Public Participation Task Force
2.28.2017

CONNECTIONS 2045

updating

Greater Philadelphia's Long-Range Plan

DELAWARE VALLEY dvrpc REGIONAL PLANNING COMMISSION

#makingconnections | @dvrpc

WELCOME

- Long-Range Plan Background & Development
- Future Forces, Sustainable Transportation Actions, & Networking Transportation
- Stakeholder Feedback & Next Steps

Long-Range Plan
Background & Development

Long-Range Plan

CONNECTIONS 2040

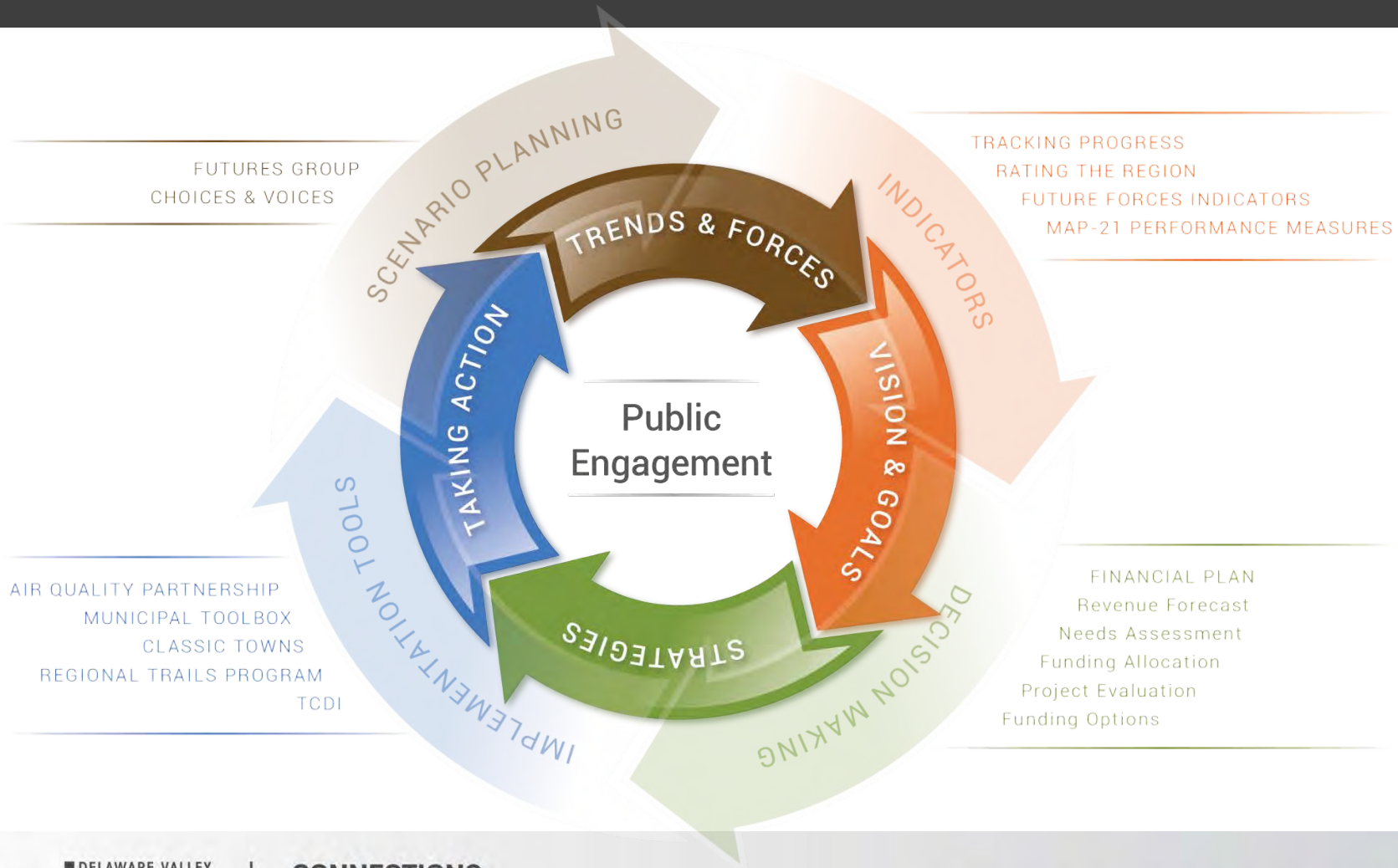
PLAN FOR GREATER PHILADELPHIA

fostering sustainability, equity and innovation

CONNECTIONS 2045

Plan for Greater Philadelphia

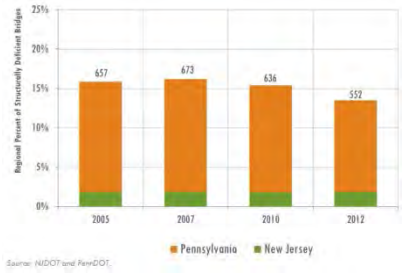
DVRPC Long-Range Planning



REGIONAL INDICATORS - *How Are We Doing?*

- RATING THE REGION
  - Comparison to peer regions
  - Identifies regional strengths & weaknesses

STATE BRIDGES GREATER THAN 8' IN DEFICIENT CONDITION



- TRACKING PROGRESS
  - Measure attainment of Plan goals
  - Prioritize key issues for Plan update
  - Groundwork for assessing needs

Visioning – Spring 2016 Workshops

Visioning – Other Input

- **Additional Workshops**
  - Philly Tech Week
  - Public Participation Task Force
  - RCEDF
  - DVRPC Board

- **Online Survey**

Source: 2016 SHoP Architects/West 8. All Rights Reserved

What Is Your Vision For The Future?

DELAWARE VALLEY dvrpc REGIONAL PLANNING COMMISSION | CONNECTIONS 2045

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What Is Your Vision For The Future?

Environment / Green Space / Sustainability

Equity, Poverty Reduction

Regional Cooperation & Government Efficiency

Integrated, Multimodal Transportation

Density, Livability

Education

Economic Growth & Competitiveness

What Is Your Vision For The Future?

Environment / Green Space / Sustainability

Equity, Poverty Reduction

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Integrated, Multimodal Transportation

Density, Livability

Education

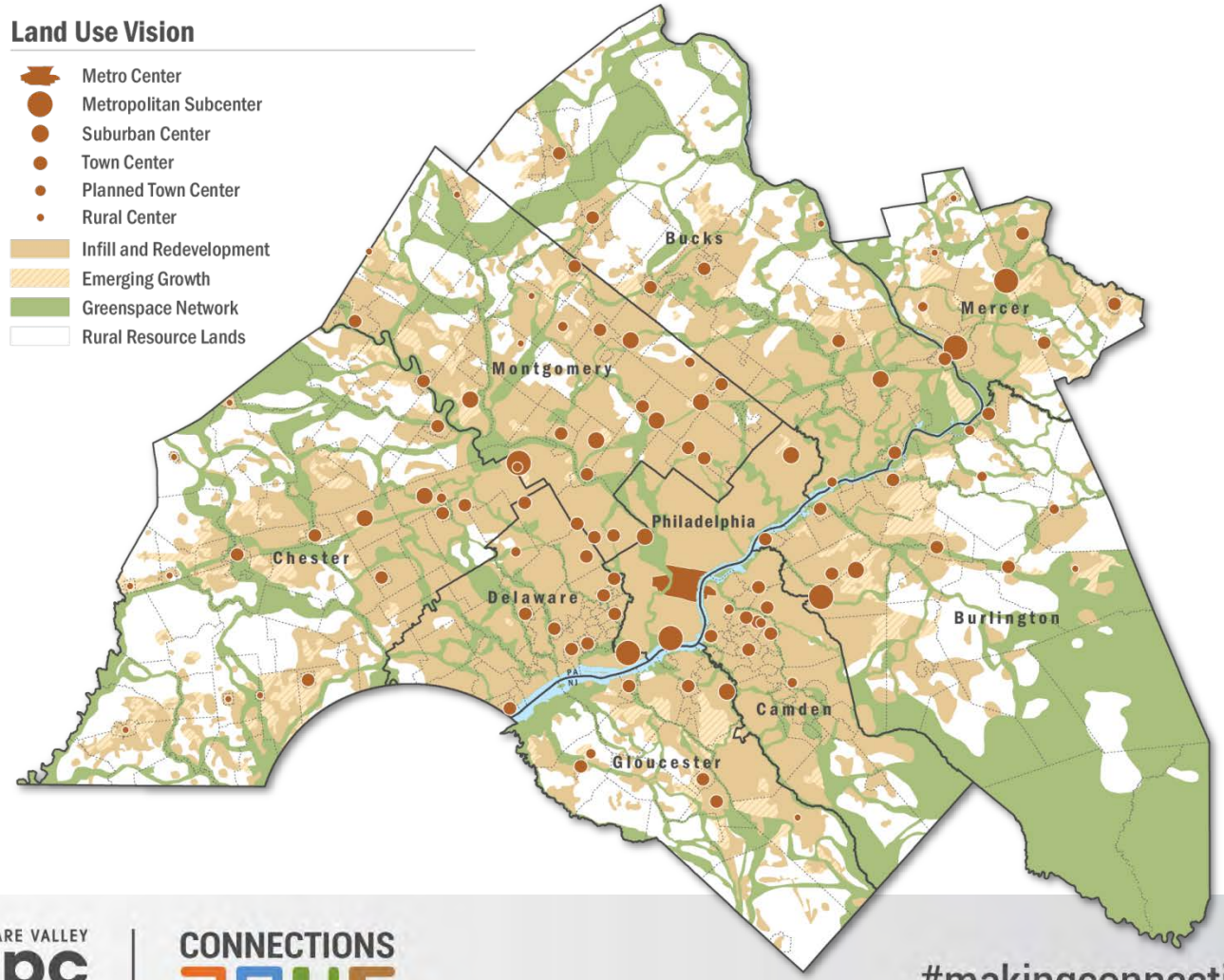
Economic Growth & Competitiveness

The Vision

Over the Next 30 Years, Greater Philadelphia will:

