo Research and Educational Foundations (VREF) to the United Nations Conference on Trade and Development in Geneva on October 14 and 15 <http://www.vref.se/5.679126b5150793b7411d47f4.html>. The debate focused on sustainable logistics and issues raised in the emerging countries.
- Adrien Beziat, Laetitia Dablanc, Adeline Heitz and Eleonora Morganti went to Long Beach, California for the I-NUF conference (International Urban Freight) organized by METROFREIGHT and the METRANS Transportation Center from October 21 to 23, 2015. This conference brings together researchers and logistics, transport and trade professionals around the issue of urban freight and its evolution. A Keynote Speech was presented by Mathieu Gardrat, Laboratory Transport Economics from Lyon, and Laetitia Dablanc, on urban freight survey investigation in Ile-de-France. Laetitia Dablanc presented the results of its work in the summer of 2015 on how local authorities in Southern California face the rapid development of warehouses, especially in the large suburban area of the Inland Empire, east of the city. Adeline Heitz presented his collaborative work with Laetitia Dablanc and L. Tavasszy (TNO, Delft) on the logistics urbanization in metropolitan Paris and in the metropolis of the Randstad. Adrien Beziat presented his collaborative work with Martin Koning on a theoretical framework for measuring congestion on a macro scale, by crossing data matrices OD freight and passengers, and with Pierre Launay on the relationship between the shape of tour merchandise and the logistics of transport operators in the Ile-de-France. During and after the conference, the mid-term evaluation of METROFREIGHT by Swedish experts appointed by VREF was also conducted. All teams from Los Angeles, New York, Paris and Seoul were interviewed individually or in groups. They presented their results and prospective work program for the two and a half years remaining.
- Visit to the Port of Long Beach: The I-NUF conference ended with a tour of the Middle Harbor, the Long Beach Container Terminal of the future, a redevelopment project combining two aging container terminals into one state-of-the art terminal to improve cargo movement efficiency and environmental performance. It will be one of the most automated container terminals in

the United States. We also visited a regional transport company testing on behalf of the California authorities, various clean trucks, from hybrid, electric to hydrogen.

- Form tours of urban goods, Beziat, P. Launay, and F. Tollier. During the I-NUF conference, Adrien Beziat presented a paper co-written with Pierre Launay and Florence Tollier, the Laboratory of Transport Economics. The objective of this work is to study the form of urban freight tours taking into account the logistics of transport operators. This study presents the recent survey data from Urban Freight Surveys, including those of delivery drivers. Organizations are identified by an expert through qualitative interviews with key representatives of the French transport operators. The tours are categorized according to the type of operations. The results show that the forms of tours radically change according to the organization. The figure below shows the differences identified in three categories: operations specializing in the transport of parcels, operations specializing in transporting pallets, and "mixed" operations, more traditional. The work differentiates the impact of traffic on transport time from vehicle goods (light and heavy vehicles) and private cars, but also distinguishes the impact of trucks and small vehicles on the time of transport. The analysis shows in particular only 1% of additional HGV traffic has a greater impact on congestion than 1% additional light vehicles.
- The logistics urbanization in cities (Paris and the Randstad), A. Heitz, Dablanc L., L. Tavasszy. The development of logistics in the suburbs is often due to logistics suburbanization, and is part of a spreading logistics process. Comparing the case of the Parisian metropolis with changes in the location of warehouses in the Randstad metropolitan region, another logistics urbanization model is observed: logistics intensification. In the Randstad, warehouses tend to concentrate in urban centers rather than suburbs. The fragmented structure of this Metropolitan region has encouraged the development of logistics in dense areas. In the case of Randstad and Paris, increased logistics reflect a polycentric metropolitan structure, and logistics suburbs seem to be a symptom of metropolitan areas single center. Different forms of urbanization logistics reveal a variable level of integration of warehouses in metropolitan structures. The logistic activities are not condemned to "flee" in the suburbs. Under certain conditions, these activities can stay in the densest parts conurbation. The role of public policies weighs heavily on the form of the urbanization logistics.

The METROFREIGHT team IFSTTAR, contacts and role in the project

- Laetitia Dablanc  
Research Director  
Urban planning  
Project manager for the Ile part  
01 81 66 87 78  
[laetitia.dablanc@ifsttar.fr](mailto:laetitia.dablanc@ifsttar.fr)
- Françoise Bahoken  
Engineer studies  
Geography: spatial analysis  
GIS and Mapping  
01 81 66 87 82  
[francoise.bahoken@ifsttar.fr](mailto:francoise.bahoken@ifsttar.fr)

- Adrien Beziat  
PhD student  
Goods transport, City congestion  
01 81 66 87 84  
[adrien.beziat@ifsttar.fr](mailto:adrien.beziat@ifsttar.fr)
- Pierre Camilleri  
CIFRE PhD student with Renault  
Electrical, logistics vehicles urban  
01 81 66 87 88  
[Pierre.camillieri@ifsttar.fr](mailto:Pierre.camillieri@ifsttar.fr)
- Martin Koning  
Researcher  
Economist, transport inquiry  
Urban goods  
01 81 66 87 80  
[martin.koning@ifsttar.fr](mailto:martin.koning@ifsttar.fr)
- Adeline Heitz  
PhD student, urban logistics  
Metropolitan planning  
01 81 66 89 31  
[adeline.heitz@ifsttar.fr](mailto:adeline.heitz@ifsttar.fr)
- Pierre Launay  
PhD student, subcontracting  
Logistics, road transport  
01 81 66 87 41  
[pierre.launay@ifsttar.fr](mailto:pierre.launay@ifsttar.fr)
- Gwenaëlle Raton  
Researcher  
Short circuits and logisticsAlimentary  
01 81 66 87 87  
[Gwenaelle.raton@ifsttar.fr](mailto:Gwenaelle.raton@ifsttar.fr)
- PetronillaRème-Harnay  
Research Fellow  
Economist, studies  
Road transport market  
Merchandise  
01 81 66 87 96  
[petronille.reme-harnay@ifsttar.f](mailto:petronille.reme-harnay@ifsttar.f)