

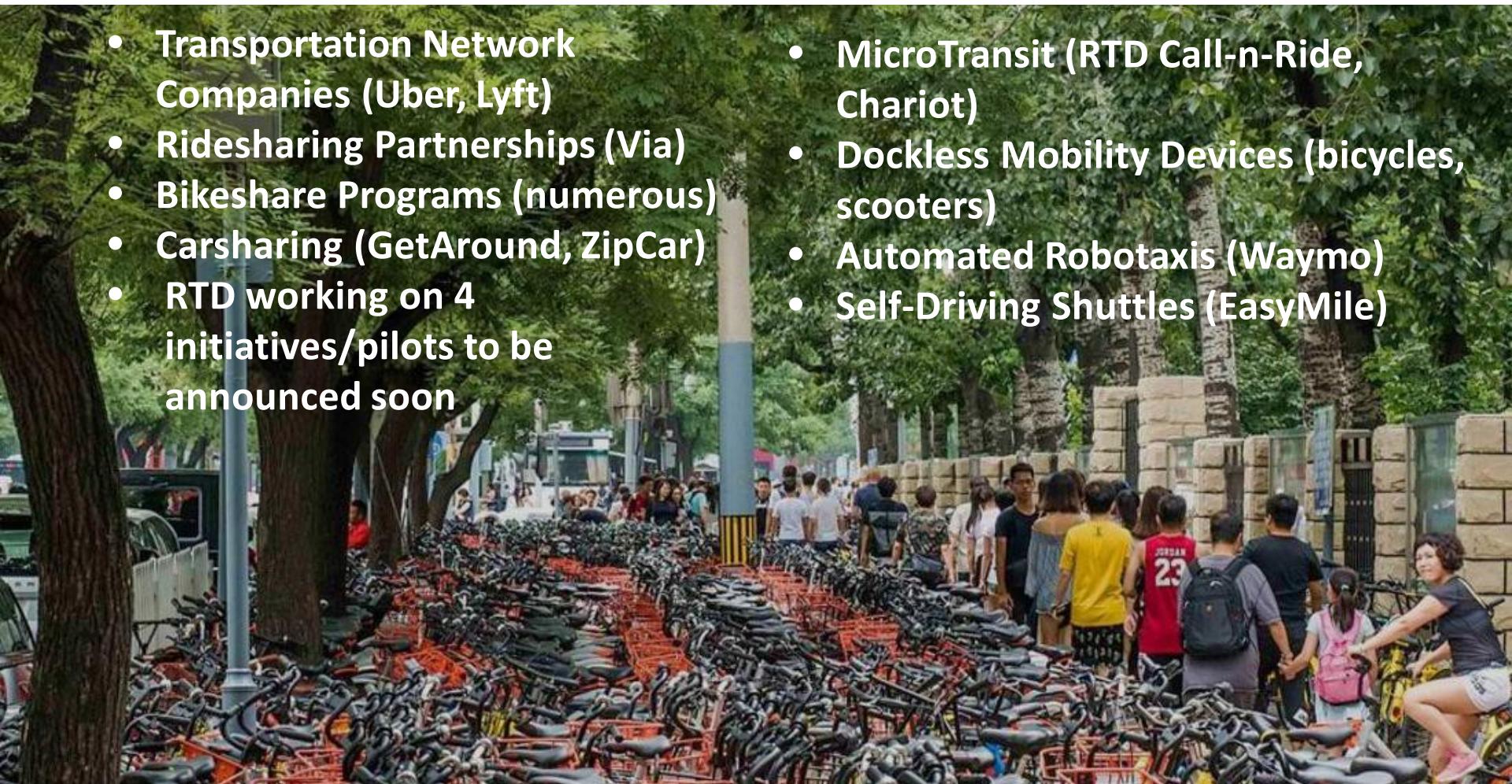
TRANSPORTATION TRANSFORMATION

# What is the Challenge & What is the RTD Role?

- 
- A multi-faceted challenge that includes both rapidly evolving mobility options, increased congestion and changing transit agency ridership trends