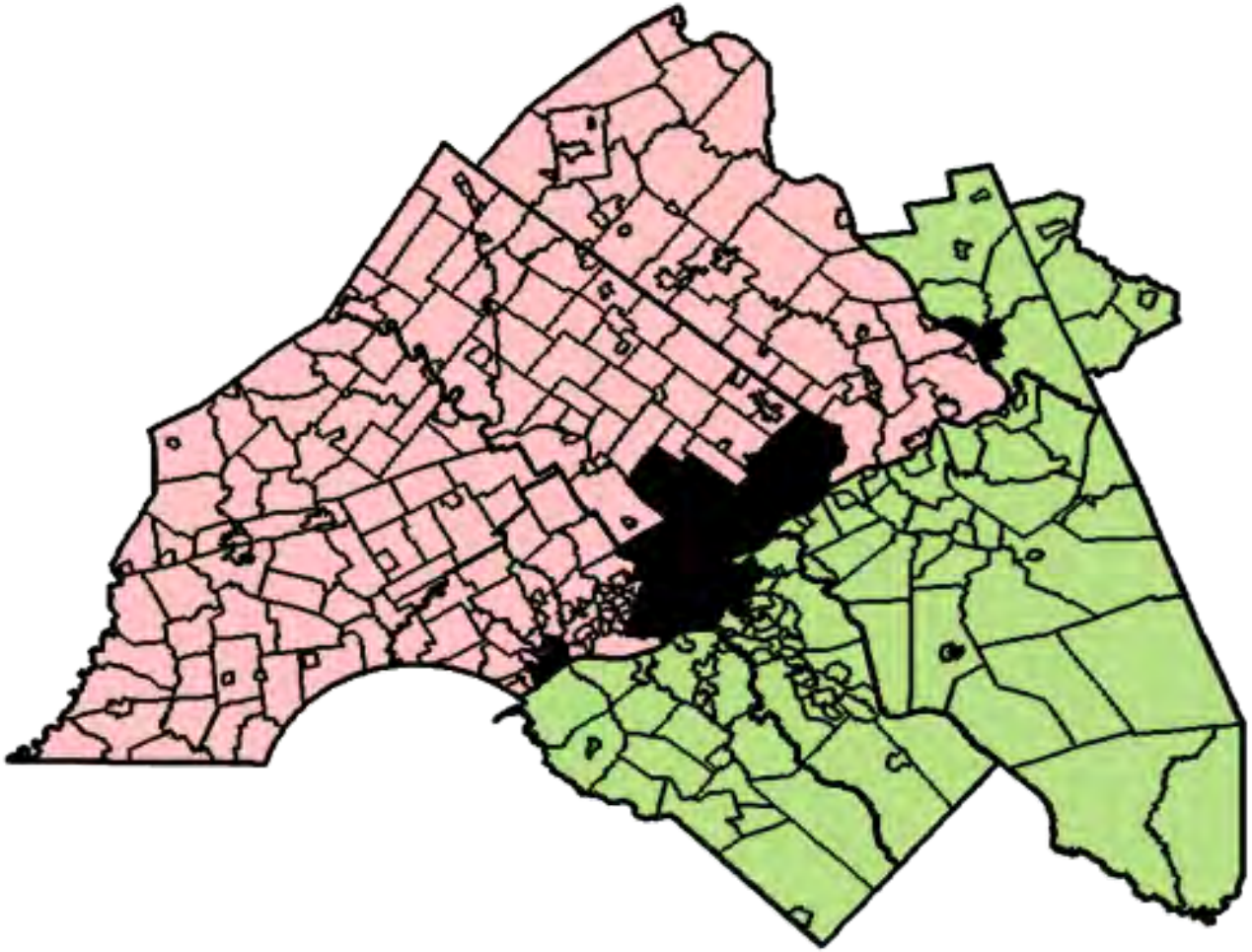
- Build an Integrated, Multimodal **Transportation** Network
- Strengthen **Livable Communities**
- Sustain **Natural Resources**
- Expand the **Economy**
- Enhance **Education**
- Promote **Equity**
- Increase **Regional Cooperation & Government Efficiency**

Future Land Use: Centers-Based



Key Strategies to Create Livable Communities

1 REGION 352 MUNICIPALITIES



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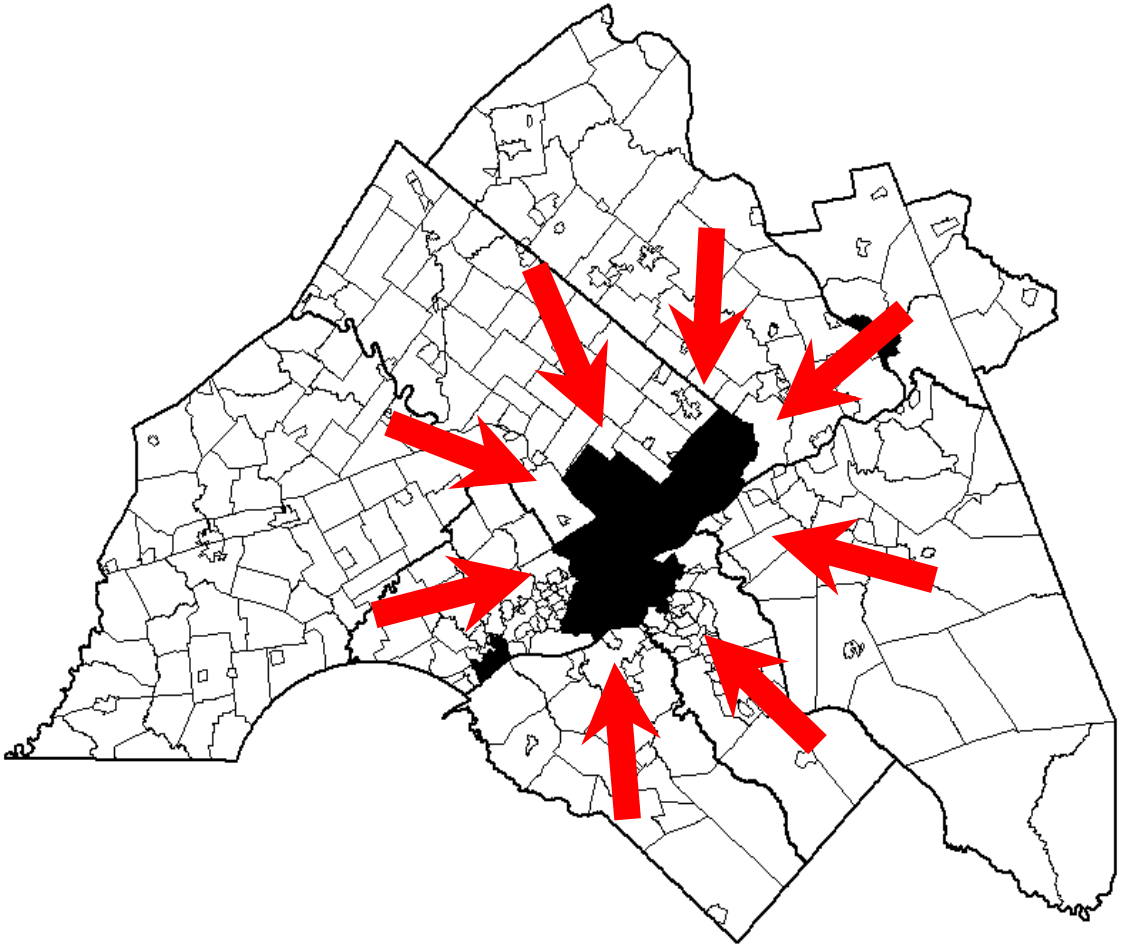
Regional Trends:
20th Century Commute



