LAST MILE FREIGHT DELIVERY

Use of cleaner mobility vehicles

Presented by UNIVERSITY TRANSPORTATION RESEARCH CENTER - REGION II

In collaboration with:

- IDMEC Instituto Superior Técnico, Lisbon
- New York State Energy Research and Development Authority (NYSERDA)
- New York State Department of Transportation (NYSDOT)

Date:

Friday, October 4, 2013

Time:

8:30am - 4:30pm

Location:

Baruch College/CUNY William and Anita Newman Conference Center 151 East 25th Street, 7th Floor, New York, NY 10010.









Last Mile Freight Delivery: Use of Cleaner Mobility Vehicles

The event will present cross-disciplinary perspectives on urban logistics using electric vehicles (EV) and other vehicles as a sustainable mobility transportation solution. Presentations at the event will reflect various perspectives, as speakers will represent the public and private sectors and academia, including public officials, community leaders, transit community members, academia, consultants and the interested public. The multi disciplinary team will be from the U.S. and Europe. The event will provide a forum that will gather experts and sustainability advocates to focus on the actions that can be taken immediately to meet the environmental challenges and take advantage of the business opportunities presented by such dense city areas, namely with the use of small sized mobility solutions.

AGENDA

8:30 AM – 9:00 AM	Welcome Breakfast and Registration
9:00 AM – 9:15 AM	Welcome Remarks • Dr. Camille Kamga, UTRC • Tiago Farias, Instituto Superior Técnico • Arkadiy Sherman, NYSDOT region 11
9:15 AM – 10:30 AM	Cities and Logistics Moderator: Howie Mann, NYMTC Stacey Hodge, NYCDOT Laetitia Dablanc, IFSTTAR, Paris Sandra Melo, Instituto Superior Técnico, Lisbon Patricia Baptista, Instituto Superior Técnico, Lisbon
10:30 AM – 10:45 AM	Break
10:45 AM – 12:15 PM	Cities and Logistics (continued) Moderator: Tiagos Farias, IST • Hans Quak, TNO Mobility and Logistics • José Holguín-Veras –RPI • Cathy Macharis, Vrije University -Brussels • Erik Andrus, Vermont Sail Project
12:15 PM – 1:15 PM	Lunch Michael Fowles, Duane Reade
1:15 PM – 2:00 PM	Innovative Urban Logistics Solutions – Bikes: Discussion about Bike use for Freight Delivery in Different US Cities (Boston, NYC, Portland) Moderator Alison Conway • Wenzday Jane, Metro Pedal Power • Franklin Jones, B-Line: Sustainable Urban Delivery • Greg Zuman, Revolution Riskshaws
2:00 PM – 3:20 PM	Policy/Incentives/Regulatory Issues – Moderator Camille Kamga, UTRC Electric Bike Regulations in New York State • Adam Lubinsky, WXY Architecture and Urban Design • Susan McSherry, NYCDOT, Hunts Point Clean Trucks Program • Alycia Gilde, CALSTART, New York Truck - Voucher Incentive Program
3:20 PM – 3:30 PM	Closing Remarks
3:30 PM – 4:30 PM	Duane Reade Electric Vehicle Demo

Speakers

ERIK ANDRUS

Project Director, Vermont Sail Project

Erik Andrus serves as a project director of Vermont Sail Freight Project (VSFP). As a renovation contractor (12 years) and as a farmer (7 years), Erik has extensive experience with large and complex projects, and is adept at finding constructive solutions to vexing problems. For example, after several seasons of frustration trying to grow wheat and barley in a Vermont climate subject to increasingly torrential summer rains, Erik shifted the farm's focus from these European crops to Japanese rice, making the increasingly waterlogged nature of our summers from a detriment to an advantage. Now Erik's rice farm is the largest producer of quality Japanese rice in the Northeast.



