



ATL Regional Technology Committee

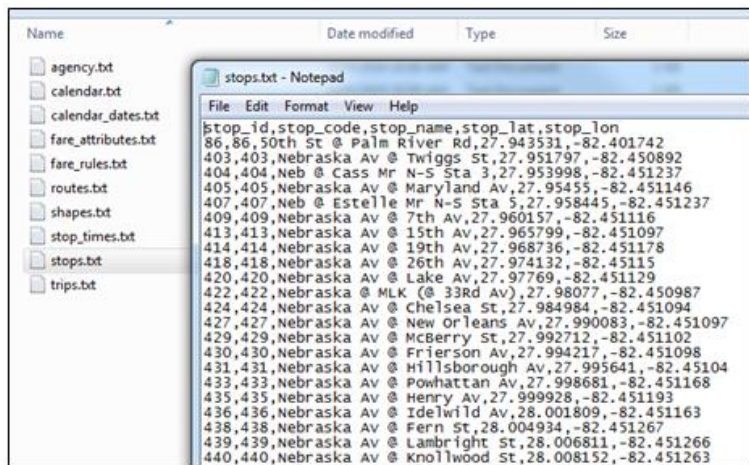
August 1, 2019



GTFS Procurement

ATL Regional Technology Committee

Lori Sand / August 1, 2019



Atlanta

← from Zoo Atlanta, 800 Cherokee Avenue SE, Atlanta, G...
to Peachtree Center Transit Station, 216 Peachtree St ...

2:51 PM - 3:18 PM (27 min)

832 > M Gold
2:54 PM from Cherokee Ave SE @ Augusta Ave SE
6 min every 30 min

SCHEDULE EXPLORER

- 2:51 PM ○ Zoo Atlanta
800 Cherokee Avenue SE, Atlanta, GA 30315
- Walk
About 3 min, 489 ft
- 2:54 PM ○ Cherokee Ave SE @ Augusta Ave SE
832 832 Grant Park - Zoo Atlanta - West End Stn
11 min (16 stops) · Stop ID: 116128
- 3:05 PM ○ West End Station
- Walk
About 3 min

Hartford, CT

← from Hartford, Connecticut
to UConn Health

2:31 PM - 3:16 PM (45 min)

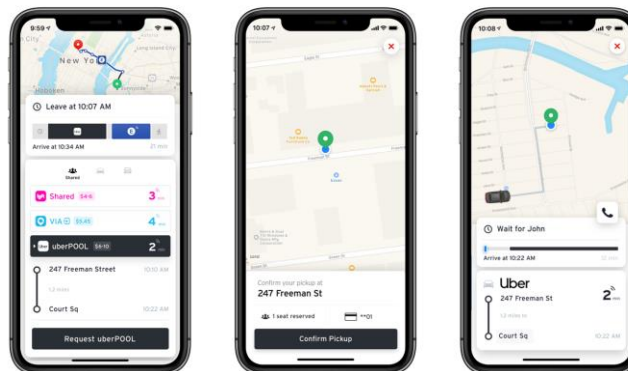
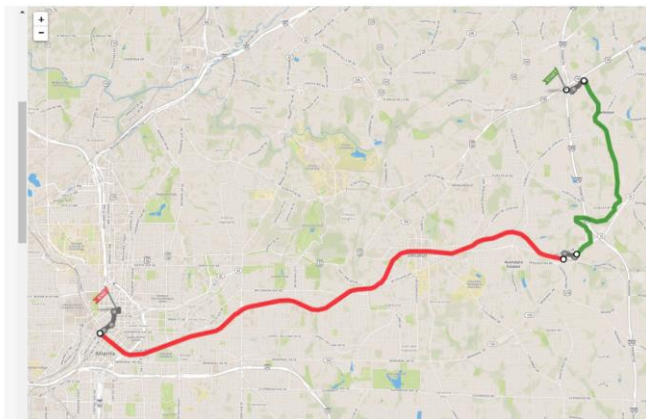
60-66
2:41 PM from Asylum St and Union Pl · 6 min late
10 min every 30 min

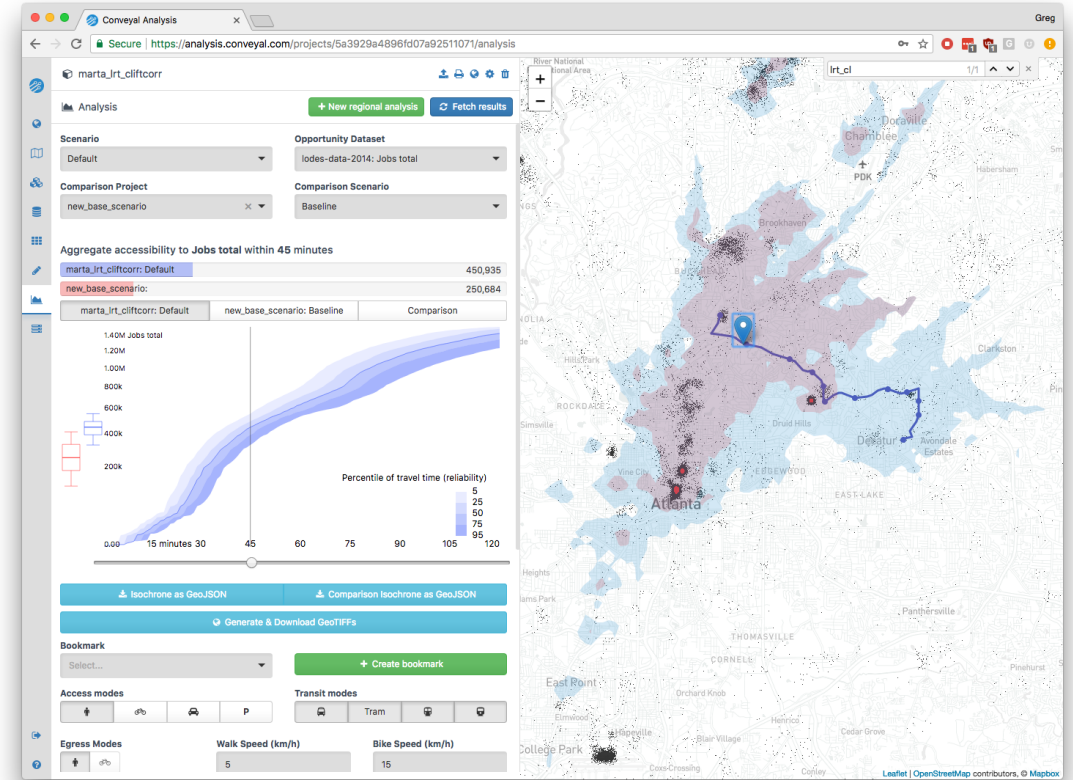
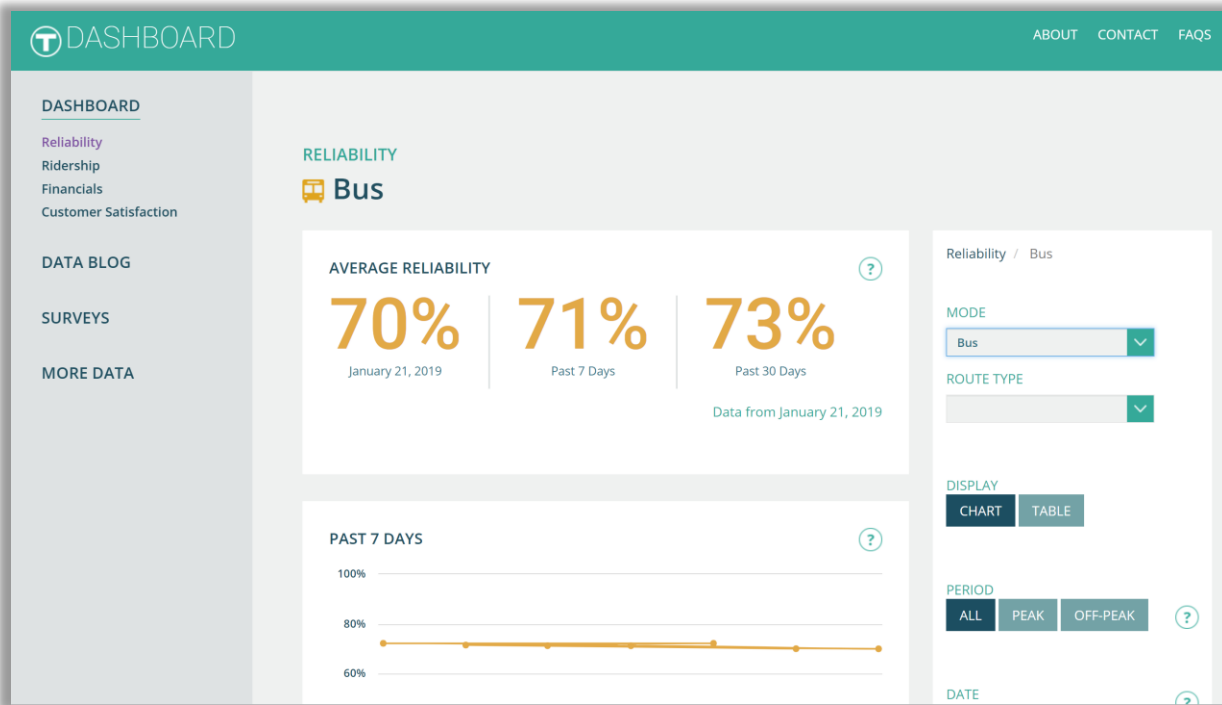
SCHEDULE EXPLORER