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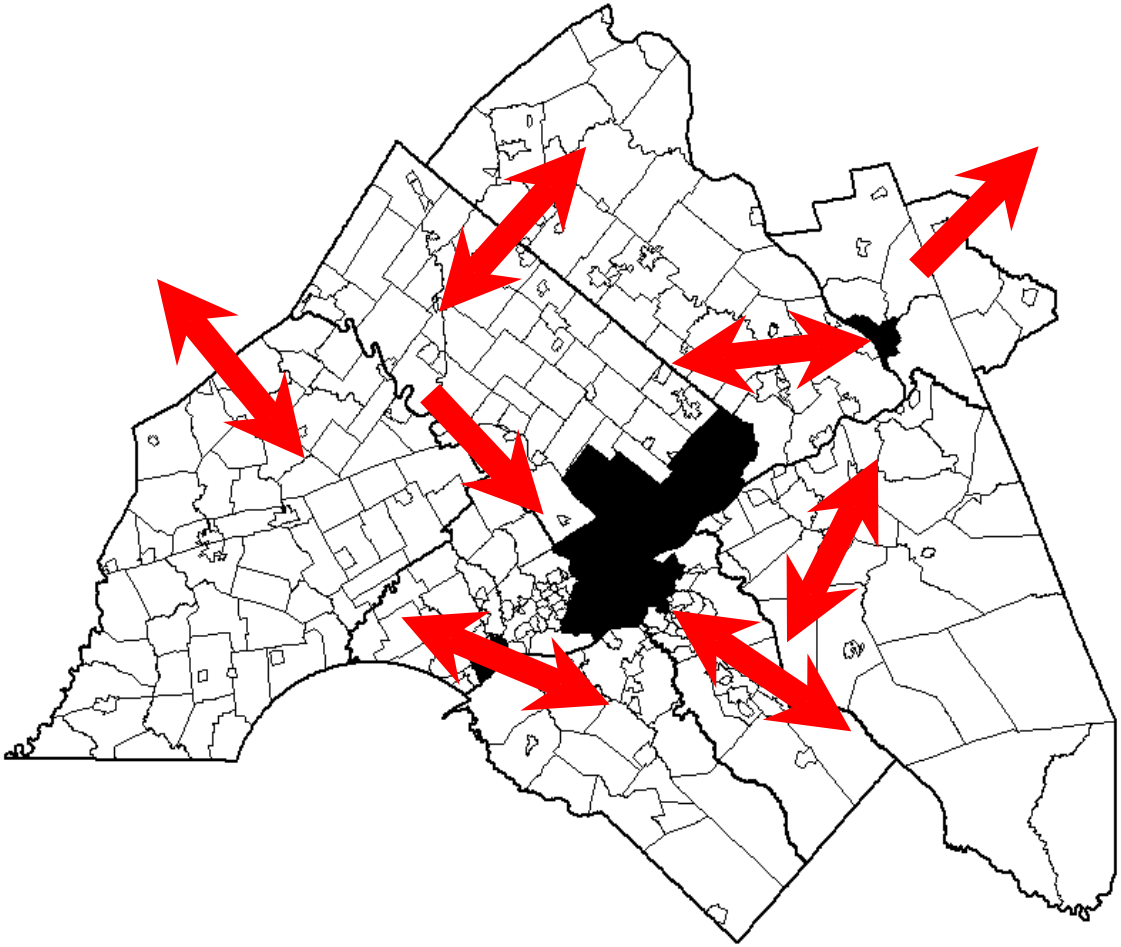
Regional Trends:
21st Century Commute



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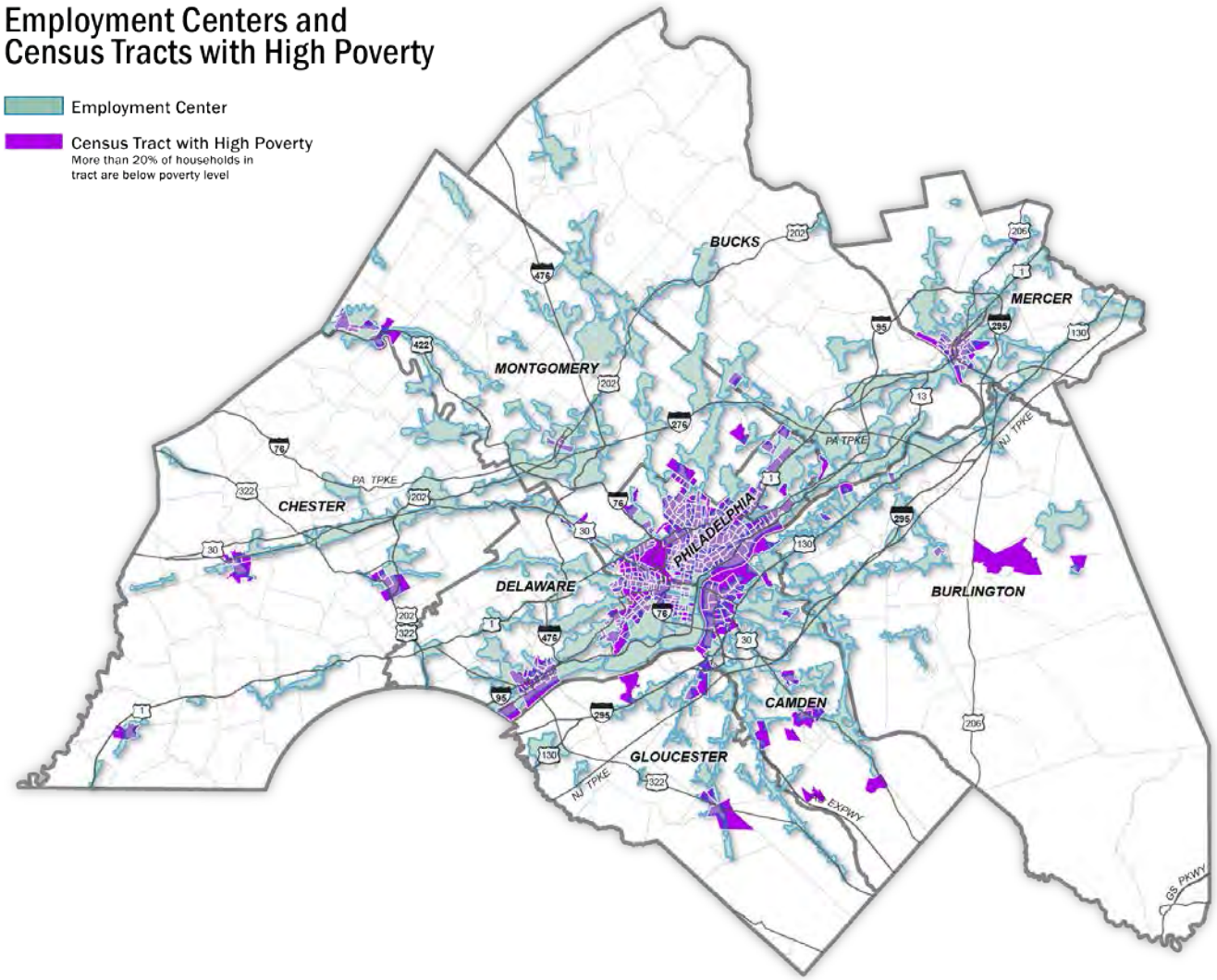
Social Equity



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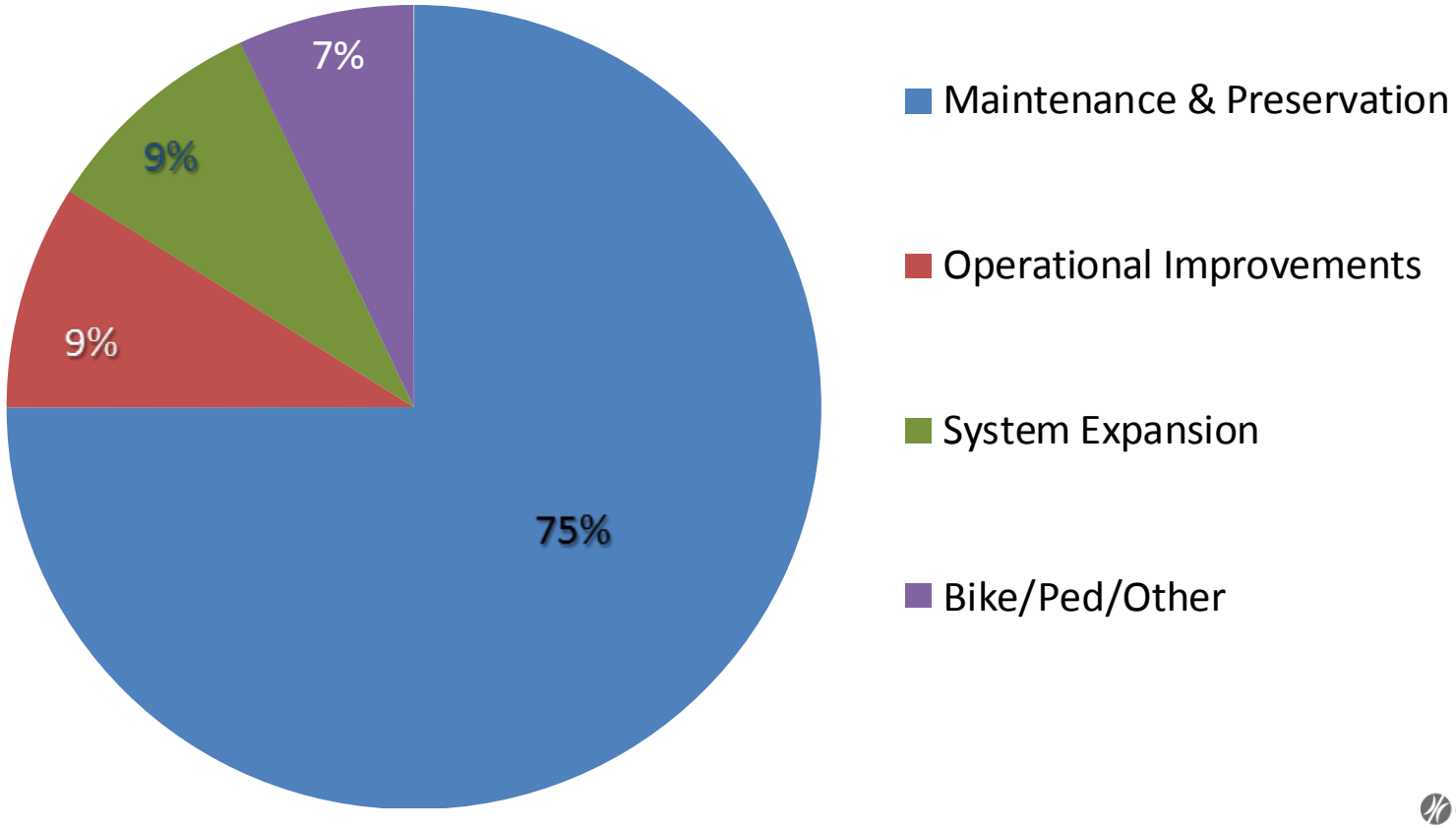
Transportation Investment Priorities:
Funding in the *Connections 2040* Long-Range Plan

