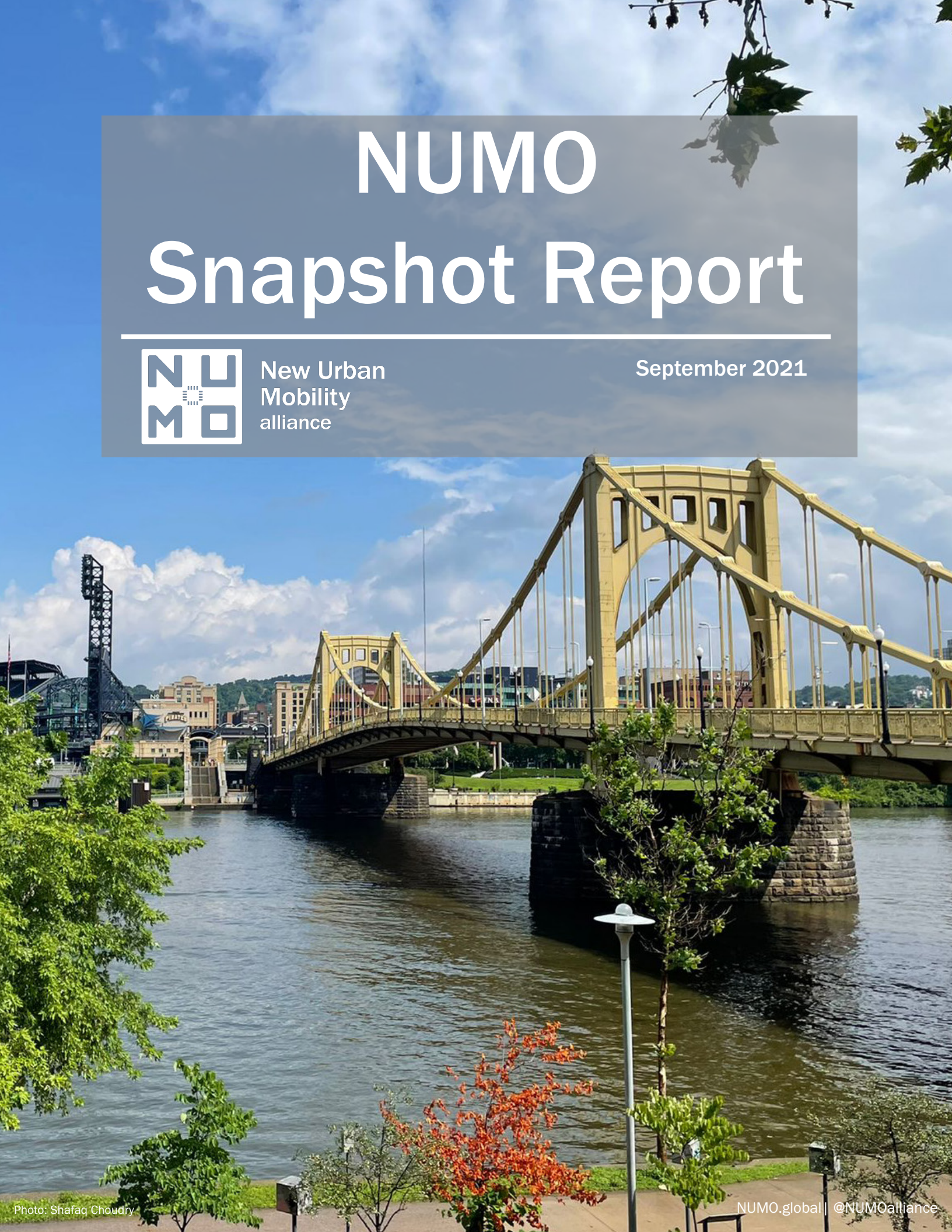
NUMO Snapshot Report

New Urban Mobility alliance

September 2021



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ALLIANCE WORK

ONGOING PILOTS:

- ***UPDATE***: Move PGH & Universal Basic Mobility pilot launch, Pittsburgh (led by Pittsburgh Department of Mobility & Infrastructure, with Healthy Ride, Port Authority & Pittsburgh Mobility Collective)
- ***UPDATE***: Detroit Bike Challenge & E-Bike Pilot Phase 2 (led by Detroit's Office of Mobility Innovation, with General Motors, Henry Ford Health System, Love to Ride, MoGo, NextEnergy, Shift Transit)
- ***NEW***: **San Antonio mobility hubs** (led by City of San Antonio, Urban Land Institute, VIA Metropolitan Transit)
- ***NEW***: **King County Metro FTA Transit Validation Program**