PATRÍCIA BAPTISTA

Post-doctoral Researcher, Instituto Superior Técnico Technical University of Lisbon, Portugal

Ms. Baptista received the Chemistry Master's degree in 2006 at Instituto Superior Técnico, Technical University of Lisbon, Portugal, with her final essay focused on the development of biodiesel quality control methods. Patricia is part of IDMEC-IST since December 2007. She obtained her PhD in Sustainable Energy Systems within the MIT-P Program at Instituto Superior Técnico in 2011, in the area of the evaluation of the impacts of alternative vehicle technologies and alternative energy sources in the road transportation sector, having several papers in scientific journals and international conference proceedings. Patricia is currently part of the team as a postdoctoral researcher in the field of the impacts of information and communication technologies (ICT) in urban mobility.



ALISON CONWAY

Assistant Professor, The Department of Civil Engineering at the City College of New York/CUNY

Alison Conway is an Assistant Professor in the Department of Civil Engineering at the City College of New York and the Associate Director for New Initiatives at the Region 2 University Transportation Research Center (UTRC). Currently, her primary areas of research focus include sustainable urban logistics, interactions between freight, passenger and non-motorized modes in livable communities, and logistics in the material reuse and donations sector. Dr. Conway holds Ph.D. and Master's degrees in Civil Engineering (Transportation) from the University of Texas at Austin and a Bachelor's of Civil Engineering from the University of Delaware. She is a member of TRB's Truck Size and Weight and Freight Data Committees. Dr. Conway also serves as Vice Chair of the TRB Young Members Council, on which she represents the Freight Systems Group, and co-chairs TRB's Freight Systems and Marine Young Member's Council.



LAETITIA DABLANC

Director of Research, The French Institute of Science And Technology for Transport, Development And Networks (IFSTTAR)

Laetitia Dablanc is a Director of Research at the French Institute of Science and Technology for Transport, Development and Networks (IFSTTAR, University of Paris-Est), and a member of METROFREIGHT, a VREF Center of Excellence in urban freight research.

Her areas of research are freight transportation, freight and the environment, urban freight and logistics, rail freight, freight transport policies. She is currently working on logistics sprawl issues and freight transport planning in U.S. and European megaregions.



She is a member of the steering committee of the World Conference on Transport Research Society and a member of the Urban Freight Committee of the Transportation Research Board (USA). She received a PhD in transportation planning from Ecole des Ponts-ParisTech, and a Master's degree in city and regional planning from Cornell University. She was initially trained in policy analysis and economics at Science Po Paris. She was a visiting scholar at the Georgia Institute of Technology (2010-2011) and the University of Southern California/METRANS (2011-2012).

TIAGO FARIAS

Assistant Professor, The Mechanical Engineering Department of Instituto Superior Técnico, Lisbon

Dr. Tiago Farias is an Assistant Professor at the Mechanical Engineering Department of Instituto Superior Técnico, Lisbon, since 1997 after obtaining his Ph.D. degree in Mechanical Engineering. As a teacher, Prof. Tiago Farias is responsible for several courses: "Transports, Energy and Environment" of the Mechanical Engineering Course of IST; and "Energy in Transports" of the Sustainable Energy Systems Ph.D. course of the Massachusetts Institute of Technology-Portugal Program (MIT-P Program). As a researcher, Prof. Tiago Farias has published more than 130 papers in scientific journals, international books and international conference proceedings. Within the Research Team, Prof. Tiago Farias has been responsible for organizing and lecturing several courses and



workshops on alternative energies for transports, sustainable mobility solutions, and new technologies for vehicle propulsion systems at IST and in several other universities and technical institutes in Portugal.

MICHAEL FOWLES

Fleet Manager, Duane Reade

Michael Fowles leads the transportation operation at Duane Reade based in New York City. Duane Reade, part of the Walgreens family of companies, is the largest pharmacy chain in the city and operates over 250 stores in the region. To support the chain-with over 160 stores in Manhattan alone-requires hundreds of deliveries a week. To mitigate the impact that this has on the communities that Duane Reade serves, the fleet has actively implemented various sustainable strategies.

Chief among them is the introduction of 100% electric vehicles that have expanded from 0 to nearly 25% of the entire fleet over the last year. Duane Reade is also actively involved in recycling efforts with corrugate (thousands of tons) as well as several million (and counting) bottles and cans being recycled. Prior to Duane



Reade, Mr. Fowles was Vice President of Operations of a food distributor and medical device company, worked for an international asset based transportation company, and sailed with two global ocean carriers.