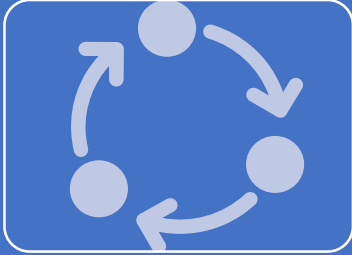
- 2:31 PM ○ Hartford
Connecticut
- Walk
About 10 min, 0.5 mi
- 2:35 PM ○ Asylum St and Union Pl
2:41 PM 60-66 66T - FARMINGTON AV- UCONN Health Ctr-Unionville-Tunxis Comm College
35 min (45 stops) · 6 min late
- 3:16 PM ○ Uconn Medical Ctr and Main Rd
- 3:16 PM ○ UConn Health
263 Farmington Ave, Farmington, CT 06030

Option 1: 1 hr, 7 min

2:00pm - 3:12pm
Walk to MONTREAL RD @ CLARKSTON INDUSTRIAL BLVD 6 min
Start on road heading NORTHEAST 291 feet
LEFT on to The Oaks 0.2 miles
LEFT on to Montreal Road 114 feet
Board bus 128 Clarkston / Northlake to MEMORIAL DR @ MOUNTAIN DR
2:12pm Depart: MONTREAL DR @ CLARKSTON INDUSTRIAL BLVD
Time in transit: 18 min
2:30pm Arrive: MEMORIAL DR @ MOUNTAIN DR
Walk to KENSINGTON STATION 6 min
Start on Memorial Drive heading SOUTHWEST 295 feet
RIGHT on to service road 0.2 miles

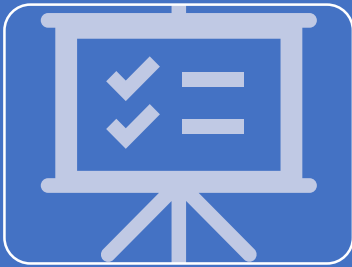






Task 1. Data and Workflow Assessment

- Assess the quality, accuracy, and reliability of each Transit Operator's current GTFS and GTFS real-time data
- On site assessment of current GTFS and GTFS real-time data flows, systems and tools, issues and causes of poor feed quality will be identified.



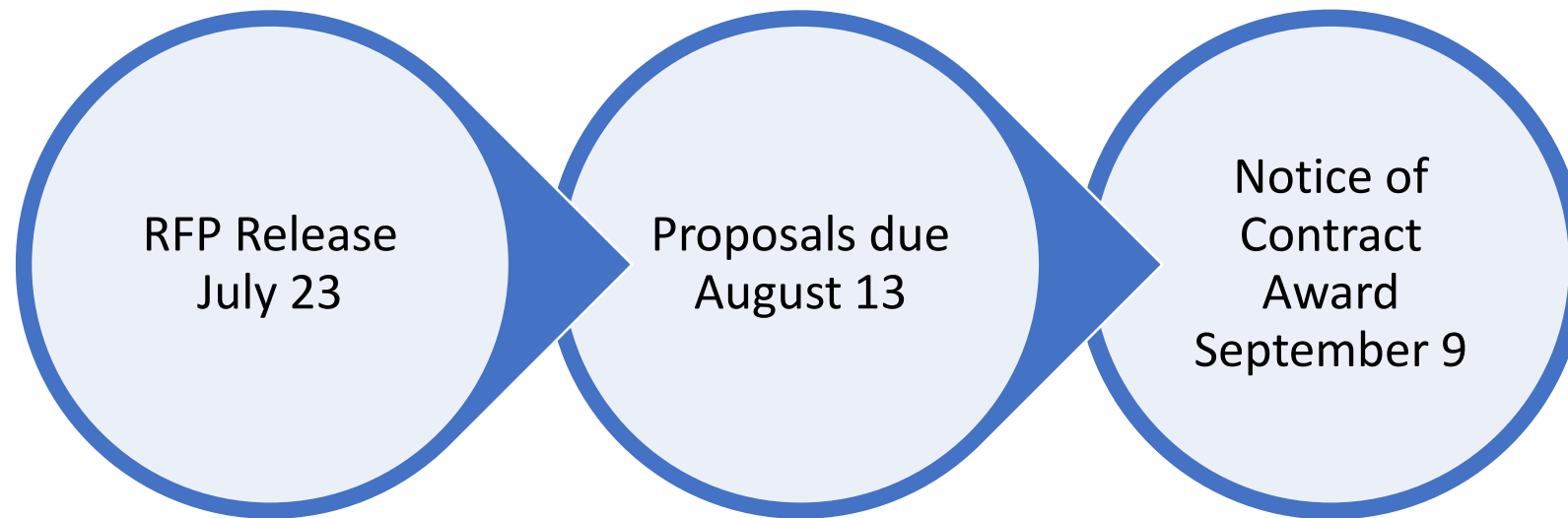
Task 2. Recommendations for Feed Improvement

- Work with stakeholders at the Transit Operators and with CAD/AVL and scheduling-run-cutting to improve data issues.
- Develop recommendations for adopting best practice GTFS and GTFS real-time standards, improving the data pipeline, and unifying regional feeds.