# Now available or coming soon:

- Transportation Network Companies (Uber, Lyft)
- Ridesharing Partnerships (Via)
- Bikeshare Programs (numerous)
- Carsharing (GetAround, ZipCar)
- RTD working on 4 initiatives/pilots to be announced soon
- MicroTransit (RTD Call-n-Ride, Chariot)
- Dockless Mobility Devices (bicycles, scooters)
- Automated Robotaxis (Waymo)
- Self-Driving Shuttles (EasyMile)



# The Questions?

- What will be sustainable
- What will contribute to the solution(s) and not contribute to congestion
- How do we address primary barriers around accessibility and equity
  - Physical
  - Technology/banking/credit
  - Affordability

# Transit Ridership US and RTD

- National Trends
  - Commuter rail, light rail, metros – typically increasing
  - Fixed route bus – typically decreasing
- RTD Trend
  - Commuter rail – up 10.6% year to date over 2017
  - Light rail – up 4.6% year to date over 2017
  - Fixed route bus – down 3.8% year to date over 2017
- Why bus decrease
  - Accessibility to automobile higher than ever before
  - Congestion and increased auto/bus trip time

# RTD as a Mobility Integrator - Lighthouse & Strategic Planner

Each region examined in this research is taking a different approach to addressing shared mobility in the planning process but the white paper provides four general models to conceptualize how this is occurring:

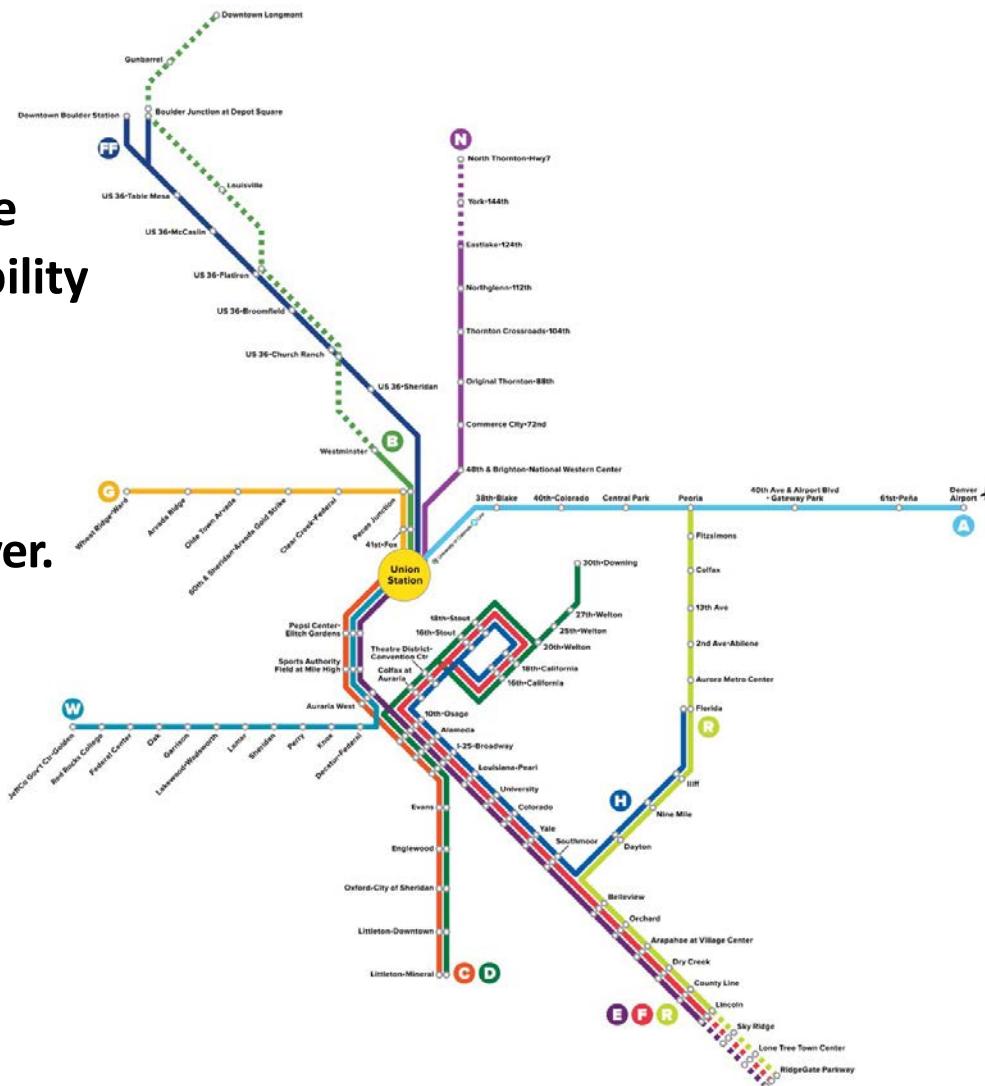
- **Lighthouse Model:** Leadership from an individual or agency to formulate an approach to integrating shared mobility which inspires others to follow a similar path
- **Strategic Model:** Focusing first on a high-level strategic vision intended to drive more specific planning efforts later
- **Operational Partnership Model:** Engaging with shared mobility companies to experiment and pilot innovative approaches to working together to address regional goals
- **Watch and Learn Model:** Focusing on research and thought leadership while seeking more information about how to incorporate shared mobility into planning processes