ALYCIA GILDE

(NYT-VIP) Project Leader and Northeast Representative for CALSTART, New York Truck-Voucher Incentive Program

Alycia Gilde is the New York Truck – Voucher Incentive Program (NYT-VIP) Project Leader and Northeast Representative for CALSTART. Alycia oversees the development and implementation of NYSERDA's \$19 million incentive program to advance clean vehicle technologies in New York. Alycia is responsible for spearheading CALSTART's east coast clean transportation initiatives and recently supported U.S. EPA Regions 1 and 2 with the development and facilitation of the Northeast Diesel Collaborative Partners Meeting focused on advancing clean air solutions in the northeast through public/private partnerships. Prior to CAL-



START, Alycia played an important leadership role in some of the nation's largest goods movement emission reduction programs including; the Ports of Los Angeles and Long Beach Clean Trucks Programs, The Port Authority of New York and New Jersey Regional Truck Replacement Program and New York City Department of Transportation's Hunts Point Clean Trucks Program. Alycia graduated from the University of Connecticut with a B.A. in Global Environmental Mass Media and served in the Peace Corps for two years in Ghana, West Africa as an Environment Volunteer and as the National Gender and Youth Development Coordinator.

STACEY HODGE

Director of the Office of Freight Mobility for the New York City Department of Transportation

Ms. Hodge is the Director of the Office of Freight Mobility for the New York City Department of Transportation. Ms. Hodge coordinates with City, State and Federal agencies on transportation projects and policy. With over 15 years of private and public sector experience, Ms. Hodge focuses on meeting the goods movement needs of businesses while also working to minimize truck impacts on residents in the City.

On May 30th, 2013, U.S. Transportation Secretary Ray LaHood appointed Ms. Hodge to the National Freight Advisory Committee (NFAC), which includes a diverse group of professionals that will provide advice and recommendations aimed at improving the national freight transportation system. Ms. Hodge was remaid as above of the First and Leat Mile NFAC Subsempittee which is one of

named co-chair of the First and Last Mile NFAC Subcommittee which is one of six NFAC Sub-committees.





WENZDAY JANE

Founder, Metro Pedal Power Boston's Human-Powered Transportation Specialists, Logistics, Hauling and Vehicle Services

Wenzday is an Urban Native from Boston, MA. Her background is in mechanics and metal fabrication, with a passion for understanding how things work. For the past 6 years, she has been fully engaged in building her company, Metro Pedal Power, exploring opportunities to replace trucks and vans with bikes and pedal-powered vehicles in the congested areas of the city.



She came from a heritage of poverty. Growing up in a low-income housing project, she watched her family and neighbors struggle with issues of dependence, disempowerment, and inertia. She has been working hard her whole life to pull herself out from under the weight of some of the inherited issues. Through this personal process, she has become increasingly interested in community and societal strategies for fostering self-reliance, in the context of an interdependent world.

To her the bicycle is a vehicle of freedom, of self reliance, and empowerment. Riding a bike helped her realize that she had control over her own path. She had the profound realization that it was her own power taking her where she needed to go.

FRANKLIN JONES

Owner/CEO, B-Line: Sustainable Urban Delivery

The seeds for B-line were planted into Franklin's life long before he knew it. Who knows where it all really began, perhaps somewhere in that lofty call to serve the Common Good instilled upon all Bowdoin College grads. A formal genealogy of B-Line began with Franklin's first "real" job out of school as a bicycle and pedestrian planner in Bend, OR for David Evans and Associates. The concept silently percolated over a thirteen-month, 10K bicycle trip from Japan to Ireland and then had some time to rest as Franklin entered a rewarding career in education as a sixth grade teacher in the SF Bay Area. In 2008, his entrepreneurial and adventurous spirit took over and Franklin departed sunny San Francisco for the greener pastures of Portland, OR. Never short on ideas to enhance the community around him, Franklin combined his interest in seeing



how business can be a catalyst for social and environmental change with his love of cycling and founded B-Line. Franklin loves how when the right tool for the job is used, the right team steps up, and a day-to-day commitment towards a sustainable future is embedded in the culture of a company all stakeholders benefit—everybody wins. You can catch him on the trikes working to enhance the fabric of our cities one pedal stroke at a time.

