The 4th VREF Conference on Urban Freight will present current issues influencing urban freight research and discuss the interactions between planning, design and business to achieve scalable innovations in the management of urban freight flows that support the goal of achieving liveable cities. The central topic of the 4th VREF Conference is **Urban freight and liveable cities: Interactions between planning, design and business for scalable innovations**.

**Programme Overview**

**4th VREF Conference on Urban Freight**

23 - 25 March 2021 | Virtual

As of 15 March 2021 (YZ)

**Organizers**

The [Urban Freight Platform (UFP)](https://www.urbanfreightplatform.org) is an initiative supported by Volvo Research and Educational Foundations (VREF) on urban freight research based in Gothenburg, Sweden. The UFP works as a facilitator of academic research on urban freight within the context of the logistics competence centre Northern LEAD at University of Gothenburg and Chalmers University of Technology.

**ICLEI - Local Governments for Sustainability**: ICLEI will lead two plenary sessions: one workshop featuring the launch of the EcoLogistics Report 2021 with high-level speakers and one roundtable on improving last-mile deliveries. ICLEI is a global network of more than 1,750 local and regional governments committed to sustainable urban development.
Conference Time Frame

Register for all the sessions [here](#). All registered attendees will receive a document with links to all conference sessions the week before the conference. The conference will use Zoom.

**Day 1: Tuesday 23 March***
08.30 - 10.00  Session 1 - Plenary: Opening session and welcome
13.30 - 15.00  Session 2 - Parallel sessions
15.30 - 17.00  Session 3 - Parallel sessions
17.00  End of Day 1

**Day 2: Wednesday 24 March***
08.30 - 10.  Session 4 - Parallel sessions
12.00 - 13.00  **Session 5 - Plenary: ICLEI workshop**
   **Report launch: “Creating sustainable cities through low-carbon freight: EcoLogistics in Argentina, Colombia and India”** | [Add to your calendar](#)
13.30 - 15.00  Session 6 - Parallel sessions
15.30 - 16.  **Session 7 - Plenary: ICLEI roundtable**
   **EcoLogistics: Improving last-mile delivery** | [Add to your calendar](#)
17.00 - 18.30  Session 8 - Parallel sessions
18.30  End of Day 2

**Day 3: Thursday 25 March***
08.30 - 10.00  Session 9 - Parallel sessions
13.30 - 15.00  Session 10 - Plenary: Presentations and closing
15.00  End of conference

*Central European Standard Time*
ICLEI Plenary
Report launch: “Creating sustainable cities through low-carbon freight: EcoLogistics in Argentina, Colombia and India”
Date & Time: Wednesday, 24 March, 12:00-13:00 CET | Add to your calendar
Language: English

Freight transport and emissions are increasing rapidly and, until now, cities were not equipped to handle the associated challenges. Only about 21 percent of the Nationally Determined Contributions (NDCs) highlighting transport refers to freight transport, however, general understanding and awareness on sustainable freight have grown exponentially in recent years.

As governments set ambitious targets to decarbonize transport, it is critical that they use data to evaluate and make science-based decisions. Through the EcoLogistics project, nine cities - Rosario, Santa Fe, Córdoba (Argentina), Capital District of Bogotá, Metropolitan Area of the Aburrá Valley (AMVA), Manizales (Colombia), and Kochi, Shimla, Panaji (India) - have used the ICLEI EcoLogistics Self-monitoring Tool to compile and evaluate the data on the urban freight activities taking place in their jurisdictions. The data compiled forms a baseline for these cities to take informed, effective action to curb freight emissions - contributing to a sustainable low-carbon future. These cities are some of the first to compile this body of data on urban freight activities.

This session will kick off with the launch of the report: “Creating sustainable cities through low-carbon freight: EcoLogistics in Argentina, Colombia and India” (EcoLogistics Report 2021). Key findings will be presented with high-level speakers and a brief Q&A.