$63 Billion between 2014 and 2040



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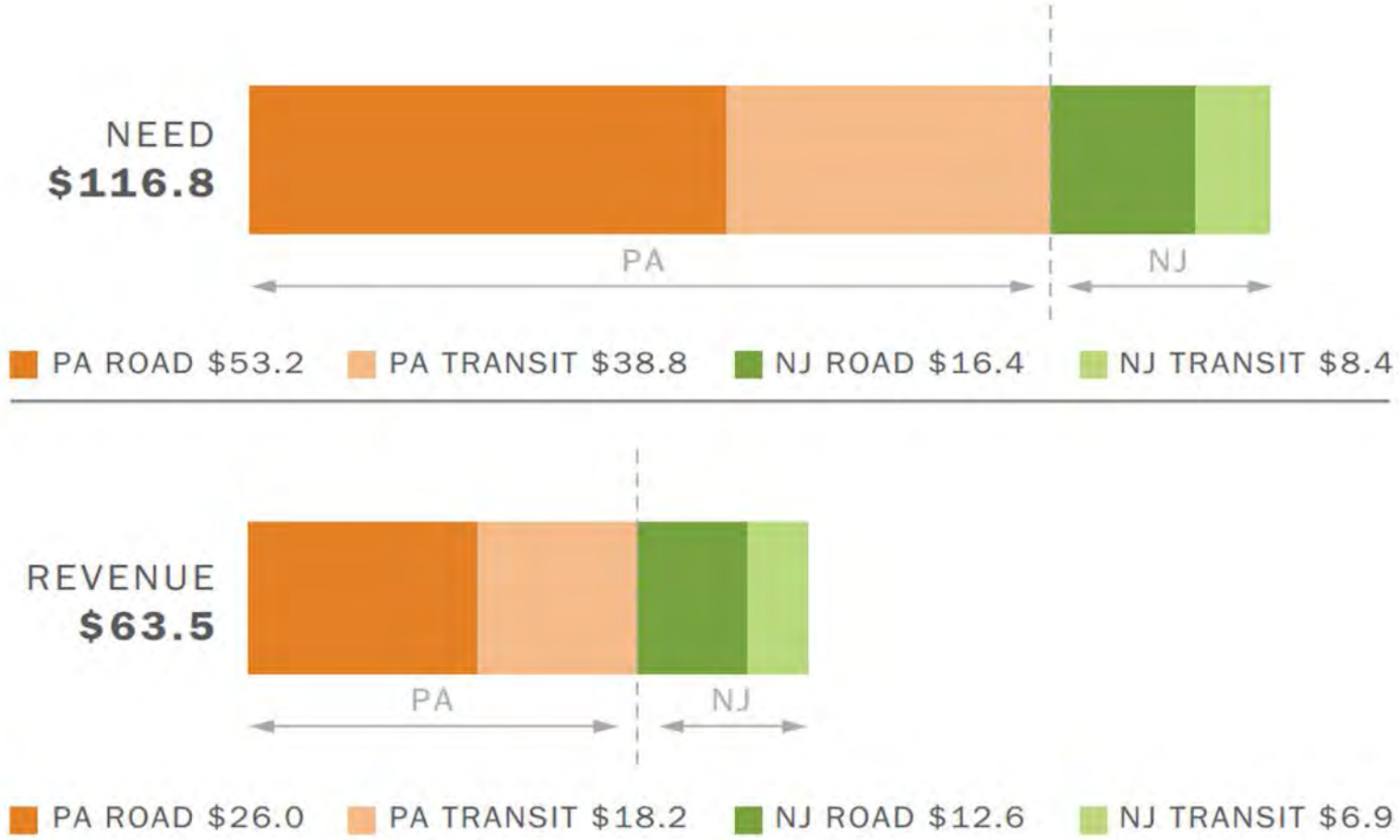
Transportation Funding Gap



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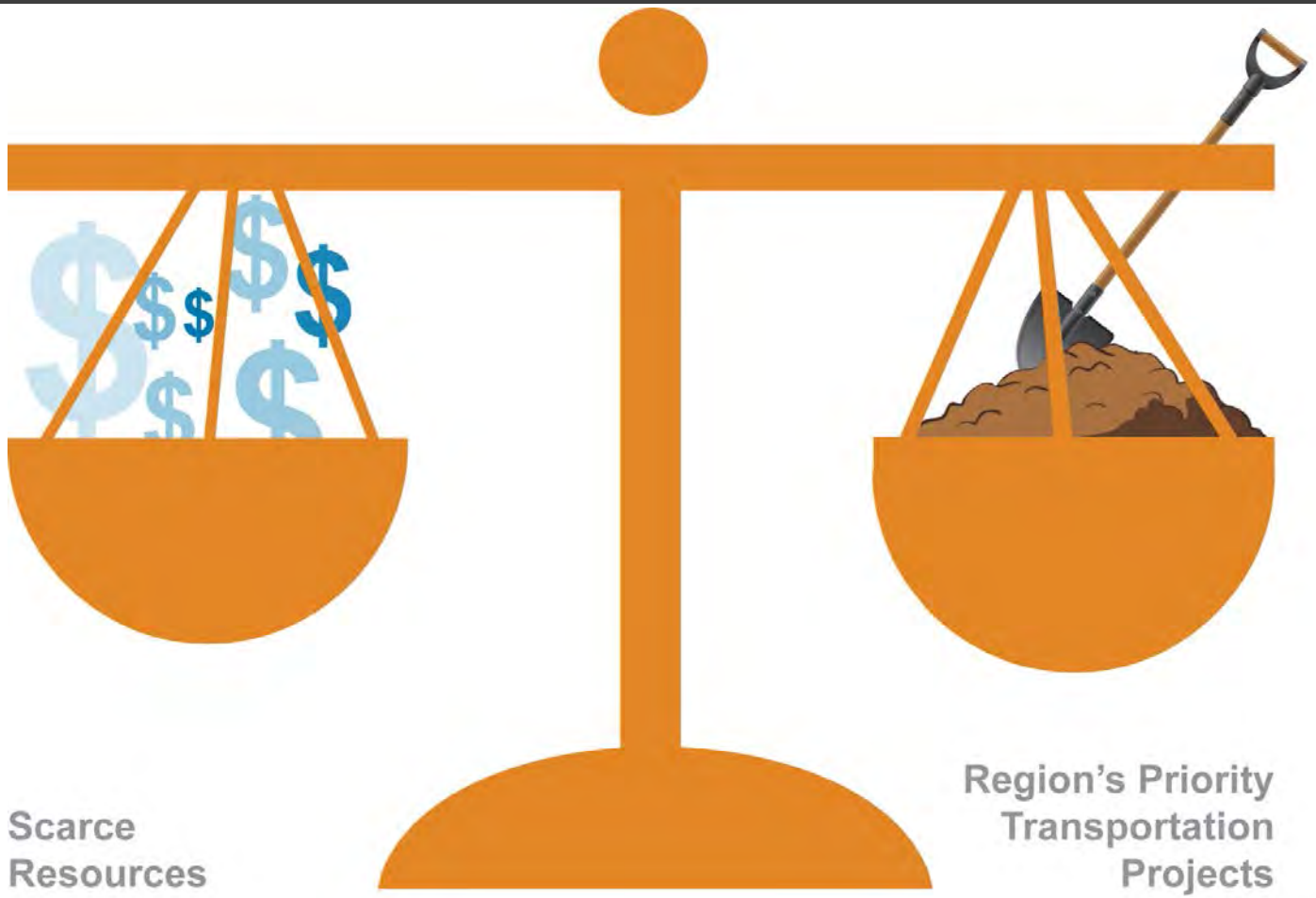
Regional Decision-Making



Performance-Based Planning:
Project Evaluation Criteria

Part 1: SCREENING CRITERIA:

- Compatibility with the Land Use Plan
- Appropriateness of Widening in the Corridor