PREVIOUS PILOTS:

- Bogotá Septima redesign using Streetmix (led with City of Bogotá)
- **Washington, D.C.** Transportation Equity Network (led with Greater Greater Washington)
- **King County New Mobility & Equity Table** (led by Transportation Choices Coalition)
- Bogotá e-bicycles for healthcare workers (led with City of Bogotá, Despacio, MUVO)
- Bogotá recommendations for e-scooter deployment

PLATFORMS:

- ***NEW***: Urbanism Next Europe 2021 recordings (with Polis, Urbanism Next, TNO)
- ***NEW***: **Open-source edX course on urban mobility disruptions** (led with MIT)
- Micromobility Policy Atlas (with SUMC & WRI Cities)
- COVID Mobility Works (with HVT, Polis, TNO, UC Berkeley, TUMI, Urbanism Next & WEF)
- The NEXUS (led by Urbanism Next)
- NUMO New Mobility Atlas
- Resilience & Transportation webinar series recordings (with Euroclima+, GIZ, TUMI & WRI Cities)
- #MOVID19 Hackathon

WORKING GROUPS & COALITIONS:

- ***NEW***: **New Mobility Research Collaborative** (see page 12 for partners)
- ***NEW***: **Arrested Mobility Collaborative** (led with Charles T. Brown)
- ***NEW***: CHARGE Coalition (led by T4A)
- ***NEW***: Drive Electric Campaign (led by Climate-Works Foundation)
- **Mobility Data Privacy Principles** (led with OMF & NABSA)
- **Micromobility Behavior Nudging Research** (led with U Leeds, UC-Davis, Bird, Tier, Spin)
- **Ride-Hailing Behavior Nudging Research** (with U Leeds & Uber)

GUIDES:

- ***NEW***: COVID & the Curb (led by T4A)
- ***NEW***: Measuring Accessibility: Guidance for Practitioners (led by State Smart Transportation Initiative & T4A)
- ***NEW***: Policing & Enforcement in Transportation (led by TCC)
- Starting off Right: A Community-First New Mobility Playbook (led by CityMart)
- Micromobility & Your City: A Mobility Data Tool for Cities (led by Russ Brooks)
- Public transit safety recommendations
- T4A Shared Mobility Playbook, spanish translation
- Perfecting Policy with Pilots (led by Urbanism Next)
- **Urban Bikeway Design Guide 3.0** (led by NACTO)

TOOLS:

- ***NEW***: Video, slides & graphics to help you introduce the Shared Mobility Principles
- Mobility Metrics (led by SharedStreets)
- **MoMobility** in English & en Español
- Open-Source Mobility Graphics Library
- Periodic Table of Mobility
- Streetmix

MOVE PGH & UNIVERSAL BASIC MOBILITY IN PITTSBURGH

Concept art of a mobility hub, the building block of the Move PGH pilot. (Source: Move PGH)

Move PGH — a first of its kind initiative bringing together several mobility service providers — launched in Pittsburgh on July 9, 2021. Move PGH integrates transit and shared mobility in both physical and digital "mobility hubs," making multimodal travel in the city easy and convenient. Move PGH is the first initiative in the U.S. to connect traditional and emerging low-cost, shared transportation options into a single, easy-to-use system. Travelers can find a bus, bike, scooter, moped, car or shared ride using the Transit app or by visiting one of the 50 new mobility hubs throughout the city.

This new system of integrated services enables the second program, a "Universal Basic Mobility" pilot, which will provide up to 100 local low-income residents with monthly transit subscriptions and shared mobility services to address mobility insecurity. Both programs support the city's equity principles, which are centered on ensuring all Pittsburghers can easily access fresh food, afford basic transportation and travel safely without relying on a car.

"Transportation mobility is key to economic mobility and a major determinant in household health, education and welfare. In Pittsburgh, too many residents are one missed bus or one flat tire away from losing their job or missing a critical appointment," said Pittsburgh Mayor Bill Peduto at the launch event. "Universal Basic Mobility, using the services of Move PGH, will demonstrate that when people have a readily available transportation back-up plan, they are able to access more opportunities and climb the economic ladder."