Task 3. Regional Policy Recommendations

- Establish regional transit data architectures and governance that will support the development of regional trip planning, regional real-time information, and MaaS forward solutions.
- Make policy recommendations for a regional transit data policy for consideration by the ATL Board.



Next Steps

- ▶ Move to Open Portal hosting for consumption by apps
- ▶ Contract for post-processing of CAD/AVL data and GTFS static feeds into GTFS Real-Time
- ▶ A second phase of technical assistance

Thank You.



Lori Sand



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Integrated Mobility Innovation (IMI) Demonstration Grant Opportunity
Regional Grant Application

ATL Regional Technology Committee

August 1, 2019



Integrated Mobility Innovation (IMI) Funding Opportunity

INTEGRATED MOBILITY INNOVATION (IMI) GRANT OPPORTUNITY

► Overall Program Goals:

- 1) Exploring new business approaches and emerging technology solutions that support transformational mobility services
- 2) Enabling communities to adopt innovative mobility solutions that enhance
- 3) Facilitating the widespread deployment of proven mobility solutions that foster expanded personal mobility

► Federal Funding Availability

- \$15 million nationally

► Application Due Date:

- August 6, 2019 11:59 p.m. EST

INTEGRATED MOBILITY INNOVATION (IMI) GRANT OPPORTUNITY

► **Strategic Partnerships:**

- Applicants must identify **one or more strategic project partner(s)** with a substantial interest and involvement in the project

► **Selection Criteria:**

- Project Impact and Outcomes
- Innovation
- Transferability and Technology Transfer
- Project Approach
- Team Capacity, Experience, and Commitment



Atlanta Region IMI Application Scope & Development

IMI APPLICATION – DEVELOPMENT & COORDINATION

- Coordinated regional process to develop project scope and grant application



- Regional coordination will continue until application submission on August 6th and throughout project if funding is awarded



INTEGRATED MOBILITY INNOVATION (IMI) SCOPE

► ADVANCING MOBILITY ON DEMAND (MOD):

- Develop an open-source and open-architecture journey planning app for web and mobile
- Allow for seamless trip planning and live navigation across all Atlanta region transit services
- Support multi-modal connections to/from public transit, private auto, ride-hailing, and micro-mobility
- Expand features to support various preferences including accessibility needs and language settings

INTEGRATED MOBILITY INNOVATION (IMI) SCOPE

► INTEGRATING FARE PAYMENT:

- Provide customers with full cost and fare information within the trip planning app
- Link to mobile fare payment solutions for regional public and private mobility services

► LEVERAGING BIG DATA:

- Develop a connected data environment that can be utilized by ATL and regional partners
- Utilize customer feedback and other opt-in data provided through the app for continuous improvement
- Better understand user preferences, travel choices, transfer behavior, and operational challenges
- Use data generated from the app along with other data to inform transit planning and operations



IMI Application Next Steps

IMI GRANT OPPORTUNITY – NEXT STEPS

▶ **ATL Regional Technology Committee Resolution:**

- Resolution will illustrate the Board's support and interest in the project being submitted for IMI Program funding

▶ **Continued Application Development**

- Regional project team will continue to coordinate on the development and finalization of application
- Application will undergo final review on August 5th with coordination between regional partners and private partner

▶ **Final Submission:**

- Application submission on August 6th

Thank You.



Jonathan Ravenelle



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E-Scooters Overview and Discussion

- a. Legislative Update – Michael McPherson
- b. Industry Overview – Nima Daivari