# The National View

- “It is well recognized that the landscape of surface transportation is in a state of transformational change and flux. This new mobility paradigm requires public transit to be inventive, innovative and bold in forging partnerships with new providers, adopting cutting-edge technologies and meeting customers’ evolving desire for more flexible, customized service.”  
- Paul Skoutelas, APTA President and CEO

# Our Vision

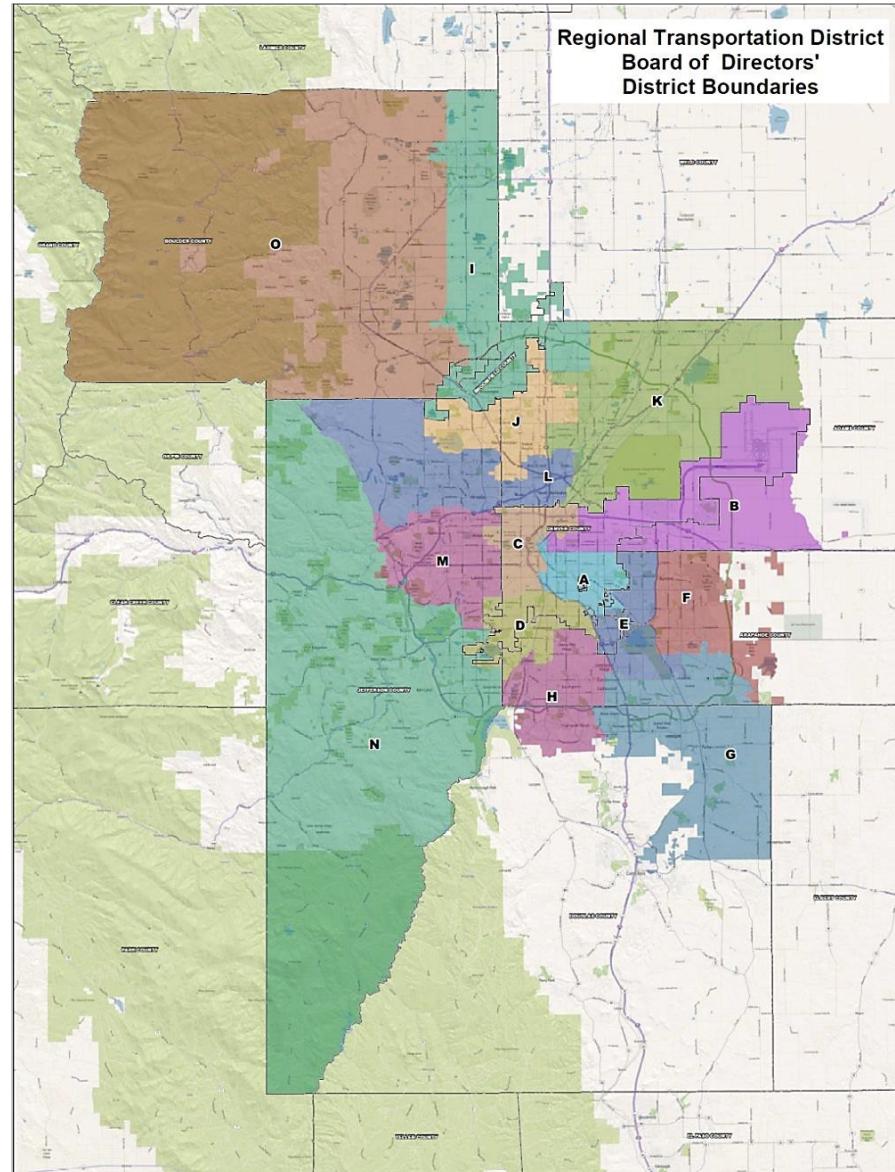
RTD's transit network serves as the backbone for regional shared mobility in metro Denver. We are uniquely positioned to maximize this investment and be the regional mobility integrator for metro Denver.