CAMILLE KAMGA

Director, The University Transportation Research Center - Region 2

Dr. Camille Kamga is the Director of the federally supported University Transportation Research Center (UTRC) and an Assistant Professor of Civil Engineering at the City College of New York (CCNY). A consortium of 17 major U.S. academic institutions, UTRC asserts a significant role in the region and nationally, conducting research and projects on surface transportation, carrying out training and educational programs and actively disseminating the results of its work. It is one of the few such centers in the U.S. with a concentration in public transportation operations, policy and management. Dr. Kamga oversees the Center activities and works closely with federal, regional and state transportation planning and



policy organizations. He also serves as member of the Board of Directors of the Intelligent Transportation Society of NY - a professional group providing education and outreach to foster the understanding of ITS applications and technologies. He holds a Ph.D. in Civil Engineering from the Graduate Center of the City University of New York, specializing in Intelligent Transportation Systems (ITS). He is the 2006 recipient of the National Pikarsky Award for Outstanding Dissertation in Science and Technology from the Council of University Transportation Center. His doctoral thesis was on the topic of "Estimation of Network Based Incident Delay in a Transportation Network Using Dynamic Traffic Assignment." In addition to his research and administrative duties, Dr. Kamga has participated and is currently participating in numerous transportation-related projects at UTRC. Dr. Kamga's research interests are in the modeling and of transportation network, analysis of very large transportation networks, and application of technology for transportation. Dr. Kamga is currently the principal investigator of many research projects sponsored by the New York State Department of Transportation, New York Metropolitan Transportation Council, New York State Energy and Research Development Authority, New Jersey Department of Transportation, and New York City Transit.

ADAM LUBINSKY

Managing Principal WXY Architecture + Urban Design

Adam joined WXY Architecture and Urban Design as a Principal in 2011, bringing a background in urban design, planning, sustainability and bringing an integrated approach to master plans, feasibility studies, planning policy research and regeneration strategies for downtowns and brownfield sites. Adam received his BA from Brown University and has a Masters in Architecture from Columbia University and a Ph.D. in Planning and Urban Design from the University College London. He has been a teaching fellow for the M.Sc. in Urban Design and the M.Sc. in Town Planning at the Bartlett Schools of Architecture and Planning. Adam has more than 10 years of experience with public and private sector clients, including work for government departments and city agencies, community development corporations, major cultural institutions and developers.



HOWARD J. MANN

Associate Transportation Analyst, NYMTC

Howie Mann is an Associate Transportation Analyst with the New York Metropolitan Transportation Council. He is the Acting Staff Director of the Nassau/ Suffolk Transportation Coordinating Council and past manager of the NYMTC Specialized Planning Unit. In addition to managing the TCC he concentrates on freight planning. He has worked on a number of projects including the Freight Village Study and America's Marine Highway Program, and chairs the MPO freight advisory committee. His current freight project is managing NYMTC's regional freight plan update. He has been with NYMTC for thirty years. Before NYMTC he worked in Operations Planning for Metro North Railroad. He has a Masters degree in Transportation Planning and Engineering from Polytechnic Institute of New York, now Polytechnic Institute of New York University. He is an adjunct professor at Polytechnic, teaching a graduate level class in freight transportation. He has presented to Transportation Research Board annual meetings, Pro Walk/ Pro Bike biannual conferences, numerous civic organizations, college classes, and has spoken on radio programs. He belongs to the New York State Association of Transportation Engineers.