Dock-Free Mobility Systems

Subsidy-Free, sustainable transportation solutions

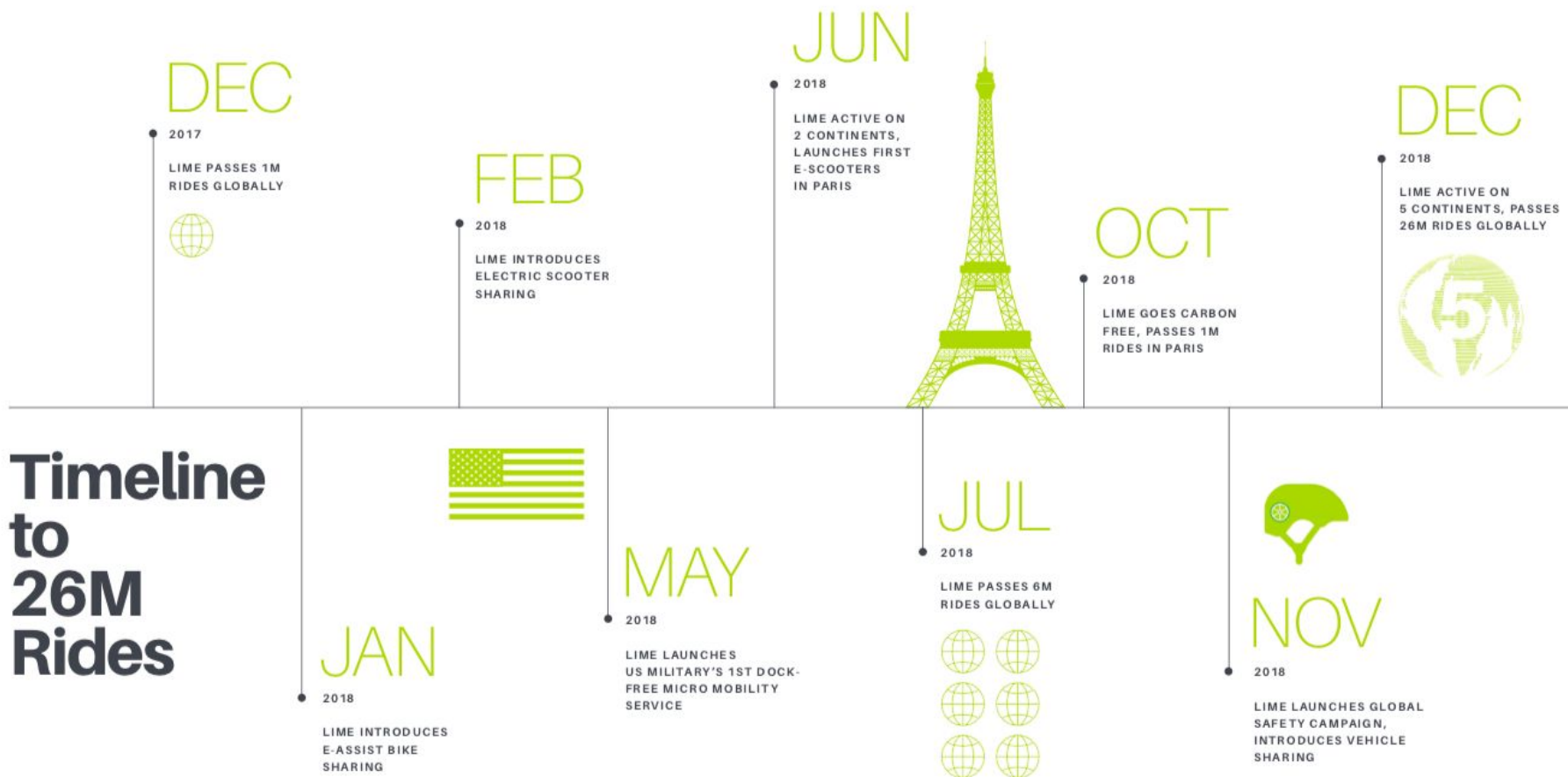


How Shared Mobility Systems are Changing the Way Cities Move

- More efficient, affordable and healthier transportation
- Complements existing transit options, reducing congestion and freeing up parking
- Supports more vibrant local economies
- Reduces pollution caused by short, inefficient local trips
- Provides optimum transportation to address the first/last mile void