Guiding questions

- How can policy measures or instruments support the development of a sustainable urban freight system?
- How can the course of the spontaneous development be corrected using regulation, intervention or incentives?
- How can urban freight data analysis help improve decision- and policy-making?
- What conversations are necessary for stakeholders to find innovative solutions collaboratively?
- Understanding the carbon footprint of freight

Agenda
Welcome and introduction by the moderator
Ms. Yiqian Zhang, Sustainable Mobility Officer, ICLEI World Secretariat

Presentations: EcoLogistics in Argentina, Colombia and India
Mr. Sanjit Rodrigues, IAS, Commissioner-Corporation of the City of Panaji, India
Mr. Jhonattan Hernandez, Deputy Director of Mobility, Área Metropolitana del Valle de Aburrá, Medellin – Colombia (tbc)
Mr. Camilo Urbano, Director of Urban Planning, Despacio

Moderated panel discussion / Q&A

EcoLogistics Report 2021 launch & Closing remarks by the moderator
Ms. Yiqian Zhang, Sustainable Mobility Officer, ICLEI World Secretariat
ICLEI Roundtable
EcoLogistics: Improving last-mile delivery
Date & Time: Wednesday, 24 March, 15:30-16:30 CET | Add to your calendar
Language: English

The ongoing COVID19 pandemic showed the utmost importance of a reliable, efficient and sustainable freight movement. E-commerce has grown at an unprecedented rate in recent years, and the pandemic has resulted in an explosion in the sector. The behavioral shift in today's society caused by online shopping has put enormous pressure on the urban infrastructure. While meeting the “high frequency-less volume” demand for online shopping, the negative externalities are very high: air & noise pollution, greenhouse gas emissions, road safety etc. Those externalities are further increased due to the absence of a comprehensive understanding of supply chain and freight transport in the urban area among planners and decision-makers (city, state and national level). Moreover, there is a significant disconnect amongst the government bodies who regulate city transport network operations and freight operating industries.

The latest report of World Economic forum suggests, without any interventions, the number of delivery vehicles in top 100 cities globally will increase by 36% by 2030 and consequently, emissions from delivery traffic will increase by 32% and congestion will rise over 21% equaling to an additional 11 minutes of commute time for each passenger every day. The last leg of supply chain is getting a great attention especially of parcel deliveries. The market is not only large but also highly dynamic and is subject to significant technological disruption. What will be the levers of an EcoLogistics future – smart technologies, innovative policies or data-driven planning? The panel will highlight the challenges and opportunities in last mile deliveries, and how to reach a win-win situation for cities, companies and citizens.

Guiding questions
- How can we influence the behavior of consumers or manage expectations with the increasing e-commerce and food delivery trend?
- What are private companies doing to make last-mile logistics more sustainable and safer for drivers?
- How can cities be designed to improve last-mile logistics?
- How can data analytics help improve last-mile logistics?
- How can cities work with online shopping platform to manage last-mile delivery more efficiently and sustainably?

Agenda
Welcome and introduction by the moderator
Michael Browne, Professor of logistics and urban freight transport, University of Gothenburg

Presentations
Juan Esteban Martinez, Subsecretario de Políticas para la Movilidad, Secretaría Distrital de Movilidad, Bogotá D.C., Colombia
Representative from the City of Rosario, Argentina (tbc)

Moderated panel discussions / Q&A
Invite Tu My Tran, Head of Sustainable Mobility, ICLEI World Secretariat in the panel discussion

Closing remarks by the moderator
Michael Browne, Professor of logistics and urban freight transport, University of Gothenburg
Confirmed speakers

Plenary sessions

- Sanjit Rodrigues, IAS, Commissioner-Corporation of the City of Panaji, India
- Juan Estaban Martinez, Subsecretario de Políticas para la Movilidad, Secretaría Distrital de Movilidad, Bogotá D.C., Colombia
- Mr. Jhonattan Hernandez, Deputy Director of Mobility, Área Metropolitana del Valle de Aburrá, Medellín – Colombia (tbc)
- Camilo Urbano, Director of Urban Planning, Despacio
- Tu My Tran, Head of Sustainable Mobility, ICLEI World Secretariat
- Yiqian Zhang, Sustainable Mobility Officer, ICLEI World Secretariat
- Ian Wainwright, Future City Logistics, UK
Parallel sessions

Curbside management

**Caleb Diehl, University of Washington, Urban Freight Lab, USA**
Innovative technological and policy approaches to managing the curb in the United States

**Lokesh Kalahasthi, Chalmers University of Technology, Sweden**
Service Trip Attraction: Implications to Curbside Management

**Ed McCormack, University of Washington, Urban Freight Lab, USA**
Design Guidelines for Commercial Vehicle Envelopes on Urban Streets

**Juan Pablo Castrellon, Chalmers University of Technology, Sweden**
Designing smart loading zones

**Giacomo Dalla Chiara, University of Washington, Urban Freight Lab, USA**
Quantifying the externalities caused by lack of curb-space supply for commercial vehicles in urban areas