CATHY MACHARIS

Professor at the Vrije Universiteit Brussel and visiting professor at the University of Gothenborg

Cathy Macharis is Professor at the Vrije Universiteit Brussel and visiting professor at the University of Gothenborg. She teaches courses in operations and logistics management, as well as in transport and sustainable mobility. Her research group MOBI (Mobility, Logistics and Automotive Technology) is an interdisciplinary group focusing on sustainable logistics, electric and hybrid vehicles and travel behavior. She has been involved in several regional, national and European research projects dealing with topics such as the location of intermodal terminals, assessment of policy measures in the field of logistics and sustainable mobility, electric and hybrid vehicles, etc. She has published several books and written more than 100 papers. She is the chairwoman of Brussels Mobility Commission and of the Nectar cluster on logistics. She is the member of the board of Waterwegen en Zeekanaal, Vervoerslogistieke werkdagen, Vlaamse Stichting Verkeerskunde and BIVEC. She acts as expert for the Flemish Mobility Council (MORA) and the Flemish Logistics Institute (VIL).



SUSAN MCSHERRY

Program Manager, New York City Department of Transportation, Division of Traffic & Planning

Susan McSherry is a Program Manager at the New York City Department of Transportation, Division of Traffic & Planning. She is responsible for grant program development and project management, including assisting NYC agencies in advancing their Green Fleet initiatives to lower CO2 and criteria pollutant emissions from the City's vehicle fleet; conducting lead Program Manager functions for the DOT Hunts Point Clean Trucks Program, which offers incentive rebates to private fleets in the Hunts Point/Port Morris area of the South Bronx; assisting on the NYC/Empire Clean Cities on petroleum reduction policy and implementation, and conducting relevant public outreach and education to community and technical groups on the subject of clean vehicles. Susan holds a Masters in Urban Planning from Hunter College.



HANS QUAK

Logistics Advisor, TNO Mobility and Logistics

H.J. (Hans) Quak Ph.D. has been working at TNO Mobility and Logistics from 2007 on. He especially focuses on logistics in urban areas and collaboration in logistics. Currently, Hans is leading the Business Case (at TNO, theme Mobility) Smart Hubs.

Hans was / is involved in several projects on city logistics (e.g. FP7: FREVUE, Straightsol, CityLog). He has been involved in several research projects on sustainable logistics and the influences of external factors (e.g. transport policy or climate change) on the logistics organisation in companies. He was project manager of the Transumo-project 'Transition towards sustainable urban freight transport' and (co) authored several reports and papers on freight transport, logistics and (local) policy in these areas (e.g. logistics hotspots in the Netherlands, city logistics and road pricing). Hans is also appointed as assistant professor for one day a week at the Delft University of Technology (section Transport Policy and Logistics' Organisation)



Before, from 1997 to 2002 Hans studied Business Administration at the Erasmus University Rotterdam after which he started as a Ph.D. candidate at the Rotterdam School of Management in January 2003. In his Ph.D. research he focused especially on urban freight transport (city logistics), urban access restrictions, sustainability and retail logistics. Hans successfully defended his Ph.D thesis 'Sustainability of Urban Freight Transport' in March 2008. Hans published papers in international top journals, such as Journal of Operations Management (best paper 2007 finalist award) and Transportation Science. Next to the research activities, Hans was also responsible for courses in the International Business Administration program. Hans presented his research at several (international) conferences and published in international journals and (reviewed) books.

SANDRA MELO

Research Fellow at FEUP and Post-doc Researcher at IDMEC-IST

Dr. Sandra Melo has been focused on urban freight transport and green logistics. She completed her PhD in 2010 at FEUP, Porto, Portugal, investigating the influence of the power of the local context on the performance of urban goods distribution 'best practices' towards a more sustainable mobility, considering public and private (freight and passenger) transport. She is now Research Fellow at FEUP and Post-doc researcher at IDMEC-IST. Sandra is also coordinator of the cluster 'Logistics and Freight' of the Network on European Communication and Transportation Activities Research, currently focused on 'Sustainable Logistics'. Along her Post-Doc she is now investigating the analysis of the potential use of EV for freight transport and city distribution. She has written many contributions on the topic of sustainable freight transport, of which it is of interest to this proposal the book 'City Distribution And Urban Freight Transport- Multiple Perspectives' co-edited with Cathy Macharis.



