

# Mobility Choice Blueprint

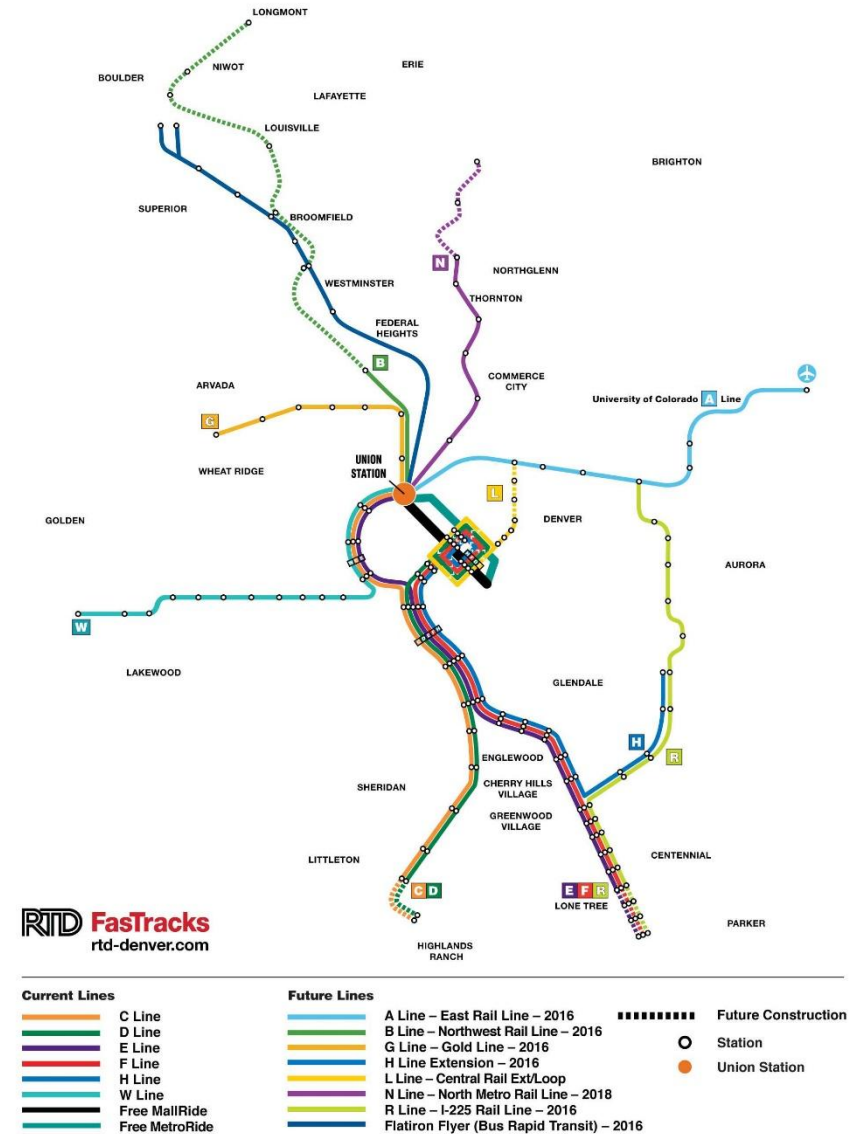
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**MAXIMIZE EXISTING INVESTMENTS IN OUR TRANSPORTATION SYSTEM  
BY LEVERAGING TECHNOLOGY TO PLAN FOR OUR FUTURE WORKFORCE  
AND EMPLOYER MOBILITY NEEDS AND INCREASE ECONOMIC  
OPPORTUNITIES AND QUALITY OF LIFE.**

# Mobility Choice: Why?

- 1 In 2016, the RTD will open
- US36 Flatiron Flyer
  - University of Colorado A Line
  - Westminster B Line
  - Arvada-Wheat Ridge G Line
  - Aurora R Line.

What is metro Denver's post-2016 mobility strategy?