Part 2: EVALUATION CRITERIA:

- Serve Plan Centers
- Improve Project Delivery
- Reduce Congestion
- Improve Mobility
- Focus on High-Priority Corridors
- Limit Environmental Impacts
- Improve Goods Movement
- Cost-Effectiveness

Future Forces, Sustainable Transportation Actions, & Networking Transportation

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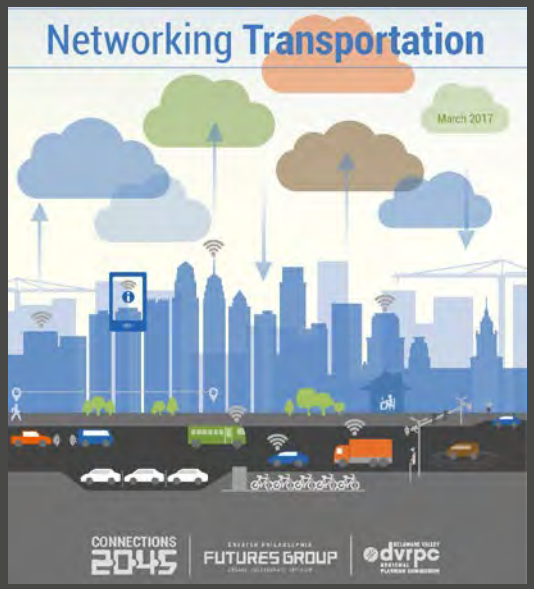
Key Background Reports




FUTURE FORCES
POLITICAL
SOCIAL
TECHNOLOGICAL
ECONOMIC
ENVIRONMENTAL
LIVABLE COMMUNITIES
GROWTH MANAGEMENT
$ ECONOMIC COMPETITIVENESS
MULTIMODAL TRANSPORTATION

Greater Philadelphia Future Forces

People and jobs moving to walkable communities is the start of a long-term trend.

Increased outsourcing and automation means individuals must create their own economic opportunities.

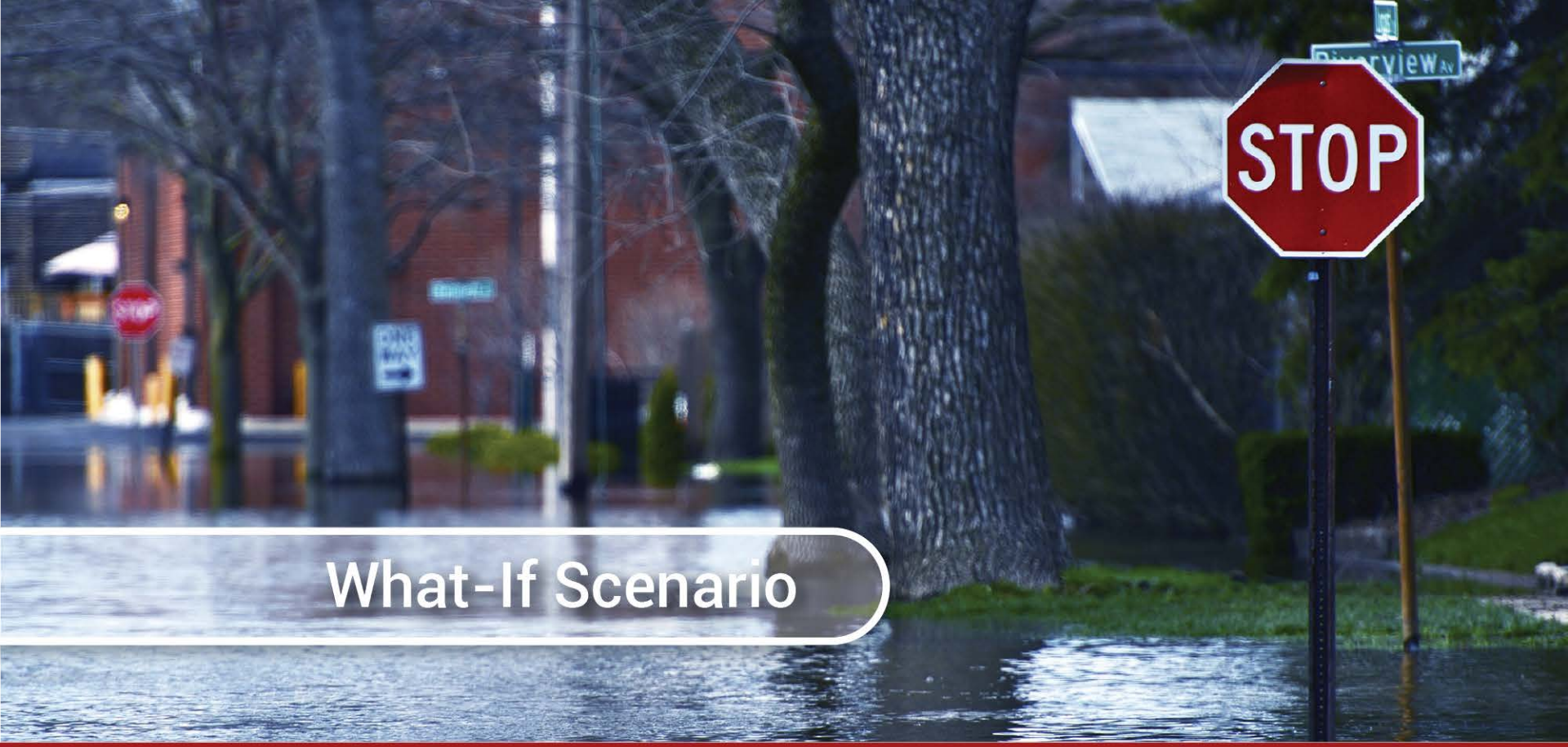
Continued rise in atmospheric carbon levels lead to significant disruptions from climate change.

Smartphones, apps, and real-time info help people get around using new and existing transportation modes.

An abundance of domestically produced oil and natural gas keeps the cost of energy low.

"*The only relevant discussions about the future are those where we succeed in shifting the question from whether something will happen to what would we do if it happened.*"

Arie de Geus
Shell International Petroleum Company



What-If Scenario

SEVERE CLIMATE

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The Region's Forecast: Hotter and Wetter Weather

What-If Scenario

Photo: Ken Lund Via Wikimedia Commons

SEVERE CLIMATE

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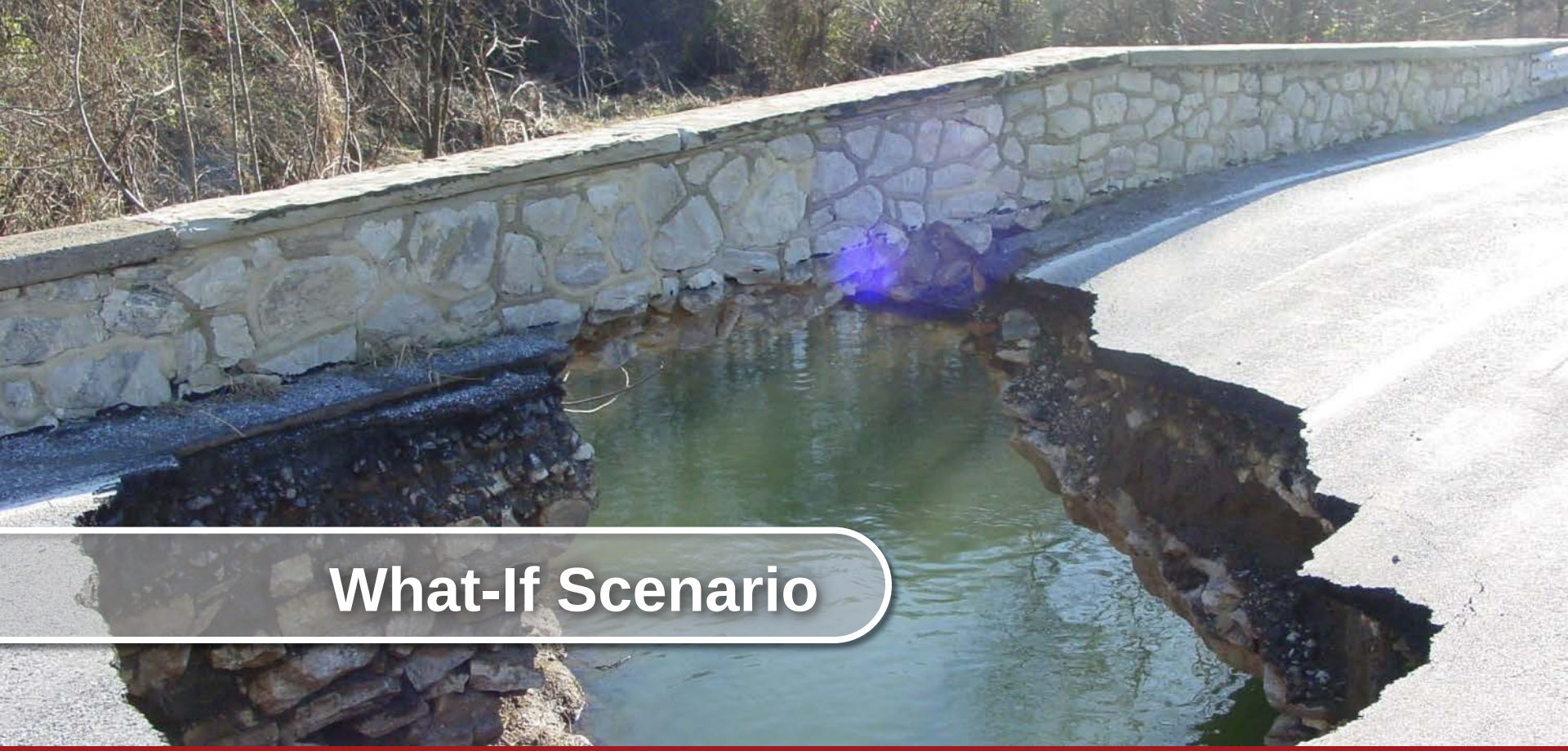
Flooding Risks to Low-Lying Areas



