

## MOBILITY CHOICE BLUEPRINT

#### UNIFIED VISION

A partnership of public and private organizations focused on changing how we move – and making the Denver metro area a better place to work and live.













**Collaboration** of CDOT, RTD, and DRCOG policies, programs, and transportation investments



Pilot projects with private sector partners and continued participation of the business community



Identifying potential for efficient technology-leveraged investments

#### MCB PROCESS OVERVIEW

#### Input

- Community Engagement
- Research
  - Existing Programs
  - Peer Cities
  - Transformational Technologies

#### **Blueprint Framework**

- Vision, Mission
- Themes, Problems, Outcomes
- Workshop Results
- Emerging Mobility Systems

#### **Scenario Evaluation**

- 2030 Existing Plans
- 2030 Trends
- 2030 Reactive
- 2030 Proactive

#### Preliminary & Final Recommendations

- Policy Changes
- Mobility Programs
- Funding Sources
- Governance Models
- Pilot Projects
- Next Steps

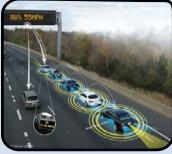
Spring	Summer	Fall



#### **EMERGING MOBILITY SYSTEMS**











## On-Demand Mobility

- Ridehailing
- Microtransit
- · Car Sharing
- · Bike sharing
- Mobility as a Service

## Traveler Information and Payment

- Mobile Transit App
- Intermodal Trip Planner App
- Mobile Travel Incentives App

#### Transportation Systems Optimization

- V2X
- Active Travel Demand Management
- Integrated Corridor Management
- Smart Parking

## Freight and Delivery

- Courier Services
- Driverless Delivery
- Drone Delivery
- 3D Printing

#### Vehicle Technology

- Autonomous Vehicles Levels 1-5
- · Electric Drive-train
- Battery Technology



#### **MOBILITY CHOICE BLUEPRINT VISION**

Our metropolitan region employs a full array of flexible technology and services to maximize access to mobility choices connecting people of all ages, incomes and abilities to jobs, recreation, healthcare, amenities and other daily activities, enhancing and protecting our quality of life now and in the future.



#### **MOBILITY CHOICE BLUEPRINT MISSION**

The metropolitan agencies will collaborate, in partnership with community, nonprofit, and private sector leaders, to carefully consider a range of effective and efficient solutions to the challenges and opportunities presented by emerging mobility technologies. We will provide recommendations to encourage the most effective technologies and approaches, maximizing mobility to meet our long-term goals of enhanced quality of life and increased economic vitality across the metropolitan region.



#### **THEMES**

- Safety
- Sustainable Mobility
- Funding and Finance
- HumanExperience

- Infrastructure
- Governance
- Data
- System Efficiency





Theme	Problem Statement	Outcome
Safety	Sanctity of life and safety from personal injury and property damage must remain the primary force for new technology operational designs.	Connected, autonomous, shared and electric mobility operate safely.
Sustainable Mobility	Technology enables a much more diverse set of mobility options for consumers resulting in different kinds of pressures for private-sector and public-sector services, facilities and infrastructure.	Emerging technology transportation options sustain the system long- term.
Infrastructure	New approaches and designs are needed to flexibly and proactively integrate technologies into transportation infrastructure.	New mobility systems integrate with existing and future infrastructure. New mobility systems cost no more than anticipated.



Theme	Problem Statement	Outcome
Human Experience	A disconnect could result between the human experience and transportation technology applications that left unchecked, could further disenfranchise mobility challenged populations and could disrupt our livable spaces.	Mobility systems improve community livability and quality of life.
Governance	A forum is lacking to plan for and implement regional infrastructure that supports technology advances.	Regional transportation agencies, the private sector, and nongovernmental organizations develop policies, programs, and pilot projects to deliver a preferred mobility future for the metropolitan region.