# Our Vision

**With RTD as a common denominator, we can build a system in which various service providers' work collaboratively to integrate “new mobility” services with traditional public transportation to allow the public to discover, pay for, and use these services for a seamless trip.**

**The future of mobility depends on public transportation and regional collaboration: practical, sustainable solutions that meet the needs of everyone in the Denver metro area.**



# RTD Mobility on Demand (MoD) RFI

- RTD released a Request for Information (RFI) in Fall 2017
- RTD received 24 responses under six categories:
  - Service delivery – potential use of dedicated and non-dedicated vehicles
  - Fixed-route shuttles
  - Trip planning
  - Integrated payment
  - MoD trip exchange
  - Branding



# Regional Mobility Working Group

RTD established a group of key staff from local jurisdictions, TMAs and other entities to start a regional dialogue on MaaS. Members include:



**DENVER**  
THE MILE HIGH CITY



City of Centennial

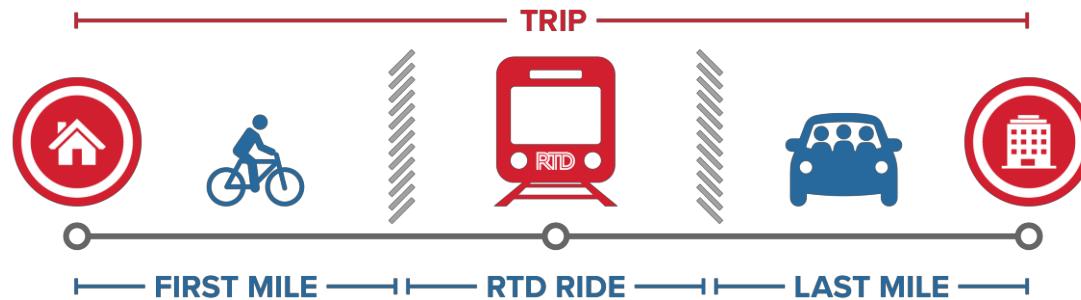


# Regional Mobility Working Group

- **Exchange** information with regional stakeholders on current and potential projects
- **Facilitate** a regional dialogue to determine public and private partnerships
- **Define** a strategy to implement regional Mobility as a Service pilot projects
- **Convene** local stakeholders and sustaining an ongoing dialogue
- **Explore** partnership opportunities
- **Pursue** demonstration projects
- **Expand** to include private sector & other stakeholders