What-If Scenario

Photo: Chester County Planning Commission

SEVERE CLIMATE

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Significant Disruptions

SEVERE CLIMATE

Contingent Actions

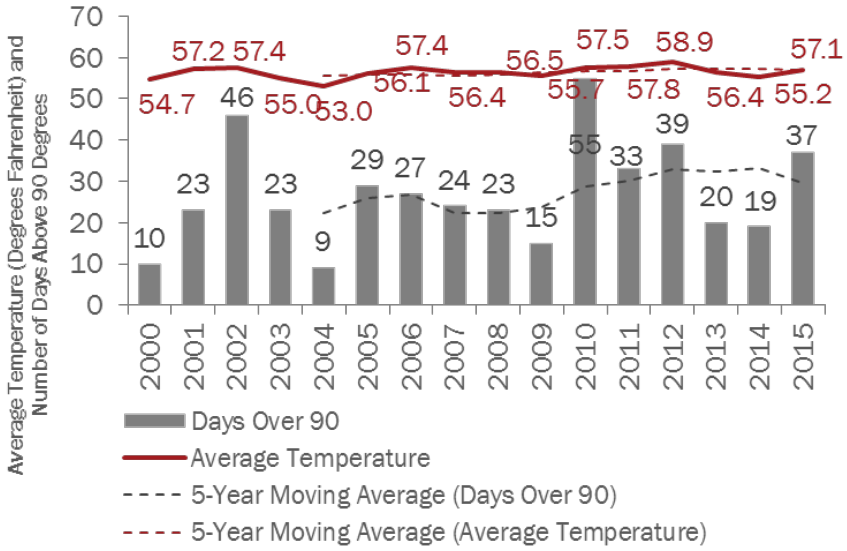
Source: SEPTA

- Increase intergovernmental coordination
- More funding for infrastructure resiliency projects
- Improve emergency preparedness
- Preserve farmland and promote regional food production
- Invest in alternative energy & move to lower carbon electricity

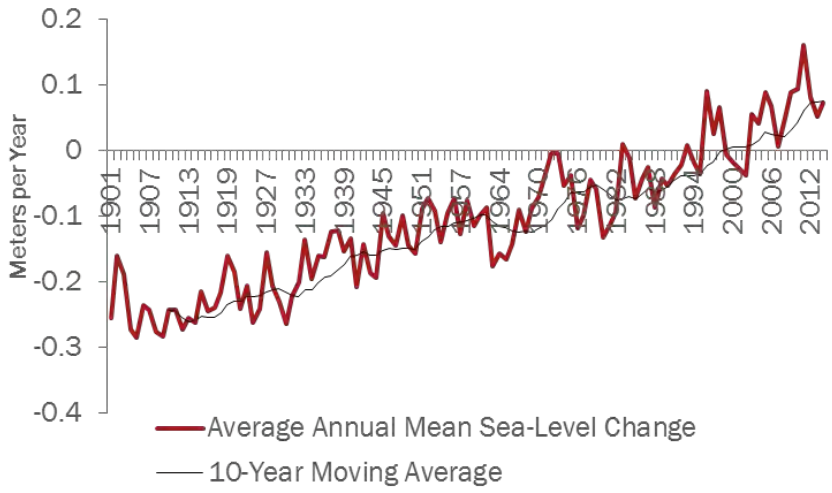
SEVERE CLIMATE

Leading Indicators

Average Regional Temperature and Days over 90 Degrees Fahrenheit



Annual Regional Sea Level Change

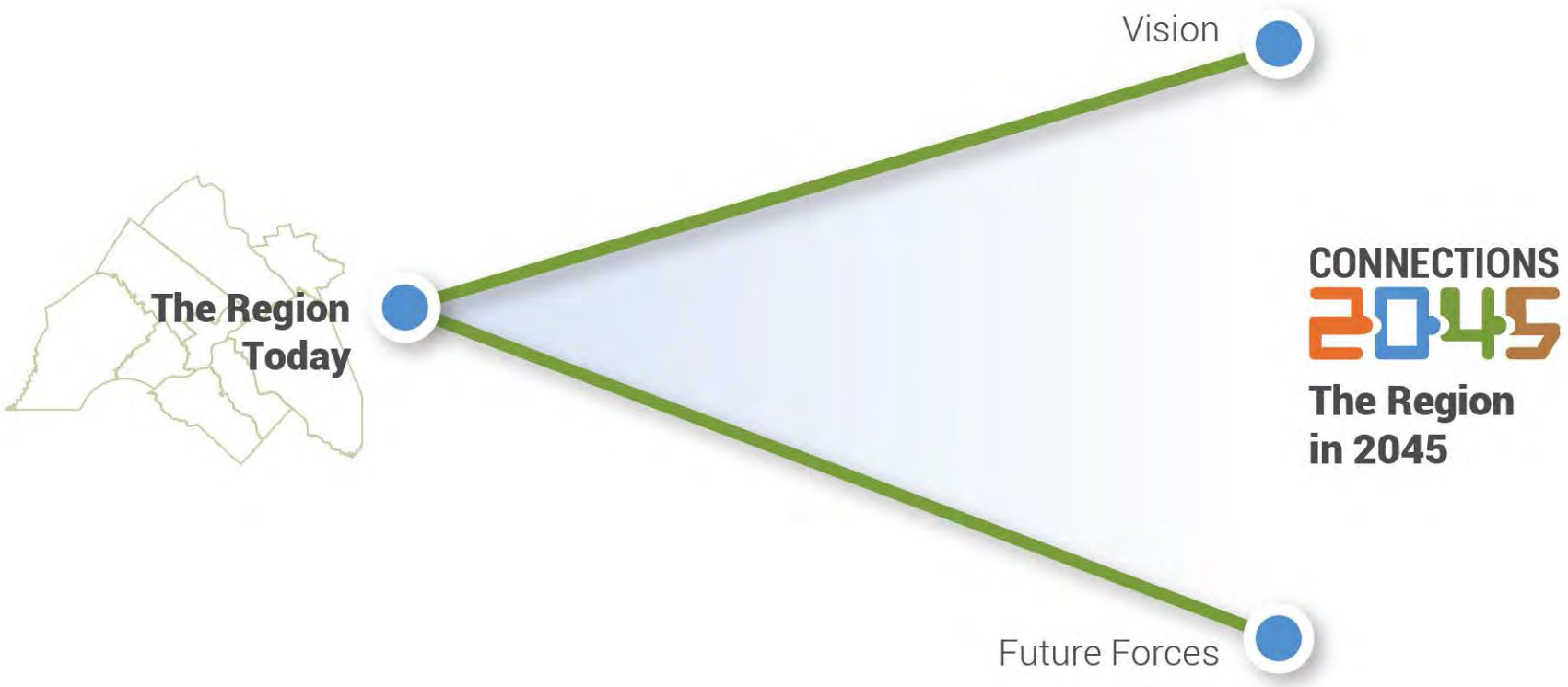


***Sources LEFT**: Source: U.S. Climate Data, 2000–2015 [www.usclimatedata.com/climate/philadelphia/pennsylvania/united-states/uspa1276].*
***RIGHT**: National Ocean and Atmospheric Administration (NOAA) station 8545240, Philadelphia, PA [www.tidesandcurrents.noaa.gov/sltrends/sltrends_station.shtm].*

Universal Actions

Build lifelong communities
Data-driven governance
Develop the impact economy
Enhance freight and goods movement
Expand broadband infrastructure
Green infrastructure and stream buffer ordinances
Increase regional transportation funding
Infrastructure resiliency
Immigrant-friendly policies
Megaregional collaboration and cooperation
Mixed-use infill development
Modern, multimodal transportation system
Universal pre-kindergarten and other k-12 programs
Vision Zero