MOVE PGH & UNIVERSAL BASIC MOBILITY IN PITTSBURGH (CONTINUED)

The initiative is the result of more than two years of work by a unique public-private-nonprofit partnership. Led by Pittsburgh's Department of Mobility and Infrastructure (DOMI), and built around the existing foundational systems of Port Authority public transit and Healthy Ride bike share, Move PGH integrates a coalition of existing and new "last-mile" service providers, including:

- A new fleet of shared, low-speed electric scooters provided by Spin
- Expanded car-share services provided by Zipcar
- A fleet of electric mopeds by local start-up Scoobi
- Carpool matching and commuting services facilitated through Waze Carpool
- Electric charging for e-scooters provided by Swiftmile
- Real time transit and mobility information on TransitScreens at mobility hubs
- Trip planning and most trip booking available through Transit

DOMI director Karina Ricks speaks during the launch event for Move PGH and the city's Universal Basic Mobility pilots. (Photo: Shafaq Choudry)

A mobility hub, part of the Move PGH pilot, on the ground in Pittsburgh, Pennsylvania. (Photo: Shafaq Choudry)

In addition to improving transportation flexibility and resiliency for the general public, the Move PGH and Universal Basic Mobility demonstration will specifically test whether reliable access to transit and a range of shared mobility options improves employment and health outcomes for low-income workers and their households.

DETROIT PILOT: PHASE 1 OUTCOMES & PHASE 2 LAUNCH

MoGo distributed electric bikes to Detroit essential workers during a pilot to expand access to safe, reliable and affordable mobility during the COVID-19 pandemic. (Photo: OMI)

2020 was a year of crisis. The COVID-19 virus impacted everyone and every place in the U.S. Among those most impacted were the essential service providers at the frontlines, including hospitals, pharmacies and grocery stores. Essential service employees themselves faced tremendous, daily challenges like a lack of reliable transportation to and from work.

In response to this crisis, the City of Detroit's Office of Mobility Innovation (OMI) partnered with NUMO and NextEnergy to launch a pilot to provide individually-leased electric bikes to employees of hospitals, nursing homes, grocery stores and pharmacies at a highly subsidized rate. Through this program, employees of the Henry Ford Health System, Detroit Medical Center, Whole Foods and others, were able to lease e-bikes for a 4.5-month period.

Survey results from the 2020 pilot include:

- 94% of pilot participants stated they would like to have access to the e-bikes either seasonally or year-round
- 82% said it was very convenient to have 24/7 access to an e-bike
- 70% stated that they would consider using the local bike-share program in the future
- 91% said they felt safe riding their bikes
- About 60% said they used their bike either as their main mode of transportation to get to work or to get to work when their main mode was not available
- Only one person used their e-bike exclusively for fun activities
- 41% said they got to work on time more frequently because they had access to an e-bike

DETROIT PILOT: PHASE 1 OUTCOMES & PHASE 2 LAUNCH (CONTINUED)

These results are particularly powerful given that nearly 70% of users said that they rarely or never used a bike to commute to work before the program.

Stay tuned for the release of the report in September 2021.

Essential health workers who received MoGo e-bikes to expand their access to safe, affordable mobility during COVID-19 response efforts in Detroit. (Photo: OMI)

Phase 2

With the launch of a second phase of the e-bike pilot in May 2021, the program partners are thinking bigger and bolder, aiming to fundamentally change the way Detroit employees and employers think about biking.

Together with the renewed leased e-bike program, the city launched the **Detroit Bike Challenge**. The goal of the challenge is to build a powerful constituency among employees and employers alike, one that sees biking not as mere recreation, but as an affordable, healthy and convenient means to access jobs.

Using the collaborative online platform developed by Love to Ride, Detroiters are encouraged to register for several key biking challenges, including month-long challenges in May and October, as well as a series of mini challenges throughout the summer months. Participants track their own mileage, share stories and photos of their biking adventures, create teams on behalf of their employers and may invite friends and family to join the Bike Challenge.

The Detroit BIke Challenge is hosted on the Love to Ride platform and runs through October 2021. (Source: Love to Ride)

NEW MOBILITY RESEARCH COLLABORATIVE

NUMO has launched the **New Mobility Research Collaborative** to align, expand and accelerate research on the topic of new mobility, and allow effective collaboration among private companies, city decision makers and researchers. The goal of the Collaborative is to connect private-sector funding opportunities and mobility data with research institutions to conduct research aimed at improving access to opportunity, jobs and daily needs, while also changing the conditions that make single-occupancy vehicle trips the default travel mode.