Lime - 2018 Year in Review





LIME IS ACTIVE IN OVER

100 CITIES

ON

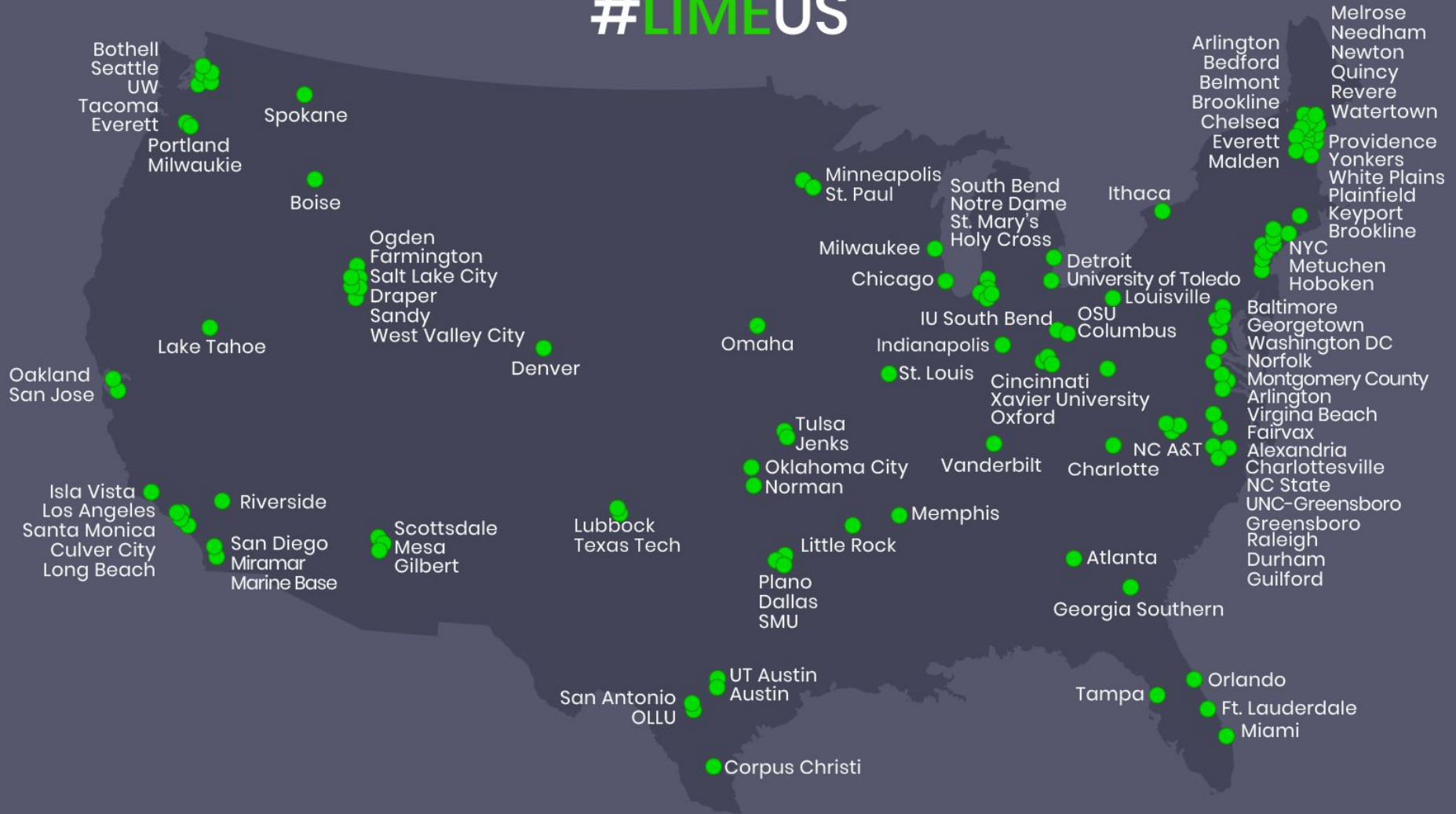
FIVE

CONTINENTS AROUND THE WORLD

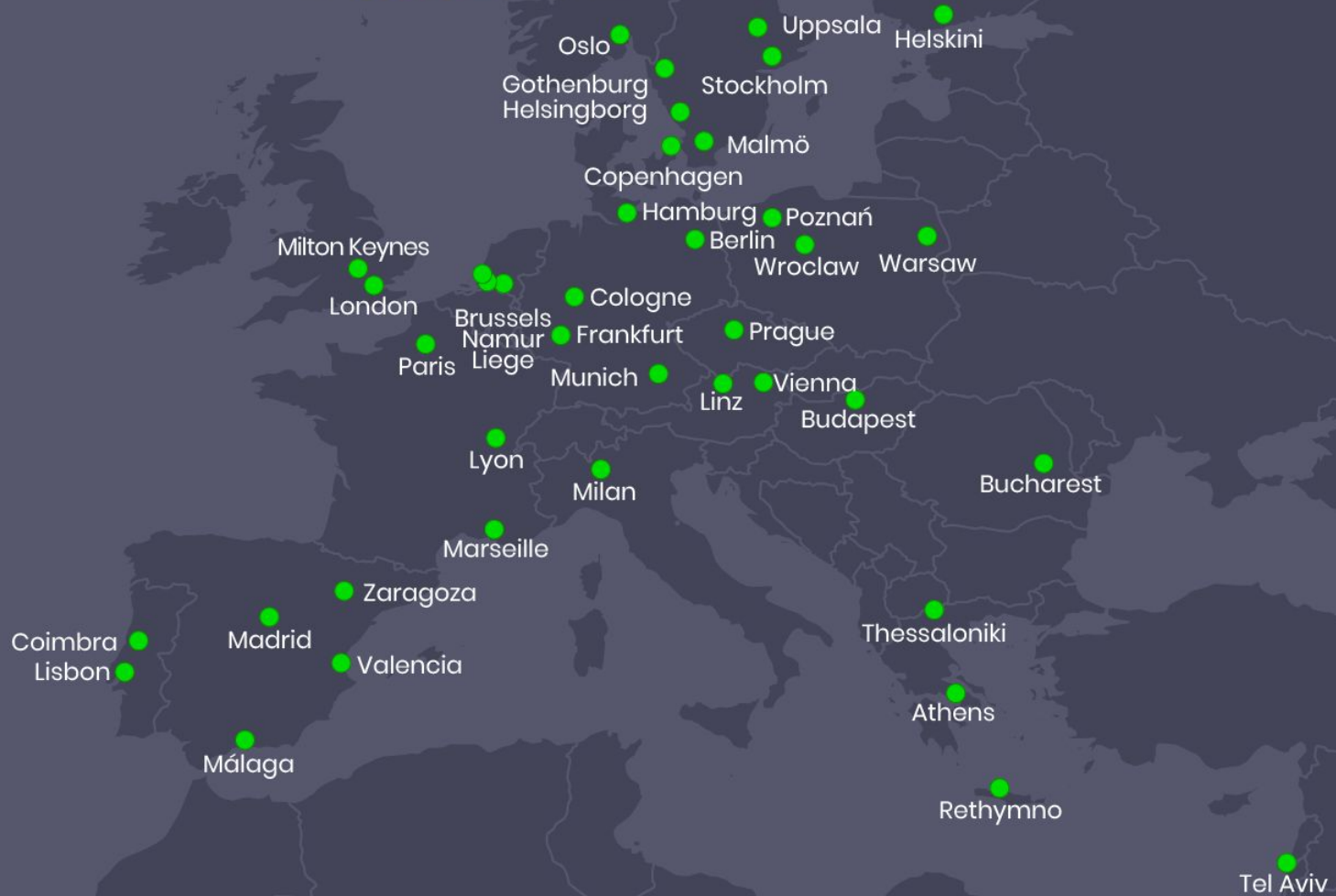
- 65,000,000 Total rides globally
- 20 million car miles & 8,000 metric tons of carbon emissions avoided
- 25% of Lime riders report an age of 37 or older
- >50% of Lime riders income <\$75,001 (Nat'l avg \$81,000)

- 33% female v. 28% cyclists
- 36% POCs v. 27% of U.S. POC
- 74% less than the cost of owning and operating a personal vehicle
 - \$28.18 vs. \$7.27

#LIMEUS



#LIMEEMEA



#LIMEOCEANIA

Brisbane

Auckland

Sydney

Christchurch

Dunedin



Atlanta At A Glance

Notable Lime Atlanta numbers:

- **1.1M+** rides/**342K+** riders
- **40%** of Lime riders in Atlanta reported commuting to/from work or school during their most recent trip
- **37%** of Lime riders in Atlanta displaced a car trip with their most recent Lime ride
- **35%** of Lime riders in Atlanta reported traveling to/from dining or entertainment during their most recent trip
- **17%** of Lime riders in Atlanta reported traveling to/from shopping or errands during their most recent trip



Notable COA DCP numbers:

- **~645,000** trips between 2/1/19 - 4/23/10
- **~11,500+** trips/day
- **~11,200** miles traveled per day
- **676,466** trips vs **2,579** complaints = **0.38% complaint rate** when comparing trips v. complaints
- **\$3.06** average cost per trip



Lime Access

We believe in mobility solutions that are shared, affordable and accessible

Lime Access members receive a **50%** discount on all Lime-S electric scooter rides

Our PayNearMe partnership allows riders to **use cash** to purchase their rides and a **text-to-unlock** feature means SMS can be used to unlock a bike or scooter.



Key Feedback For Dock-Free Systems



1. Vehicle Parking
2. Vehicle Riding & Pedestrian Safety
3. Data Sharing



1. Vehicle Parking



← Mandatory onboarding process educates first time users & remains prominently displayed anytime the app is open

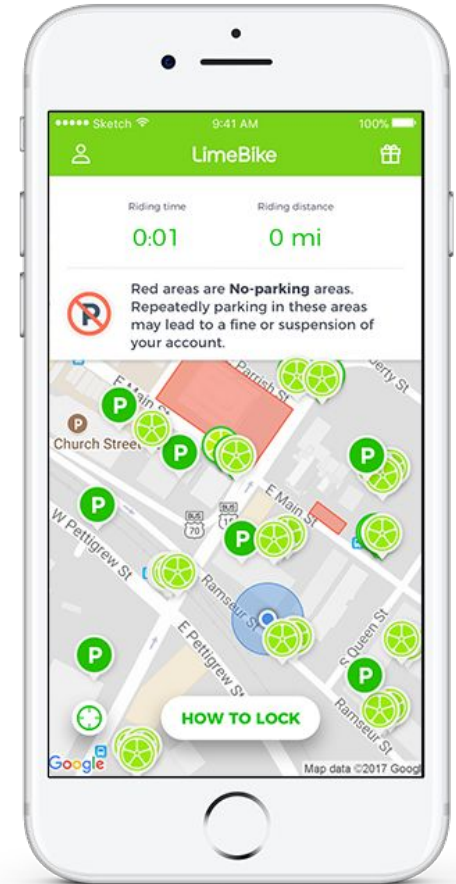
Geofencing parking areas that are off-limits to riders →



Available
Bikes &
Scooters



Recommended
Parking Spots





2. Sidewalk Riding & Pedestrian Safety

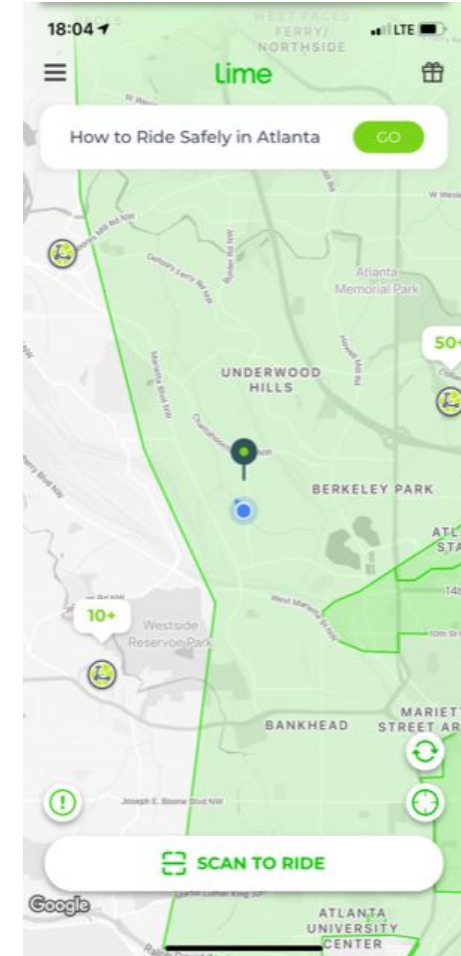
Unless required by local ordinances, operators emphatically discourage riding electric scooters on sidewalks.