Future Forces vs. Vision



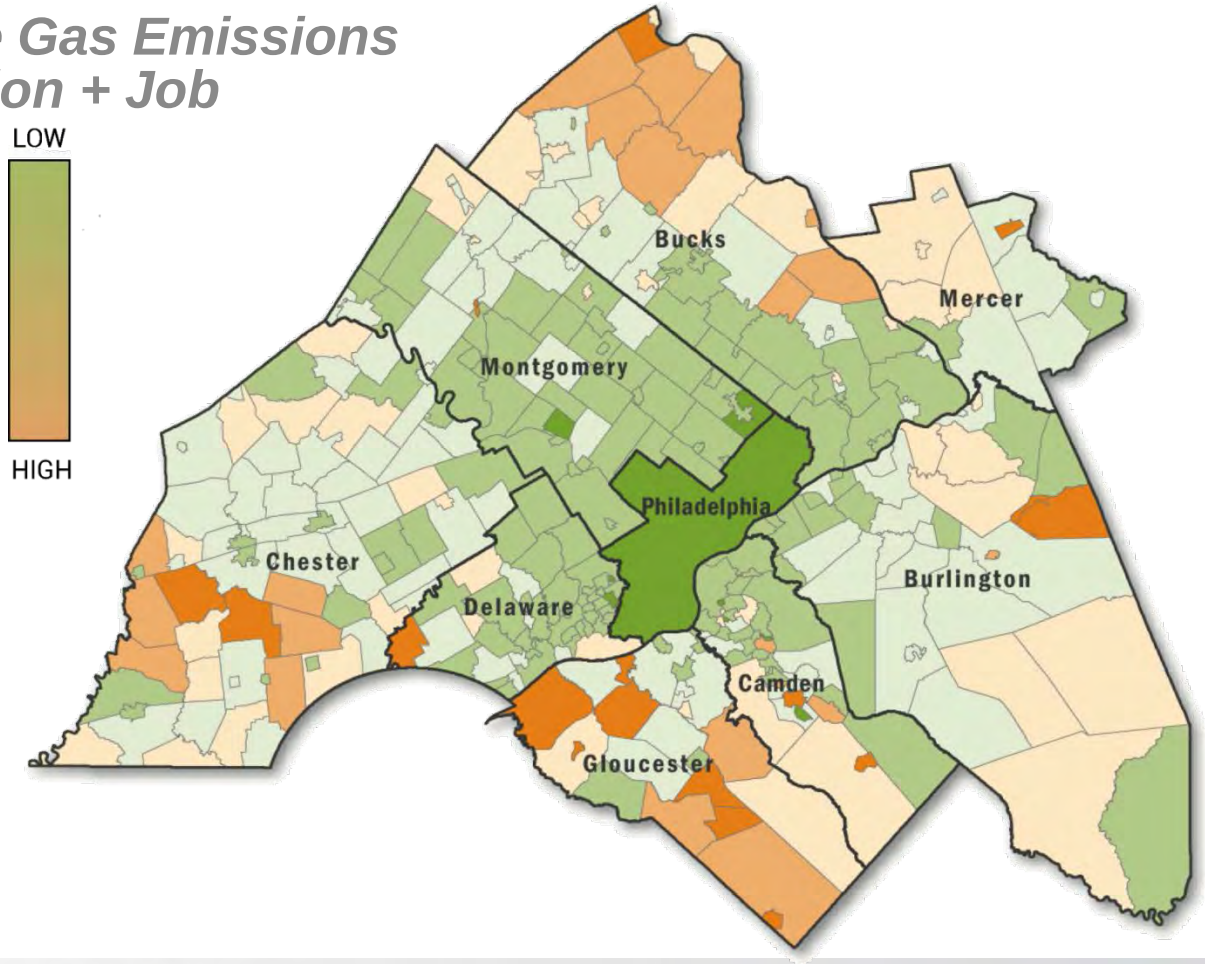
Sustainable Transportation Actions

Key Tools

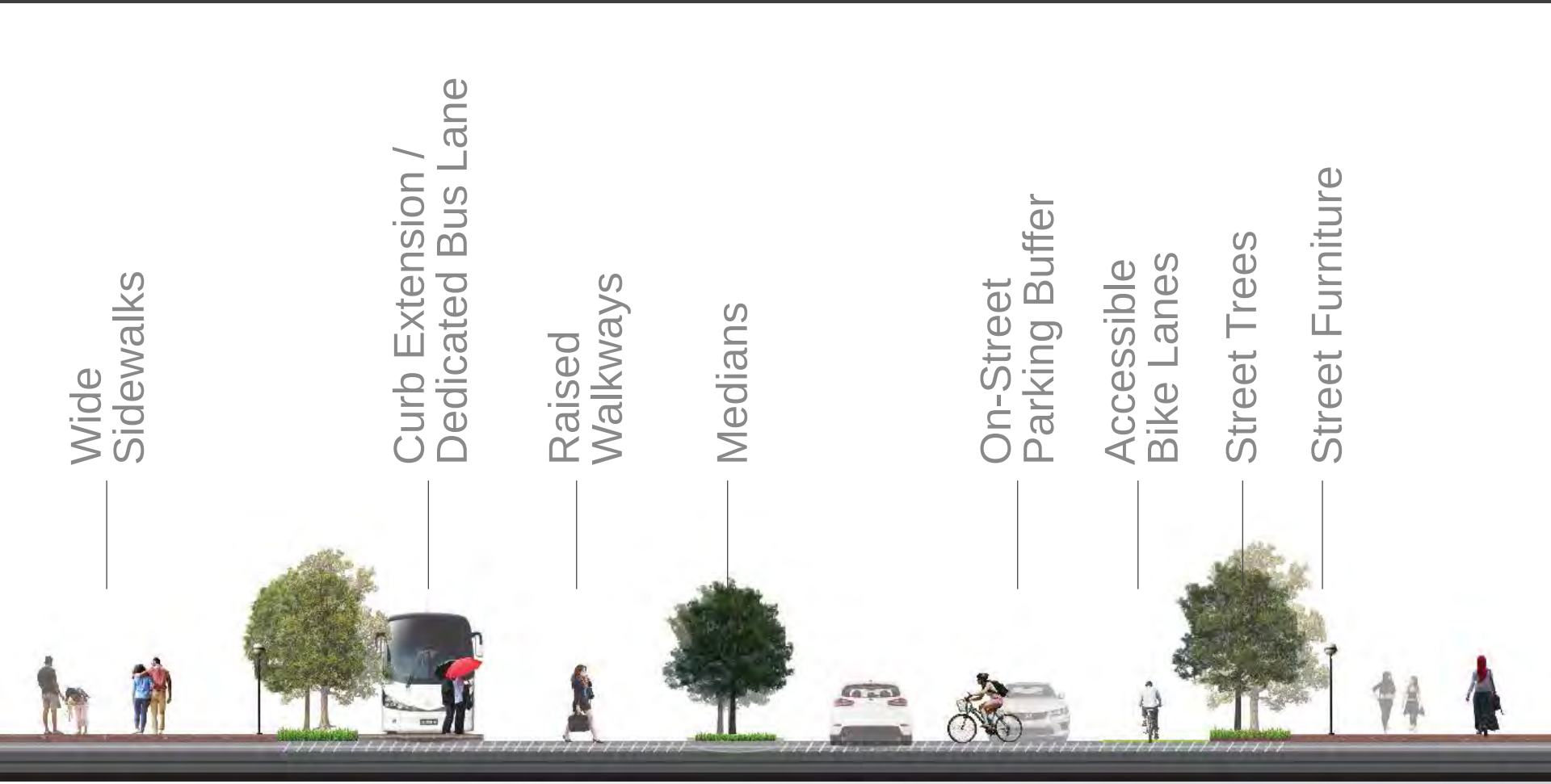
- Technology
- Markets/Pricing
- Design
- Travel behavior