# RTD Uniquely Positioned to Lead Regional Mobility Strategy

- Operates all modes including MicroTransit
- Award a contract for T2 Comprehensive Plan
- Collaborate on and implement pilots
  - First and last mile pilot concept
  - Alternative delivery approach pilot concepts



# T2 Comprehensive Plan

An ambitious, two-year project featuring extensive public outreach, engagement, and involvement that will cover:

- Comprehensive Operations Assessment/Systems Optimization
- Financial and Fiscal Sustainability
- Scenario Planning and System Expansion
- Mobility Expansion and Emerging Technologies
- Workforce of the Future

# Live Poll Results

## What should the public sector's role be in the new era of mobility?

0 8 6

Limited - regulation focused on public health, safety and welfare issues

 2 %

Moderate - regulation + limited partnerships with private providers to incentivize behavior to support public goals

 34 %

Major - regulation + partnerships + ensuring equity among public and private mobility options

 64 %

# Live Poll Results

**What do you feel are the biggest risks to the future of transit?**

072

funding

autonomous vehicles

inequity

transit

reliability

public

sprawl

political will

technology

ridership

accessibility

road capacity

mobility

travel rates

mindset

keeping promises

lack of innovation

low frequency

new misunderstanding

regional

service

privatization of modes

loss

irrelevance

cost

options

private

lack of regulation

congestion

inequity

teamwork

shiny

taxes

metro transportation

public perception

interface poor infrastructure

lack of congestion

object left behind by tech

convenience

paying

sov perception

equity

# Live Poll Results

**What future mobility outcomes matter most for the Denver Region? [pick your top 3]**

0 | 4 | 0

Affordability / Equitable Access



Minimize Congestion



Sustainable Land Use



Integrated Mobility



Protecting the Environment



# Live Poll Results

**What key areas should RTD focus on in the future? [pick 2]**

055

Increasing transit mode share



29 %

Optimizing bus and rail service



58 %

BRT and rapid transit expansion



27 %

Partnerships [both public and private]



42 %

New technology integration



42 %

# Live Poll Results

**What kinds of RTD services will benefit  
your community?**

050

more frequent service rides lanes park n rode live  
parking mobility convenient affordable routes  
modified racks neighborhoods  
park buses  
modal demand rail local people  
ring pnrs increase  
outer fast brt line  
lanes) regional  
**transit frequent service**  
**reliable bus services**  
rich ride share flexible multi  
options accessible on time transit  
more routes more frequent

# Closing Thoughts

Fall in love with the **problem**, not the solution.