Solutions include extensive education outreach such as in-app, online, and in-person.





Education & Outreach





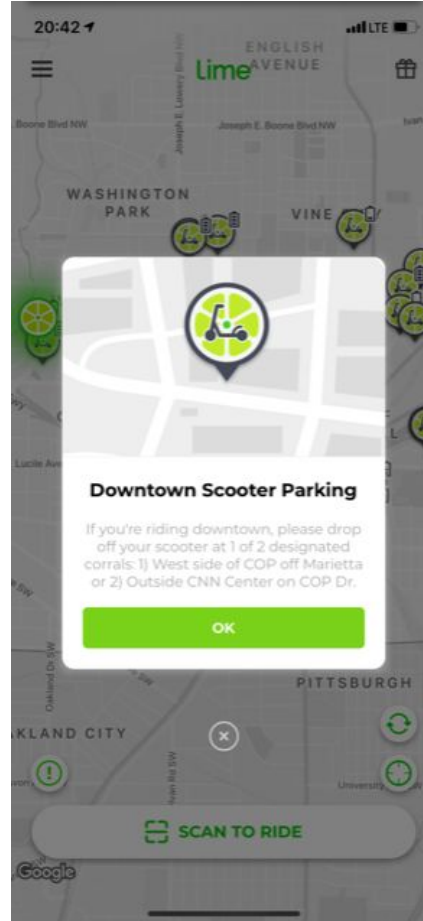
Education & Outreach



Ride Carefully

- ✓ wear a helmet
- ✓ ride defensively
- ✓ don't ride under the influence of drugs or alcohol
- ✓ stay in full control of your scooter and moderate your speed when riding downhill

OK



Rider Safety Classes

Beginning in March Lime will offer monthly 30 minutes classes in Atlanta and Decatur that will include the following -

1. Review rules and recommendations for safe riding
2. Provide an opportunity to ask questions
3. Include a free test ride on a Lime scooter

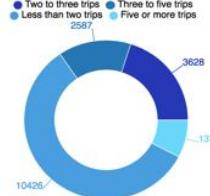
Please contact georgia@li.me for more information.



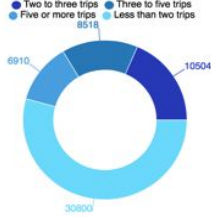
Cumulative Trips

# Rides	# Riders	Total Distance	Total Time	Median Distance/Trip	Median Time/Trip
342,121	127,176	445,899.1 mi	7,057,319 min	0.7 mi	9 min

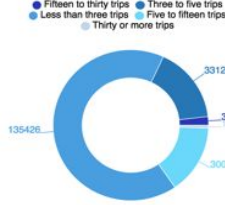
Past Week (7-Day) Rider Frequency



Past Month (30-Day) Rider Frequency



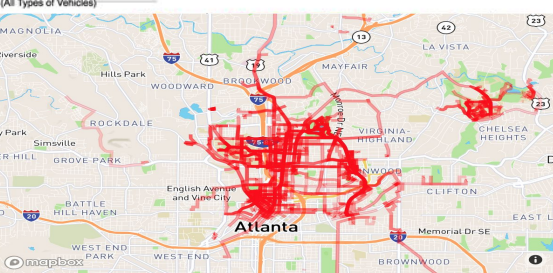
Lifetime Rider Frequency



Trips Trends



Ride Routes



Download Trip Data by Month

Pick any date within
the month
September 13th
[DOWNLOAD CSV](#)

3. Data Sharing

We use **data**
to make urban mobility
smarter

- Data transparency is a core component of Lime's approach to building trusted partnerships; we recently partnered with transportation data platform Remix to provide standardized data to LADOT
- Real-time Mobility Data Specification (MDS) feed gives cities visibility into current fleet
- Retrospective reporting on trip activity, safety, customer service, and operational metrics
- Data dashboard with insights available to track, visualize, and download fleet activity



A Commitment to our colors / Lime Green

Fully Committed to Sustainability

Launched October, 2018 Lime Green is our initiative to encompass the full range of our sustainability efforts.

This included establishing the industry's **first 100% carbon-free electric fleet**, the creation of an **internal Head of Sustainability**, and the addition of **former EPA Administrator and “climate czar”, Carol Browner, as Sustainability Advisor**.

Through our partnership with NativeEnergy, Lime is proud to be investing in new renewable energy projects as we lead the way forward in smart, sustainable micro mobility.

Atlanta Snapshot (June 2018 - July 2019)

- Over **195 metric tons** of CO₂ saved worldwide
- Over **484,520 miles** of driving avoided
- Over **22,000 gallons of gas** saved
- **476,154** car trips avoided



The ATL Subcommittee Request



1. Impact On Transit
2. Global Best Practices
3. GA State & City Regulations



1. Impact on Transit

Lime enables Mexico City riders to reduce their reliance on cars:

- On their most recent Lime rides, **33.3% of riders** used Lime rather than a car (personally owned, taxi, or ridehailing).
 - **64.2% of riders** used Lime to get to or from public transit within the last month.
 - Due to our riders' shift away from car trips, we estimate that Lime saved roughly **97 million grams of CO2** that would have otherwise been emitted (as of June 2019).
-