**Simon Hayes, Parkunload, Spain**
Kerbside innovation for Delivery as a Service (DaaS)

Digitalization & automation

**Anika Tabassum, Dept. of Civil, Environmental and Geomatics Engineering, Florida Atlantic University, USA**
A Multi-periodic Optimization Based Model for Determining Optimal Fleet Size for a Robot-sharing System

**Daniel Olejarz, University of Toronto, Canada**
An assessment of the use of autonomous ground vehicles for last mile parcel delivery

**Nadia Pourmohammad-Zia, Delft University of Technology, The Netherlands**
Zone Selection for Testing Autonomous Last-Mile Container Cargo Delivery in the Municipality of Rotterdam

**Jean-Paul Rodrigue, Hofstra University, New York, USA**
Home-Based Delivery Supply Chains: The Digitalization Paradigm

Facilities to enhance distribution

**Francisco Javier Mafia-Hernandez, Universidad Nacional de Colombia, Colombia**
Freight trip generation in large facilities

**Isabela K. Oliveira, Federal University of Minas Gerais, Brazil**
Analysis of the relationship between the local characteristics of the cities and the number of the warehouse in a Metropolitan Area

**Ivan Cardenas, University of Antwerp, Belgium**
Staying away from parcels in urban consolidation. A market segmentation study for an urban consolidation centre

**Renata de Oliveira, Federal Center for Technological Education of Minas Gerais, Brazil**
Relationships among urban characteristics, real estate market and spatial patterns of warehouses in different geographic contexts

Samuel G. Odewumi, School of Transport, Lagos State University, Nigeria
Site analysis of major truck, trailer and tanker parks in metropolitan Lagos

From global flows to urban traffic

Abisai Konstantinus, Centre for Transport Studies, University of Cape Town, South Africa
Intermodal Transport in the Southern African Development Community Region: A Mode Choice Assessment in favor of Short-sea Shipping

Claudia De Fuentes, Saint Mary's University, Canada
Gateways and corridors, knowledge hubs, and urban democracy: The case of Halifax, Nova Scotia

Jean Michel Montsion, York University, Canada
The growing role of Toronto's regional municipalities in global value chains: A view from suburban stakeholders

Peter Hall, Simon Fraser University, Vancouver, Canada
Global value chains, municipal democracy and the Gateway: reproducing differentiated urban space in Metro Vancouver

Yuan Wang, University of Washington, Urban Freight Lab, USA
Impact of Port Disruptions to Ferry Terminal Operations Using Discrete Event Simulation.

Saha Razon Chandra, Bangladesh University of Professionals, Dhaka, Bangladesh
An Integrated Intermodal Freight Transportation System for Handling Containerized Cargo of Bangladesh

Last mile initiatives

David Duran-Rodas, Technical University of Munich (TUM), Germany
Who benefits of parcel lockers in Munich, Germany and their potential integration with cargo bike-sharing?

Nadia Pourmohammad-Zia, Delft University of Technology, The Netherlands
Platform-Based Collaborative Routing using Dynamic Prices as Incentives: The Case of a Dutch Trucking Platform

Giacomo Lozzi, University of Roma Tre / TReLab, Polis Network, Italy
Logistics Living Lab to co-create innovative logistics solutions: The case of Rome

Haena Kim, University of Washington, Urban Freight Lab, USA
Measuring and in-building portion of urban deliveries

Klaas Fiete Krutein, University of Washington, Urban Freight Lab, USA
Lesson Learned from Urban Delivery Vehicle Ridealongs

Anaelle Pitoiset, LAET, Université de Lyon, France
Determinants of the food supply in urban areas by Light Goods Vehicle (LGV)

Michela Le Pira, Delft University of Technology, The Netherlands
Linking an empirical multi-agent model with a detailed agent-based simulation to reproduce complex scenarios of urban freight transport: the case of last-mile parcel deliveries

**Lars Gusig, Hochschule Hannover, Germany**

Cost Model to compare different last mile parcel distribution services

**Maja Kiba-Janiak, Wroclaw University of Economics, Poland**

Sustainable last mile delivery on e-commerce market – lesson learned from Covid-19 in Brazil and Poland

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**On demand economy and urban freight**