In the spring of 2021, members of the Collaborative came together for the first time to propose, discuss and vote on research projects to collectively fund and implement. The first project selected is to **develop a replicable, open-source methodology to measure multimodal access that includes real-world vehicle travel times and shared, on-demand and micromobility services**.

We believe multimodal access analyses that incorporate real-world vehicle travel times and a wider range of shared, on-demand and micromobility services will give a different, more nuanced and more representative estimate of urban access than existing methods and published datasets. We hypothesize that these methods will show investment in transit and micromobility provides greater increases to access than investment in car infrastructure. Private-sector members of the Collaborative will make data available for this project to help overcome critical data gaps. Ride-hail and shared micromobility company data offer an opportunity to measure the real-world performance of a car-based mobility system, incorporating actual traffic speeds and ride costs, while data on micromobility use can enhance understanding of understudied modes. Other members of the Collaborative will support research design and provide input based on on-the-ground experiences managing urban transportation.

The New Mobility Research Collaborative has launched to expand research and collaboration on the topic of new mobility. (Photo: City of St. Petersburg/Flickr)

Members of the New Mobility Research Collaborative include:

- Bird
- City of Los Angeles
- City of Minneapolis
- City of Pittsburgh
- Institute for Transportation & Development Policy
- North American Bikeshare Association
- Spin
- Shared-Use Mobility Center
- Transform
- Urban Institute
- Uber
- World Resources Institute

If you would like to learn more, please get in touch with sebastian@numo.global.

ARRESTED MOBILITY COLLABORATIVE

The **Arrested Mobility Collaborative** is an effort to examine how federal, state and local policies, rules and regulations have criminalized Black mobility in the U.S., essentially 'arresting' freedom of movement and access to opportunity.

The Collaborative will build on the **Arrested Mobility framework** developed by founder and principal of Equitable Cities, LLC, **Charles T. Brown**, who has joined NUMO as a senior advisor.

The framework asserts that Black people in the U.S. have historically been and are presently denied by legal and illegal authorities the inalienable right to move, to be moved or to simply exist in public space, resulting in adverse social, political, economic, environmental and health outcomes that are preventable yet remain widespread and intergenerational.

Recent evidence supporting the Arrested Mobility framework is devastating on its own, spanning from Black Americans being ticketed at disproportionate rates:

- In Jacksonville, Florida, **Black people received 55% of all pedestrian tickets** in the past five years, while only accounting for 29 percent of the population.
- In Chicago, **more than twice as many biking citations are being written in Black communities** than in white or Latino areas

To disproportionate pedestrian deaths:

- From 2010-2019, **Black Americans were struck and killed by drivers at a 82% higher rate** than White, non-Hispanic Americans.

To deadly violence:

- **Trayvon Martin** was killed while walking
- **Ahmaud Arbery** was killed while jogging
- **Dijon Kizzee** was killed while cycling

Our hypothesis is that a rigorous examination of federal, state and local policies, rules and regulations through the Arrested Mobility lens, and through comprehensive research demonstrating the validity of the framework, will support advocacy efforts and unearth pathways for collaboration toward systems change.

NUMO is currently setting up an advisory council for the Arrested Mobility Collaborative. *If you have any suggestions for people we should speak with or invite to the Collaborative, please let us know by emailing leanne@numo.global.*

SUPPORTING FLEET ELECTRIFICATION EFFORTS

NUMO is supporting allies in their efforts toward fleet electrification, including the Electric School Bus Initiative. (Photo: martinedoucet/iStock)

Through our fleet electrification work, we have glimpsed future paths for the deployment of electric vehicle charging infrastructure and the potential to exacerbate existing inequities.

A recent report from Mobilyze.ai found that fewer than 10% of people in the U.S. have easy access to an electric vehicle charging station, and those who do tend to be wealthy and white. Similarly, in California, 90% of charging infrastructure is on private land and associated with private off-street parking.

To achieve both our equity and climate ambitions, NUMO is working with partners and coalitions to advocate for federal funding to support the installation of shared charging infrastructure, including at multi-unit dwellings and workplaces to ensure access for drivers without dedicated, off-street parking at home.

Here are some examples of how NUMO is supporting allies in their efforts toward fleet electrification:

Electric School Bus Initiative

NUMO is supporting the World Resources Institute and partners to build greater momentum to electrify school buses across the U.S., with a goal of electrifying the entire fleet of school buses in the nation by 2030. The U.S. fleet of 480,000 mostly diesel-powered school buses is due for an overhaul that will provide kids with a healthier ride and help create jobs.