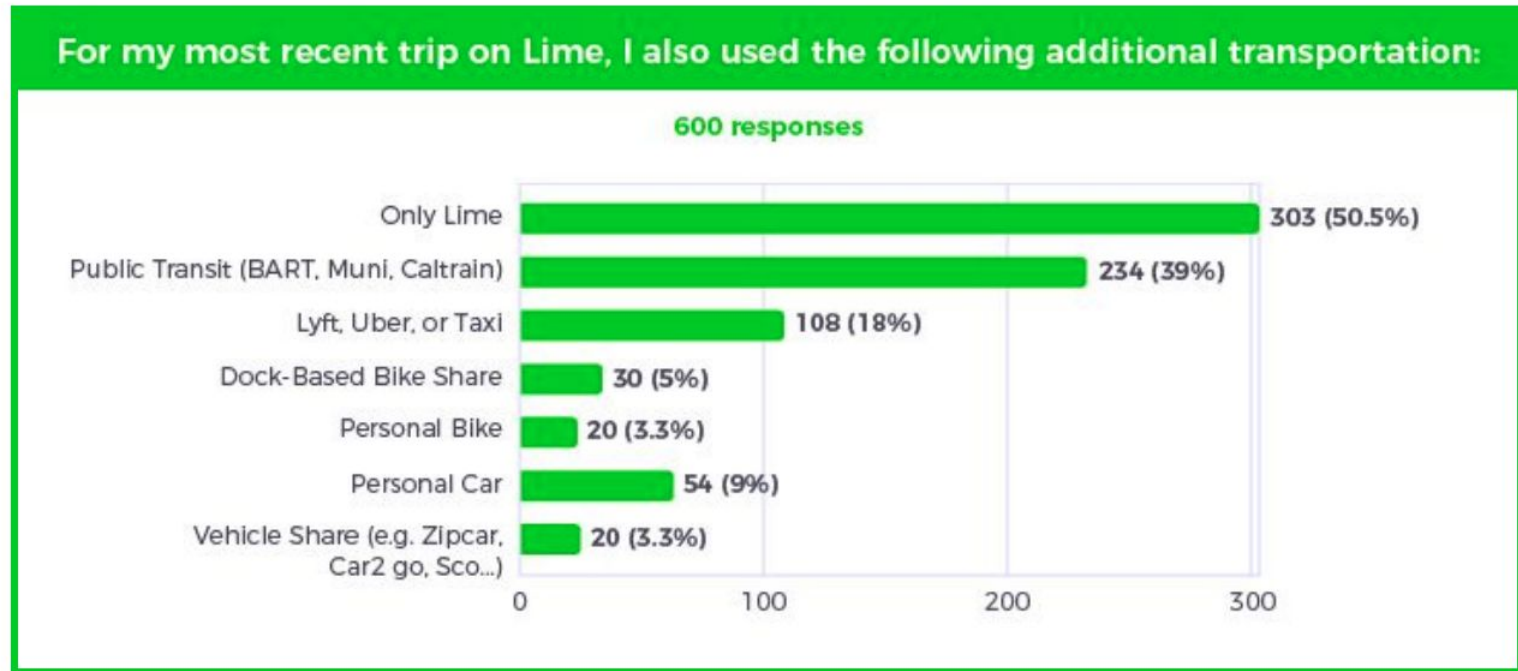
Lime helps Mexico City riders fulfill their everyday transportation needs. On their most recent Lime rides:

- **59.9% of riders** used Lime to commute to or from work or school.
- **21.1% of riders** used Lime to travel to or from dining or entertainment.



1. Impact on Transit

Consistent with our first mile/last mile use case, almost 40% of users are combining Lime scooters with public transit.



1. Impact on Transit



GOOGLE APPS TECH

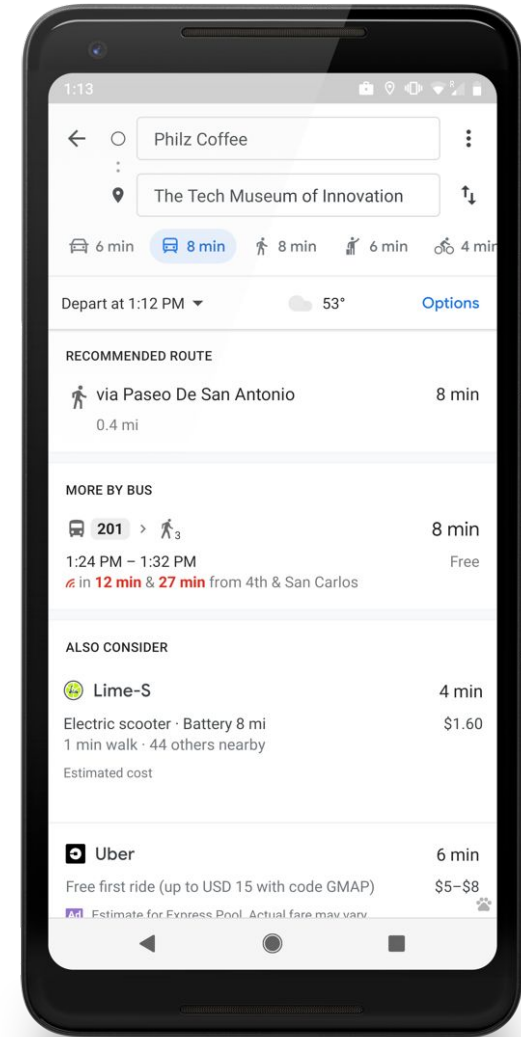
Google Maps can now direct you to Lime scooters and bikes

U.S.:

Arizona (Mesa, Scottsdale), Arkansas (Little Rock), California (Monterey, Mountain View, San Marcos, Santa Barbara), Colorado (Denver), Florida (Miami, Orlando), Georgia (Atlanta, Statesboro), Idaho (Boise), Indiana (Bloomington, South Bend), Kentucky (Louisville), Massachusetts (Arlington, Bedford, Belmont, Chelsea, Everett, Malden, Medford, Melrose, Milton, Needham, Newton, Revere, Waltham, Watertown, Winthrop), Michigan (Lansing), Nevada (Reno), Missouri (St. Louis), New Jersey (Keyport, Metuchen, Plainsfield), New York (Ithaca, Queens, Rockaways), North Carolina (Charlotte, Greensboro, Greenville, Jacksonville, Raleigh/Durham), Ohio (Columbus, Oxford), Oklahoma (Oklahoma City, Tulsa), Rhode Island (Providence), Tennessee (Memphis, Nashville), Texas (Corpus Christi, Lubbock), Utah (Salt Lake City), Virginia (Harrisonburg), Washington (Tacoma), Washington DC.