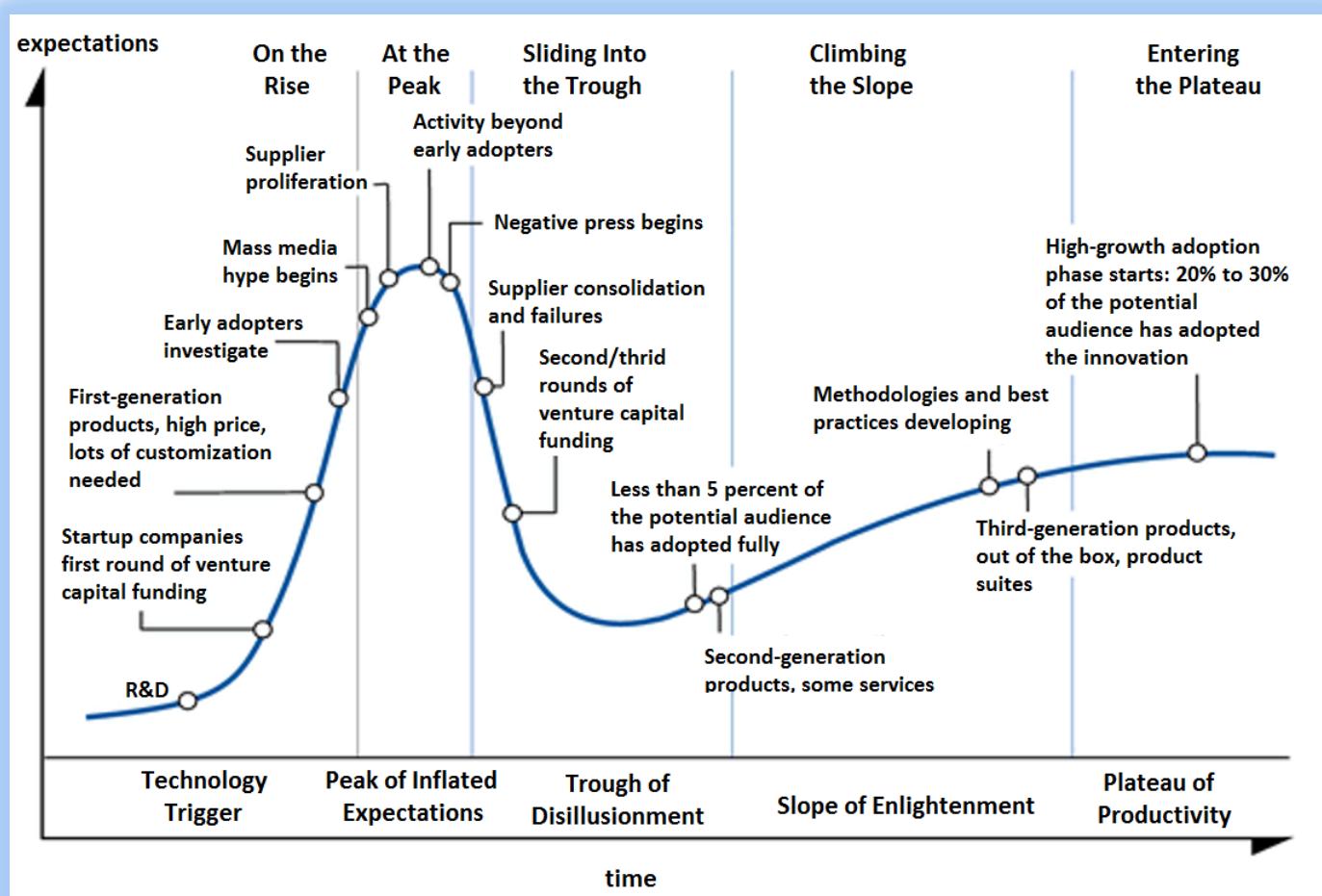
Mitch Silver



Source: NACTO

# Amara's Law

We tend to overestimate the effect of a technology in the short run and underestimate the effect in the long run.



Source: Gartner

# “New mobility delivers a fair and just transportation system for all” (Seattle)

**Our five plays are to:**

**PLAY 1:**

Ensure new mobility delivers a fair and just transportation system for all

**PLAY 2:**

Enable safer, more active, and people-first uses of the public right of way

**PLAY 3:**

Reorganize and retool SDOT to manage innovation and data

**PLAY 4:**

Build new information and data infrastructure so new services can  
“plug-and-play”

**PLAY 5:**

Anticipate, adapt to, and leverage innovative and disruptive transportation  
technologies

Source: New Mobility Playbook, Seattle Department of Transportation

# Which outcomes matter the most?

## Performance Measures and Outcomes

### Safety

- Reduction in truck incidents
- Freight throughput in Logistics District



SAFETY



#SMARTCOLUMBUS

## Performance Measures and Outcomes

### Enhanced Mobility

- Commuters using EAV
- Parking Satisfaction
- Travel Time Reliability
- Reduction in Congestion Index



MOBILITY



## Performance Measures and Outcomes

### Ladder of Opportunity

- Missed prenatal / pediatric visits
- Job turnover rate
- Residential complaints through 311



LADDERS OF OPPORTUNITY



#SMARTCOLUMBUS

## Performance Measures and Outcomes

### Address Climate Change

- Travel time to Loading Zone within Downtown District
- Adoption rate of EVs and charging stations