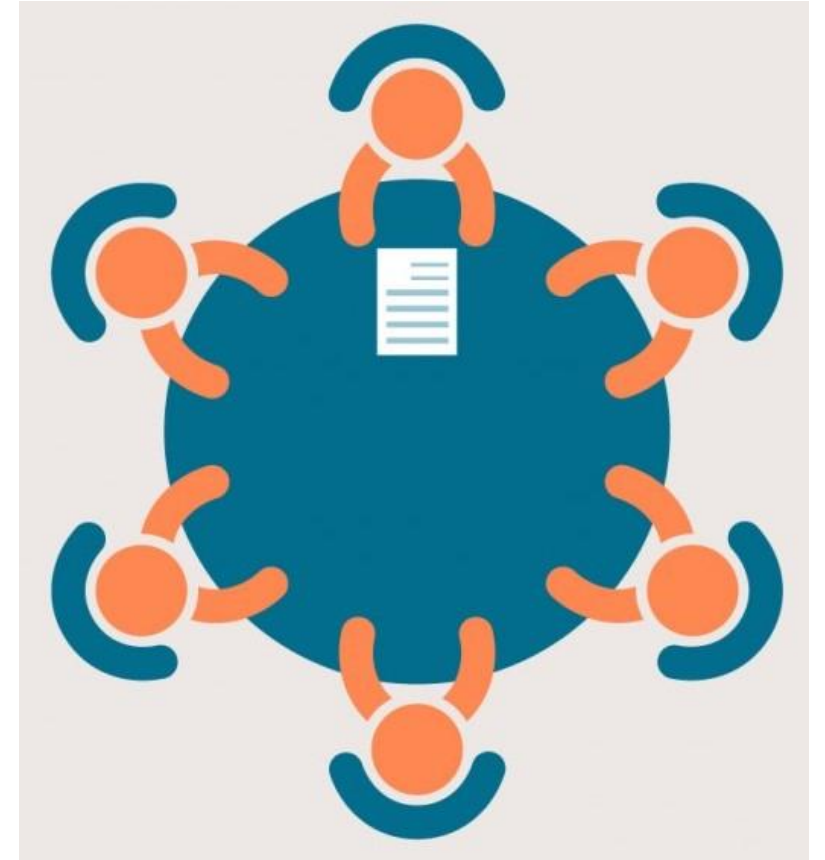


# Mobility Choice: Why?

- 2 More than ever before, mobility will be the critical element in keeping metro Denver economically healthy.

How do we engage private employers and their knowledge into the transportation planning process?

How can DRCOG, RTD and CDOT align for maximum effectiveness?



# Mobility Choice: Why?

- 3 Technology is rapidly changing urban mobility. Connected, shared, and automated mobility are changing the ways we travel.

How do we invest in mobility choices

- to avoid stranded investments and
- leverage new technology to create continued economic health and quality of life?



# Connected, Shared, Driverless Mobility Service

## ON DEMAND, “ROBO-TAXI” SERVICE

- More **free time** while commuting
- Less than **half the cost** of owning an automobile
- **Elimination of parking** lots and garages
- **Reduced need for auto ownership**
- Large opportunity for **electric vehicles/ reduced emissions**
- Mobility access for **disabled and senior** populations
- **Connected multi-modal** options



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## BUT.....

- More vehicle miles traveled?
- Displacement of transit?
- Access for low income population?
- More exurban development?



# How Are We Getting Ready For This Change?

6%

OF PLANS  
CONSIDER THE  
POTENTIAL EFFECT  
OF DRIVERLESS  
TECHNOLOGY

3%

OF PLANS TAKE INTO  
ACCOUNT PRIVATE  
TRANSPORTATION  
NETWORK COMPANIES  
(TNCS) SUCH AS UBER  
OR LYFT, DESPITE  
THE FACT THAT THEY  
OPERATE IN 60 OF THE  
68 MARKETS



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**“FORD TARGETS FULLY AUTONOMOUS VEHICLE FOR RIDE SHARING IN 2021”**

**“Uber to Put 100 Autonomous Volvo SUVs on Road in Pittsburgh ”**

**“GM Invests \$500 Million in Lyft, Plans System for Self-Driving Cars”**

**“Apple invests \$1 billion in Chinese ride-hailing service Didi Chuxing”**





# Disruptive Mobility Change



NYC—5<sup>TH</sup> Avenue 1900



# Disruptive Mobility Change



NYC—5<sup>TH</sup> Avenue 1900



NYC—5<sup>TH</sup> Avenue 1913



# Mobility Choice Blueprint

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- Mobility Choice Blueprint funded in partnership with private firms, DRCOG, RTD, and CDOT, each contributing \$500,000
- A strategic direction for metro Denver mobility investment
- Blueprint technical content developed by agency staff and consultant team
- Blueprint preparation October 2016-December 2017
- Extensive public engagement effort
- Mobility Choice Board for governance, leadership, and policy



# Can the professional services industry support this effort?

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RFI sent to 20 engineering and management consulting firms in April

10 firm responses received May 11:

- Yes, Together we can prepare a road map with change management.
- No region in the US has taken on this challenge.
- Public-private coordination in transportation is critical in this new era.
- Modifying public agency project investment trajectories will be difficult.
- Remember NYC horse manure—the cost of doing nothing is high.