ARKADIY SHERMAN

Senior Transportation Analyst, NYSDOT Region 11 Regional Administrator Federal - Aid Programs

For almost 20 years of Mr. Sherman career with the Region 11, New York State Department of Transportation, his primary area is focusing on overseeing and administering federal - and state – aid local transportation projects emphasizing on obtaining federal authorization in funding in various federal programs, including a number of past and current projects dealing with introducing and advancing alternative fuels vehicles, and tracking performance and progress of these projects.

Prior to joining NYSDOT, Mr. Sherman during 18 years was working in the former USSR serving in a middle size northern-west town as a Deputy Director of Operations with the Municipal Bus Depot, and then Freight Moving company.



JOSE HOLGUIN-VERAS

Professor, Renssalaer Polytechinc Institute

Dr. José Holguín-Veras is the William H. Hart Professor and Director of the Center for Infrastructure, Transportation, and the Environment; and the Volvo Research and Educational Foundations' Center of Excellence on Sustainable Urban Freight Systems at the Rensselaer Polytechnic Institute. He received his B.Sc. in Civil Engineering, Magna Cum Laude, from the Universidad Autónoma de Santo Domingo, Dominican Republic, in 1981; his M.Sc. from the Universidad Central de Venezuela in 1984; and his Ph.D. from The University of Texas at Austin in 1996. He has been a faculty member at California Polytechnic State University at San Luis Obispo, The City College of New York (1997-2002), and Rensselaer Polytechnic Institute (2002-present). His work has received numerous awards, including the 2013 White House Champion of Change Award for his contributions to freight transportation and disaster response research.



His research emphasizes the integration, synthesis, and projection of the knowledge that exist in multiple disciplines to produce solutions to the complex and multifaceted problems—which have proven to be too complex to be solved by single-disciplinary approaches—that impact freight transportation and humanitarian logistics. His research taps into the knowledge of social sciences to build more realistic mathematical models of humanitarian logistics, and integrate cutting edge economic principles into freight transportation modeling, so that a complete picture could be developed on the broader impacts of transportation activity on the economy and the environment; and on the most effective ways to conduct post-disaster humanitarian logistics. His research blends field research and measurements, applied and basic research to ensure that theory relates to reality; and, ultimately, to a set of actionable policy recommendations that contribute to the betterment of the economy and society.

GREGG ZUMAN

Founder & Managing Director, Revolution Rickshaws

At thirteen, Gregg landed his first cycling gig: delivering The Boston Globe in his hometown of Wellesley, MA. That was 1986. In the 1990s, he worked as a bike messenger in Manhattan. After forays into financial editing at various firms and party politics with the New York State Green Party, Gregg dropped back in the saddle: In 2003, he started driving a pedicab. Two years later, in 2005, he acquired a fifteen-trike fleet and founded Revolution Rickshaws. That same year, he co-founded the New York City Pedicab Owners' Association and became the U.S. agent for U.K. trike manufacturer Cycles Maximus. Since then, RR's fleet has doubled in size and its operations have expanded to include last-mile delivery solutions. Today, Gregg drives innovation in craft transport for both freight and passengers in partnership with other cutting-edge enterprises, while continuing to practice the art of pedicabbing in Midtown. He holds a B.A. in Politics from Occidental College.



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University Transportation Research Center

The Region 2 University Transportation Research Center (UTRC) is one of ten original University Transportation Centers established in 1987 by the U.S. Congress. These Centers were established with the recognition that transportation plays a key role in the nation's economy and the quality of life of its citizens. University faculty members provide a critical link in resolving our national and regional transportation problems while training the professionals who address our transportation systems and their customers on a daily basis.

http://utrc2.org/



INSTITUTE OF MECHANICAL ENGINEERING IDMEC / IST

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http://www.idmec.ist.utl.pt/



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The New York State Energy Research and Development Authority (NYSER-DA) is a public benefit corporation created in 1975 by the New York State Legislature. NYSERDA administers the New York Energy \$mart program, which is designed to support certain public benefit programs during the transition to a more competitive electricity market. Some 2,700 projects in 40 programs are funded by a charge on the electricity transmitted and distributed by the State's investor-owned utilities. The New York Energy \$mart program provides energy efficiency services, including those directed at the low-income sector, research and development, and environmental protection activities.

http://www.nyserda.ny.gov/



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