**Elise Caspersen, Institute of Transport Economics, Oslo, Norway**

Consumer preference for home delivery services and transport emission reduction

**Gopal Patil, Indian Institute of Technology Bombay, Mumbai, India**

Consumers Response towards Online Shopping and Assessing Last Mile Logistics Service in India

**Yuyang Zhou, Beijing University of Technology, China**

Joint distribution problem for small and medium-sized restaurants with on-line-takeout orders

**Zhang Meijing, Singapore University of Technology & Design, Singapore**

Exploring the Potential Impact of Crowdshipping Using Public Transport in Singapore

**Carla Tejada, The City College of New York, USA**

Planning for the City or the Neighborhood? A study of online delivery frequency preferences in New York City

**Heleen Buldeo Rai, Gustave Eiffel University, Paris, France**

Quantifying e-commerce mobility: review of e-commerce data in urban logistics research

**Jean-Paul Rodrigue, Hofstra University, New York, USA**

The Footprint Amazon’s Distribution Network: Vertical and Horizontal Integration of E-commerce Logistics

**Michela Le Pira, University of Catania, Italy**

Modelling dynamic consumer shopping choices and related urban freight flows: the case of e-grocery

**Stefano Saloriani, Politecnico di Milano, Milan, Italy**

B2C e-commerce and home delivery alternatives to reduce traffic flows: an empirical analysis of the Milan metropolitan city

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**Pandemic**

**Ceren Altuntas Vural, Chalmers University of Technology, Sweden**

#Stayhome but how will the goods come to you? Providing access to goods during a pandemic

**Joris Beckers, University of Antwerp, Belgium**

The impact of COVID-19 on online sales of small retailers: a transport perspective

**Laetitia Dablanc, Gustave Eiffel University, Paris, France**

Urban logistics in times of lockdown: an analysis of three surveys in France

**Ugboma Ogochukwu, School of Transport, Lagos State University, Nigeria**
An examination of last-mile logistics of food value chain during COVID-19 pandemic lockdown in metropolitan Lagos

Ivan Sanchez-Diaz, Chalmers University of Technology, Sweden
Assessing the inequalities in access to online delivery services and the way COVID-19 pandemic compounds marginalization

Jean-Paul Rodrigue, Hofstra University, New York, USA

Kianoush Mousavi, University of Toronto, Canada
Toronto Area Off-peak delivery program: Before, during and after COVID-19

Roel Gevaers, University of Antwerp, Belgium
Why covid-19 will change B2C parcel last mile network structures

Sandeep Mudigonda, City University of New York, UTRC, New York, USA
Analysis of Impacts of Fresh Food Truck Distribution during COVID-19 in New York City

Teddy Forscher, UC Berkeley Department of Civil & Environmental Engineering, USA
Consumer shopping & shipping decisions, social isolation, and the digital divide as ecommerce use increases in light of COVID-19

Policy and planning

Catherine Gateri, Dept. of Construction & Real Estate Mgt, Kenyatta University, Kenya
An Overview of Planning for Urban Freight Transport in Nairobi Metropolitan Area

Forsorn Abdul-Azeez, Ibraheem School of Transport, Lagos State University, Nigeria
Strategies for managing freight flows in metropolitan Lagos

Mathieu Gardrat, LAET, Université de Lyon, France
Markov based mesoscopic simulation tool for urban freight: SIMTURB

John Jairo Posada Henao, Universidad Nacional de Colombia, Colombia
Analysis of road tolls and its influence on trucking costs

Diana Patricia, Moreno-Palacio, Universidad Nacional de Colombia, Colombia
Service trips generation modelling in a developing urban area

Cara Wang, Rensselaer Polytechnic Institute, New York State, USA
Principles and Strategies to Foster Freight-Efficient Land Uses

Fatai Yakeen, School of Transport, Lagos State University, Nigeria
Exploring Transport Demand Management Strategies for Sustainable Fuel Delivery Truck Operation in Lagos, Nigeria

Karin Fossheim, Institute of Transport Economics, Oslo, Norway
The political influence of cross-sector collaborative urban freight arenas on policymaking

Sowjanya Djulipala, Indian Institute of Technology Bombay, Mumbai, India
Modelling Freight Generation at Regional Level using Spatial Regression Methods

Sönke Behrends, SSPA, Sweden
The role of local authorities for the sustainable development of urban logistics