International:

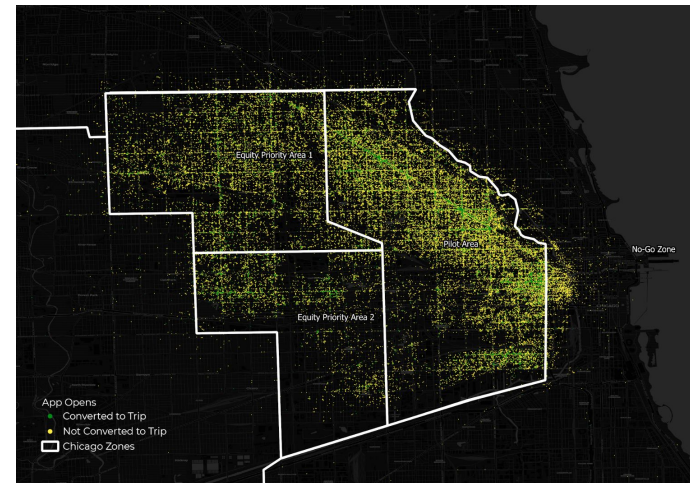
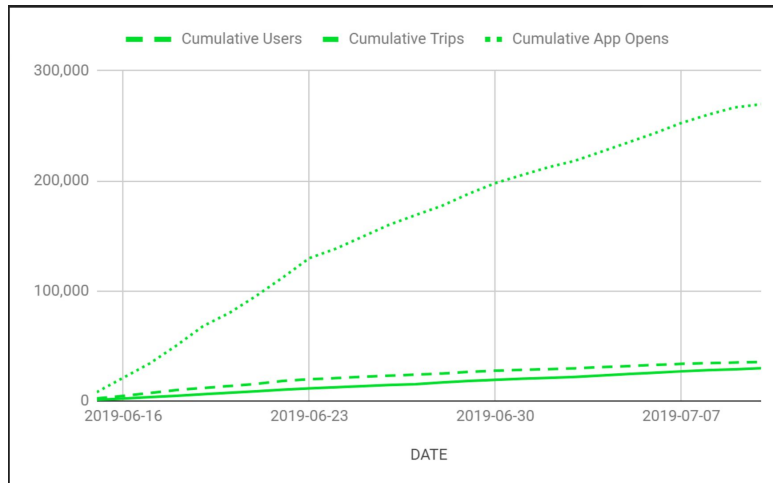
Brussels, Calgary, ChristChurch, London, Lyon, Madrid, Malaga, Malmö, Marseille, Mexico City, Milton Keynes, Oxford, Pamplona, Paris, Poznan, Stockholm, Sydney, Tel Aviv, Vienna, Warsaw, Wellington, Wrocław, Zaragoza





2. Global Best Practices

- **Number of Operators**
 - 3-5 operators
 - 2,000 vehicle minimum
 - Automatic mechanism for fleet increases at 2+ TVD
- **Fleet Sizing**
 - History of 25M+ trips globally
 - Service 10+ cities of 475,000+ residents
 - Monthly fleet review tied directly to actual performance metrics





2. Global Best Practices

- **Data**
 - Mobility Data Specification

Mobility Data Specification

Information Briefing

October 31, 2018

Introduction

Similar to a common language, the Mobility Data Specification (MDS) gives cities an elegant and cost effective tool to actively manage private mobility providers and the public right-of-way. MDS allows cities to collect valuable insights through a shared data vocabulary and to communicate directly with product companies in real time using code. Today, it enables cities to manage dockless scooters, bikes, taxis, and buses. Tomorrow, that could be autonomous cars, drones, and whatever else the future may hold.



2. Global Best Practices

Hardware

- Require speedometer
- Prohibit consumer grade scooters (e.g., [Ninebots](#)) from shared fleets
 - Electronic brakes are less reliable
 - Speed glitches are more likely
 - Poor durability and lifespan

The screenshot shows the Amazon product page for the Segway Ninebot ES2. The browser address bar shows the URL: https://www.amazon.com/Segway-Ninebot-Folding-Electric-Scooter/dp/B0779FW1FC/ref=sr_1_8?keywords=ninebot+segway&qid=1564438375&s=gateway&sr=8-8. The product title is "Segway Ninebot ES2 Folding Electric Kick Scooter, Silver". The price is \$589.00 with free shipping. The page includes a list of features, customer reviews, and a "Buy Now" button. The scooter is shown in a silver color with red LED lights on the deck.

Back to results

ninebot KickScooter **ES2**

by Segway

★ ★ ★ ★ ☆ 71 customer reviews | 51 answered questions

Price: **\$589.00** & **FREE Shipping**. [Details](#)

Get \$50 off instantly: Pay **\$589.00** \$539.00 upon approval for the Amazon Rewards Visa Card. No annual fee.

- **Ride Faster & Further:** With a more powerful motor of 300W compared with ES1, the Segway ES2 KickScooter can reach to 15 mph (25km/H), travel up to 15 miles (25 km) and accommodate a max load of 220 lbs. (100 kg).
- **Lightweight & Foldable:** With a total weight of 27.6 lbs (12.5 kg) and the one-click folding system, the Segway ES2 KickScooter can be carried with one hand, making it the perfect lightweight travel companion.
- **Safe & Comfortable Riding:** Front and rear wheel shock absorbers equipped with large solid tires provide maximum rider comfort. The mechanical and electrical anti-lock braking system ensures an efficient, responsive braking distance of just 13.1ft.
- **Superior Technology:** Segway ES2 KickScooter features an LED display, Bluetooth capabilities, cruise control, customizable ambient light colors, mobile app connectivity for additional security and firmware updates, and more.

New (1) from \$589.00 & **FREE shipping**. [Details](#)

PRO BIKE TOOL

Comfortable Handle, Controlled Acceleration

Easily adjust your speed with a simple push of your thumb and provide a great grip and control over your scooter.





2. Global Best Practices

- **Local Commitments**

- Address improperly parked vehicles within 3 hours
- 2+ on-the-ground full-time equivalent employees per market
- Low-income discount program, cash payment options, and non-smartphone access
- Minimum 1-year lease on local warehouse space within 25 miles of City limits
- Regular safety training events

- **Enforcement**

- Statutory fines for rider violations (e.g., sidewalk riding)
- Clear notice-and-cure protocol for improperly parked scooters



Violations can carry a fine up to \$1,000 and up to six months in jail. Atlanta Police tell CBS46, they do not set the fine amounts, but they doubt courts will issue severe punishments for scooter violations. Either way, the department wanted to launch an awareness campaign first.



2. Global Best Practices

Limited Provider Markets

- *Minneapolis/St. Paul* -4 providers each; electeds pleased with the program; demand & ridership are both successful & sustainable.
- *Los Angeles*- 5 selected operators are providing service across the community in a controlled and effective manner.
- *Portland* - 3 companies; fleet expansions for meeting program metrics and milestones.

Transitioning Markets

- *San Antonio* - Unlimited provider, uncapped model to 3 companies with a dynamic cap.
- *Paris* - Uncapped model to 3 permitted operators with a dynamic cap.
- *Nashville*- Uncapped model to no more than four providers.



3. GA State & City Regulations

Atlanta

- Open market capped at 2,000 vehicles per operator; moratorium on additional operators issued 7/25/19

Decatur

- Interim operating agreement while the City of Decatur drafts an ordinance

Statesboro

- Exclusive private agreement with Georgia Southern University

Georgia

- SR479- Senate Study Committee on Evaluating E-scooters and Other Innovative Mobility Options for Georgians
 - Sen. Steve Gooch
 - Sen. John Albers
 - Sen. Frank Ginn
 - Sen. Brandon Beach
 - Sen. Butch Miller

The Future





People self-organize



This is the Future, Today

Thank You

Nima Daivari

nima.daivari@li.me





ADJOURN