Responding firms estimated Blueprint funding need of \$1.0-\$1.5 million



# Mobility Choice Organization

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**Don Hunt**

**Acting Managing Director**

**Board of Directors (13 members) –**

Private Sector

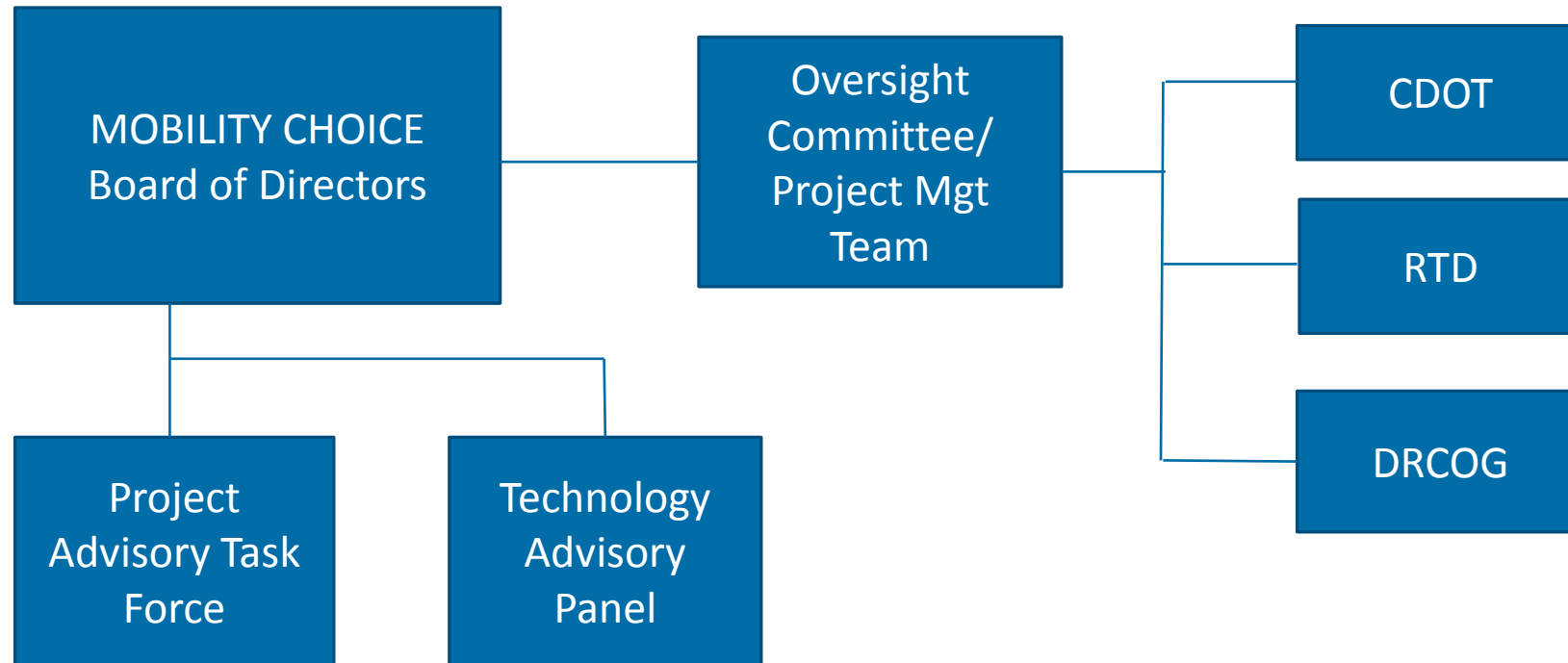
- Bruce Alexander, Vectra Bank
- Kelly Brough, Denver Metro Chamber
- Brian Oehler, IHS
- Aiden Mitchell, Arrow Electronics
- Jarrett Wendt, Panasonic
- Becca O'Brien Kuusinen, McKinsey
- Jin Alexander Tsuchiya, Kaiser Permanente
- Brendan McGuire, Vail Resorts

Public Sector

- Jennifer Schaufele, DRCOG
- Dave Genova, RTD
- Shailen Bhatt, CDOT
- Will Toor, Boulder County
- Jack Hilbert, Douglas County



# Mobility Choice Governance



# Success “Home Runs” Technology Enabled Mobility

- Reduce existing roadway congestion and **increase roadway system reliability** through the application of connected and big data technology (adaptive signal systems, managed motorways, connected corridors).
- Maximize utility of the RTD rail/BRT system investment by deploying connected, automated, and electric vehicle technology to provide **first mile/last mile on-demand mobility** to transit stations (Transportation Network Companies, eg Uber, Lyft, Bridj, and Bikeshare).
- Increase shared vehicle trips/increase vehicle occupancy through real-time mode information apps and **integrated electronic payment** (Moovel, Go Denver app, TriMet Mobile Ticket).



# Success “Home Runs” Transportation Investment Process

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- Identify how CDOT, RTD, DRCOG, and local transportation programs can **strategically align investments** and anticipate/utilize **new mobility technologies** for system efficiency.
- Develop a continuing mechanism for **private sector and employer participation** in the regional transportation planning and investment process.
- Develop policies and programs to ensure that **new mobility options** are available to and affordable for **disadvantaged, disabled, and senior communities**.





# Success “Home Runs” Transportation Investment Process

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- Year 2030 **recommendations** for:
  - Changes in transportation **policies**
  - Elimination of or additions to transportation **programs**
  - Reductions in or additions to transportation **projects**
- Identify where mobility program and project investments may use **existing funding** or require **new funding models** for success.



# A Closing Thought.....

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**"It is not our task to predict the future, but to be well prepared for it."**

Pericles, 5<sup>th</sup> Century B.C.,  
Athens