Adeline Heitz, CNAM-LIRSA, Paris, France
Urban logistics and land prices: new perspectives in the Paris Region
Carlos A. Gonzalez-Calderon, Universidad Nacional de Colombia, Colombia
Large urban freight zonal generators – an empirical investigation
Gabriela Giron-Valderrama, University of Washington, Urban Freight Lab, USA
Cracking the Freight Data Nut: Estimating Center City Inbound and Outbound Vehicle Volumes from Cordon Counts
Carlos Rivera, Rensselaer Polytechnic Institute, New York State, USA
An Approach to Understand the Influence of Land Use Policy on Freight Efficiency

Sustainable urban freight
Genevieve Giuliano, University of Southern California, USA
Heavy Duty Trucks: The Challenge of Getting to Zero
José Holguin-Veras, Rensselaer Polytechnic Institute, New York State, USA
Energy Efficient Logistics in the Albany- New York City Corridor
Mustafa Yilmaz, Sivas Cumhuriyet University, Turkey
An online communication tool (dashboard) for receiver-led consolidation (load pooling) processes: InterNodz
Ricardo Quintero-Giraldo, Universidad Nacional de Colombia, Colombia
Emission estimation in intercity trucking freight trips based on known data – case study: Colombia
Dennis Jose, Urban Mass Transit Company Limited (UMTC), Kochi, Kerala, India
Sustainable Supply Chain Management: Case of Kochi
Earath Sooraj, ICLEI, India
Multi-stakeholder approach to promote sustainable urban freight in Indian cities
Marzena Piotrowska, University of Westminster, UK
Goods deliveries to London schools: Improving efficiency and sustainability
Susanne Balm, Amsterdam University of Applied Sciences, The Netherlands
The University-community as catalyst for sustainable urban logistics: Experiences and results based on six years of action research in Amsterdam
Julia Amaral, Rensselaer Polytechnic Institute, New York State, USA
Assessment of Freight Accessibility in New York City: A Spatial-Temporal Approach
Johannes Gruber, DLR, Germany
Impact of Cargo Bike Testing Experience on Vehicle Perception and Purchase Decision: Results from an Experimental Field Test in Germany
Pär Meiling, Göteborgs Universitetet, Sweden
Challenges and risks in transportation of dangerous goods in urban environments
Seckin Ozkul, University of South Florida, USA
Analysis for Developing a Sustainable Biofuel Supply Chain between Urban Centers using Logistics Optimization Modelling
Walter Ploos van Amstel, Amsterdam University of Applied Sciences, The Netherlands
The potential of zero emission transport for field service engineers
Carlos A Granada-Munoz, Universidad Nacional de Colombia, Colombia
Making liveable cities with last-mile deliveries in developing economies using cargo bikes

Diana Ramirez-Rios, Rensselaer Polytechnic Institute, New York State, USA
Integrated Land-Use and Transportation Framework for Urban Sustainability

Matthew Reiter, UC Berkeley, USA
Quantifying the impact of last-mile delivery vehicles on urban congestion

Miguel Figliozzi, University of Portland, USA
A Model and Case Study of the Reliability of Time-Sensitive Drone Deliveries

Seyma Gunes, University of Washington, Urban Freight Lab, USA
Characteristics of a Successful Microhub: Taking Public and Private Stakeholders’ Perspective into Account

Astrid Bjørgen, SINTEF/NTNU, Norway
Planning for sustainable urban freight and the on-demand economy

Bram Kin, TNO, The Netherlands
Zero emission zones for urban freight transport in 2025 - What will it logistically entail?

Ibrahim Savadogoa, LAET, Université de Lyon, France
Evaluation of the potential environmental impacts of a low-emission zone

Hans Quak, TNO, The Netherlands
Zero emission city logistics for longer trips – including fast charging in parcel delivery operations

Claudia Andruetto, ITRL- KTH, Sweden
Categorization of Urban Freight Transport Concepts and Policies according to their Sustainability Performance

Giwa Olayiwola, School of Transport, Lagos State University, Nigeria
Assessment of Rail-Road Freights Competitiveness and Capacity for Effective Urban Supply Chain Distribution in Lagos Megacity, Nigeria

Silke Höhl, Frankfurt University of Applied Sciences, Germany
LastMileTram: Empirical Research on the Usage of a Cargo Tram – Case Study Frankfurt

Sylvester Hayker, The Technical University of Kenya, Kenya
Factors influencing Active Transport (AT) to school for 10–12 year-old children in Nairobi City County, Kenya

Ron van Duin, TU Delft, The Netherlands
Sharing in five: a disruptive urban freight transport analysis