SUPPORTING FLEET ELECTRIFICATION EFFORTS (CONTINUED)

The Electric School Bus Initiative is focused on building partnerships across sectors to:

- Aggregate demand to drive mass procurement of electric buses
- Scale e-bus manufacturing and drive down unit costs
- Develop innovative utility and private-sector financing models, and support smart charging infrastructure deployment
- Unlock public funding and policy support for full electrification of school bus fleets
- Galvanize communities and stakeholders for an equitable and comprehensive shift toward e-buses by 2030

NUMO is providing support through our deep technical expertise in transitioning public fleets to electric vehicles and is helping to design a community-first approach for the initiative that focuses on frontline communities disproportionately impacted by air pollution and other existing inequities. ***Learn more*** *about the Electric School Bus Initiative.*

Identifying Pathways to Meet Climate Goals with Uber

NUMO is working with Uber to better understand how to accelerate the electrification of vehicles ride-hailing drivers use. Uber is providing NUMO with access to data that would otherwise be unavailable to explore the personal and policy barriers that ride-hailing drivers face to adopting electric vehicles, as well as to determine which cities have been successful in creating ride-hailing policies that result in CO2 emission reductions. *Stay tuned for the published report.*

Coalition Helping America Rebuild & Go Electric (CHARGE)

NUMO has joined a coalition of 37 organizations advocating for Congress and the Biden administration to enact smart, zero-emission transportation policies as a key part of the federal infrastructure package and surface transportation reauthorization bill. ***Learn more*** *about CHARGE.*

Drive Electric Campaign

NUMO has also joined the Drive Electric Campaign, which aims to address and overcome barriers to scaling zero-emission road transportation globally. The goal of the campaign is to reach a tipping point by 2025, where EVs outcompete polluting vehicles on the market, which will put the world on track for 100% vehicle electrification by 2050. ***Learn more*** *about the Drive Electric Campaign.*

NUMO & MIT EDX COURSE NOW AVAILABLE ON DEMAND

Leveraging Urban Mobility Disruptions to Create Better Cities is now available on demand through MIT's Open Learning Library. (Photo: Carlos F. Pardo)

Leveraging Urban Mobility Disruptions to Create Better Cities, the free online course developed by MIT and NUMO, is now available on MIT's **Open Learning Library**, which is accessible anytime and to anyone around the world!

Grounded in the goal of leveraging technology not for technology's sake, but to build sustainable, just and joyful cities, the course bridges the gap between the dynamic, on-the-ground reality brought on by technology innovation, and the academic content and practice needed to respond systemically. The course is informed by the **Shared Mobility Principles for Livable Cities** and is geared toward transportation and urban planning practitioners and students.

Bringing together professors, practitioners, entrepreneurs and public sector officials from Europe, Asia, Latin America, Africa and the U.S. to ensure a global perspective, the curriculum examines new mobility offerings within the context of urban planning, economics, geography, transportation systems engineering and data science. Topics covered include land use and urban form, new mobility business models, pricing, policy, technology, data and using behavioral economics to change travel behavior.

In the coming months, MIT and NUMO expect to launch an updated version of the course on the edX platform, this time with special emphasis on cities' actions to confront the mobility challenges of COVID-19 and lessons drawn from those responses.

Thank You

If you would like more information about engaging with NUMO, please contact **Jyot Chadha** (jyot@numo.global) or **Leanne Kaplan** (leanne@numo.global).

Follow us on Twitter **@NUMOalliance**.

About NUMO

NUMO is a global alliance that channels disruptions in urban transport to create cities where sustainable and just mobility is the new normal. Founded in 2019 as an outgrowth of the **Shared Mobility Principles for Livable Cities**, NUMO convenes diverse allies and leverages the momentum of significant revolutions in mobility to target urban issues — including equity, sustainability and accessibility — impacted by the shifting transportation landscape.

NUMO is focused on creating a truly multi-modal transportation system that effectively serves people who do not own cars and reduces the need for single-occupancy vehicle trips, and increasing affordable, convenient and equitable access to jobs and economic opportunity.

NUMO's core areas of work include on-the-ground **pilots** and experimentation with cities and transit agencies, new mobility **research**, the development of **tools** and resources, policy **advocacy** and **convening** stakeholders around contentious issues in transportation.

New Urban Mobility alliance