Theme	Problem Statement	Outcome
System	The regional network of transportation	Technology integration
Efficiency	services and facilities is based on the	improves reliability, lowers
	travel demands and trip-making	costs and reduces travel
	decisions of a different economic	times.
	environment that began more than 50	
	years ago. The existing system must be	
	made more efficient through	
	reasonable and coordinated	
	integration of appropriate technologies.	



Theme	Problem Statement	Outcome
Funding and Finance	Travel options enabled by technology will further increase the gap between needs and available funds.	New funding and financing of mobility systems improves equity and use of public resources.
Data	Definition of the "right data" that can be utilized to optimize system operations and performance is important to all public sector and private sector entities. Management and security of that data, and the ability to share information among suppliers of facilities and services to enhance and optimize transportation system performance is a critical need.	Sources and uses of data that enable, monitor, manage and modify mobility systems are protected, shared and preserved across all modes of travel and throughout all parts of the region and state.

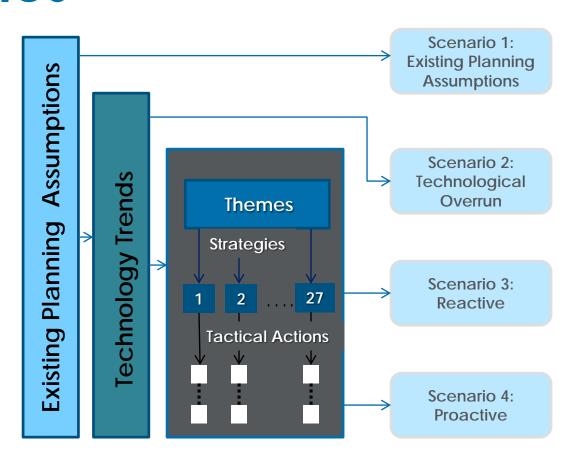


#### THEMES, STRATEGIES AND ACTIONS

	Themes	Strategies	Actions
Workshop Outputs	7	27	123
Refinement	8	15	34



# PROCESS FLOW FOR THE DEVELOPMENT OF SCENARIOS





- Create PPPs to establish transit service in underserved areas to reduce service gaps and partner with:
  - Transportation Network Companies (TNCs)
  - Micro-transit services
  - Mobility-as-a-Service providers
- Consider connections to senior housing, mobilitydisadvantaged neighborhoods, healthcare facilities and similar locations

- Type: Program
- Difficulty: Medium
- Investment: \$6-15M
- Transects: Urban/Suburban
- Time to Implement: < 1 Year



- Establish a Mobility Technology Clearinghouse:
  - Coordinate Pilot Projects throughout the Region
  - Pool funding
  - Coordinate Agency staff
  - Provide single point of contact
  - Coordinate technology in CIP projects
  - Employ process to prioritize corridors
  - Facilitate partnerships
  - Monitor performance and cost tracking

Type: Program

Difficulty: Easy

Investment: < \$0.5 M</li>

Transects: All/Region

• Time to Implement: < 1 Year



- Establish a Regional Data Platform that will:
  - Consolidate multiagency data into single repository with joint access
  - Establish policy standards for data sharing for interoperability and security
  - Create policy(s) to ensure inter-operability of infrastructure and software
  - Promote open and well-documented APIs

Type: Program

• Difficulty: Medium

• Investment: \$ 2 - 5 M

Transects: All/Region

• Time to Implement: < 1 Year</p>



 Fund and engage in Pre-development activities with affected cities to begin implementation of an Integrated Corridor Management (ICM) Pilot Project in a key metro corridor.

• Type: Pilot Project

• Difficulty: Medium

• Investment: \$2 - 5 M

Transects: Urban/Suburban

• Time to Implement: 1-3 Years

- o ICM combines two primary concepts:
  - Active Management
  - Modal Integration of Institutional, Operational and Technical elements



# PROCESS FLOW FOR THE DEVELOPMENT OF SCENARIOS