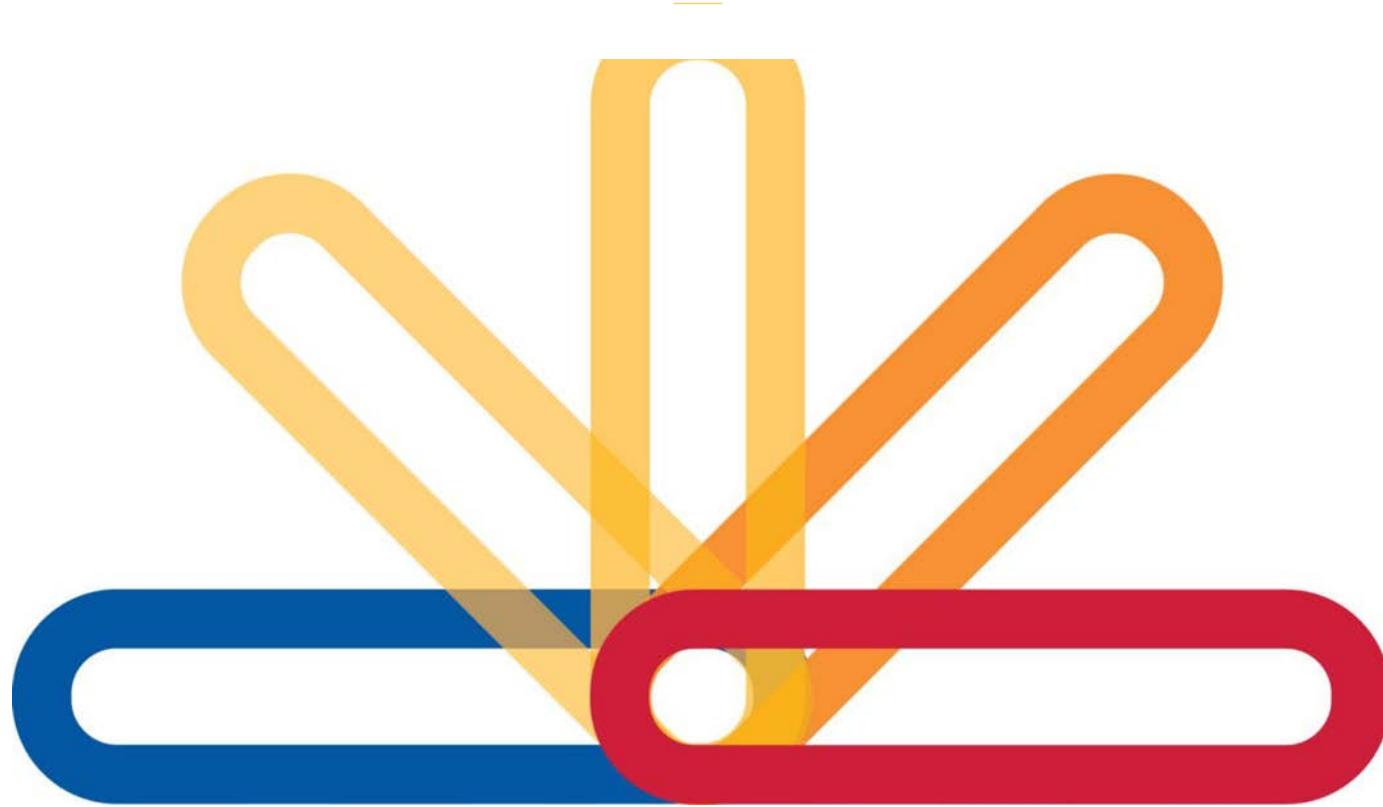
CLIMATE CHANGE



Source: Mid-Ohio Regional Planning Commission (Smart Columbus)

Transportation Transformation





TRANSPORTATION TRANSFORMATION