Design – Land Use

Greenhouse Gas Emissions per Population + Job



Design – Complete Streets



Efficient Use of Space

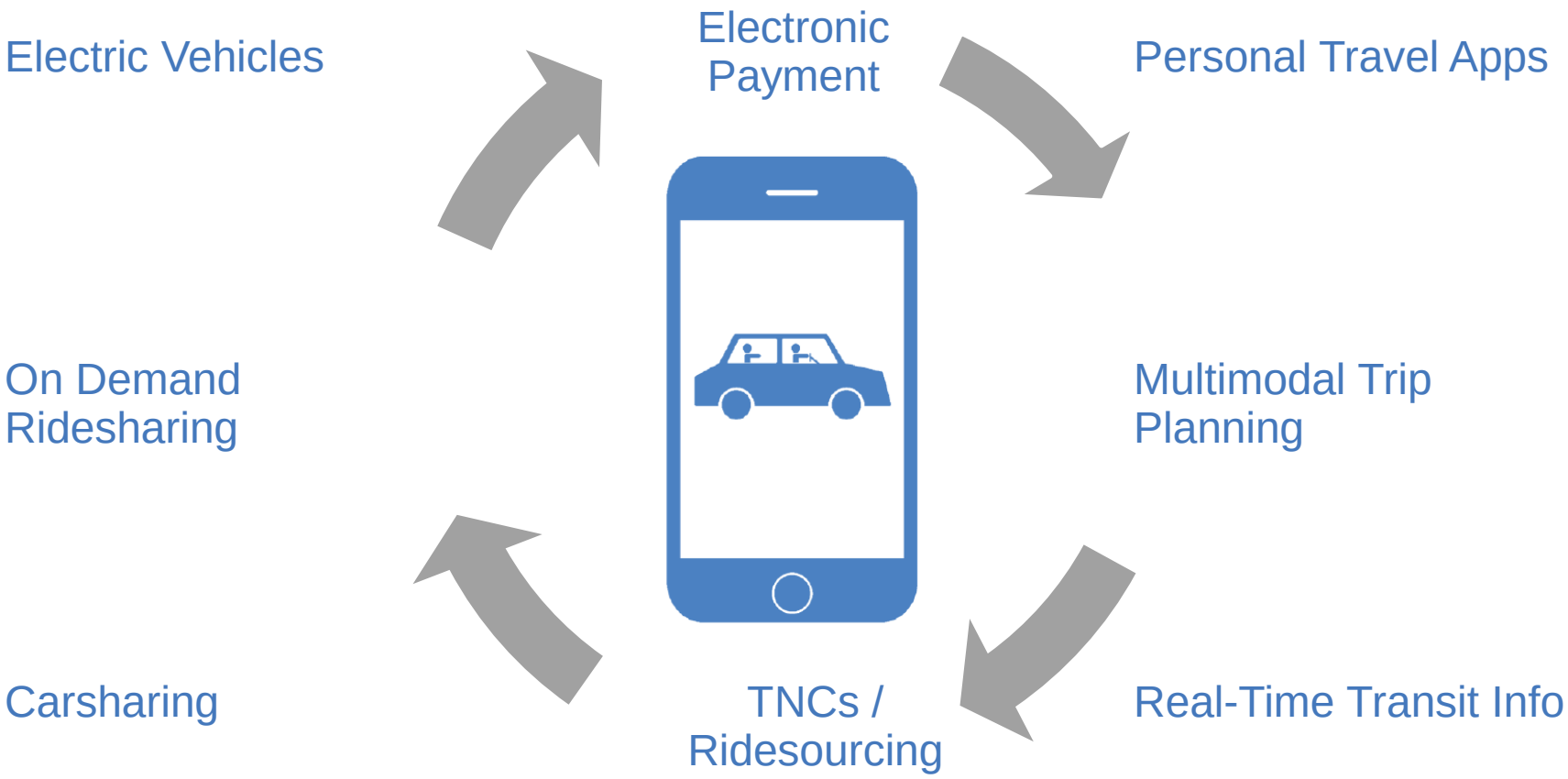
GREATER PHILADELPHIA AVERAGE VEHICLE OCCUPANCY

1.58

PASSENGERS

ONE FULL BUS CAN REMOVE UP TO 40 CARS FROM THE ROADWAY NETWORK IN GREATER PHILADELPHIA

Technology


Electric Vehicles
Electronic Payment
Personal Travel Apps
On Demand Ridesharing
Multimodal Trip Planning
Carsharing
TNCs / Ridesourcing
Real-Time Transit Info

Markets

VMT

Drivers are charged by the mile. This can reduce individual VMT by 12 to 15 percent.[7] This is a possible alternative for the gas tax.

CARBON TAX

Assessed as a tax to fossil fuel distributors. Revenues could be used to develop sustainable transportation infrastructure.

INSURANCE

Pay-as-you-drive insurance incentivizes car owners to drive less. Pricing insurance in this way is estimated to reduce VMT by 8 percent nationwide.[8]

TRADABLE DRIVING CREDITS

Each person receives an allotment of miles each year, those who drive fewer miles can sell them to those who drive more.

PARKING

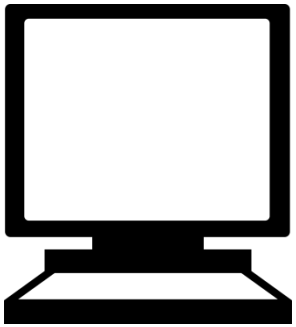
Varying parking prices by demand can emphasize the financial benefits of using sustainable travel modes.

Sustainable Transportation: What You Can Do

- Live in a Walkable Community
- Walk & Cycle
- Take Transit
- Buy Local, Shop Smart
- Apply Innovation
- Combine Trips
- Share Rides
- Drive Eco-Friendly
- Purchase the Cleanest Vehicle You Can Afford
- Keep a Travel Log
- Maintain Your Auto
- Telecommute

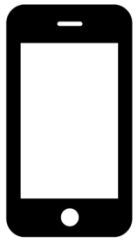
Networking Transportation

The Digital Revolution



Computers

The Internet

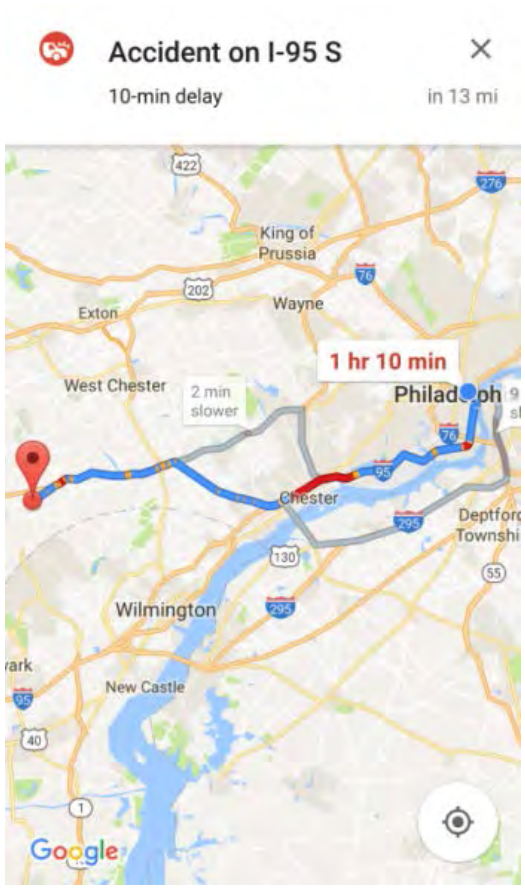


Digital Devices

Data Storage

Sensors

Digital Information & Payments



Connected Cities

Source: Renesys

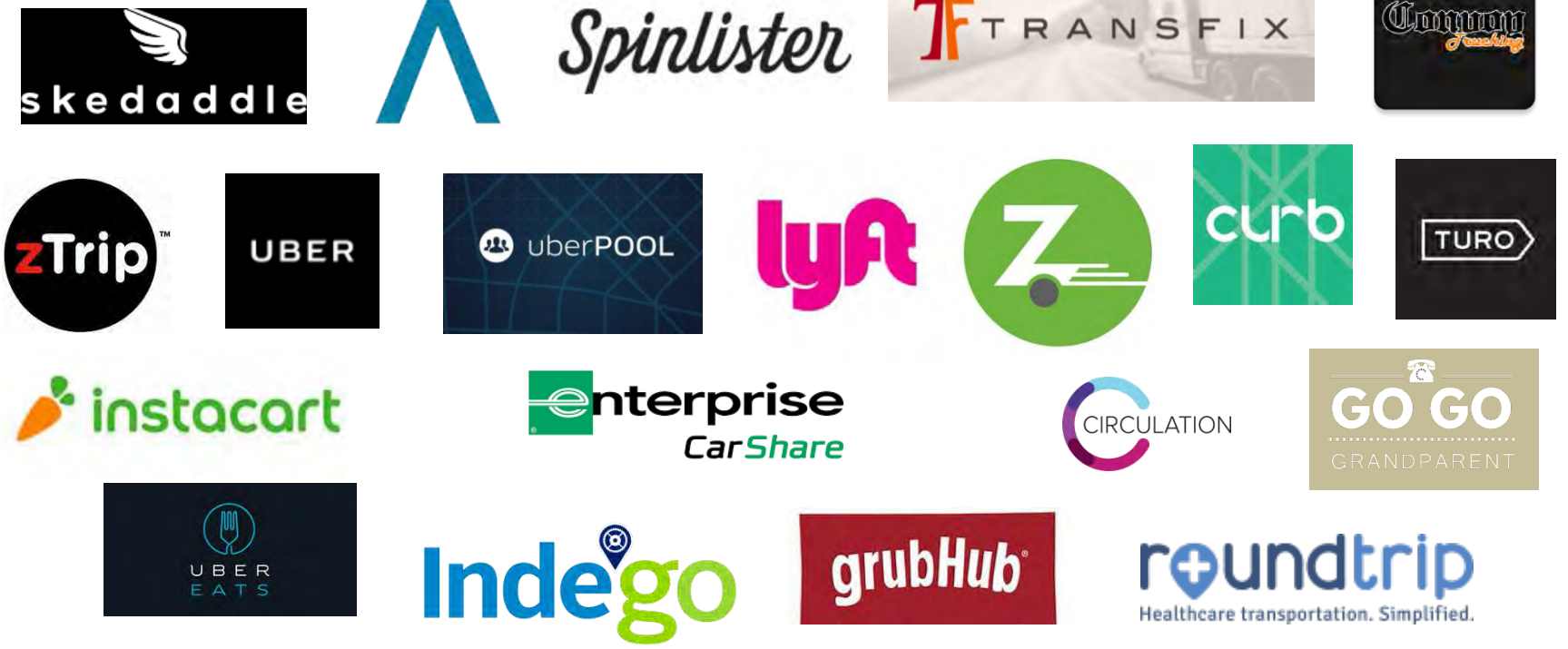
Source: Nexar

Source: Monnit

Digital Transportation: Sharing

Source: http://www.iphoneincanada.ca/news/turos-peer-to-peer-car-rental-company-launches-in-canada/

Digital Providers & TNCs



Digital Transportation: CAVs & UASs

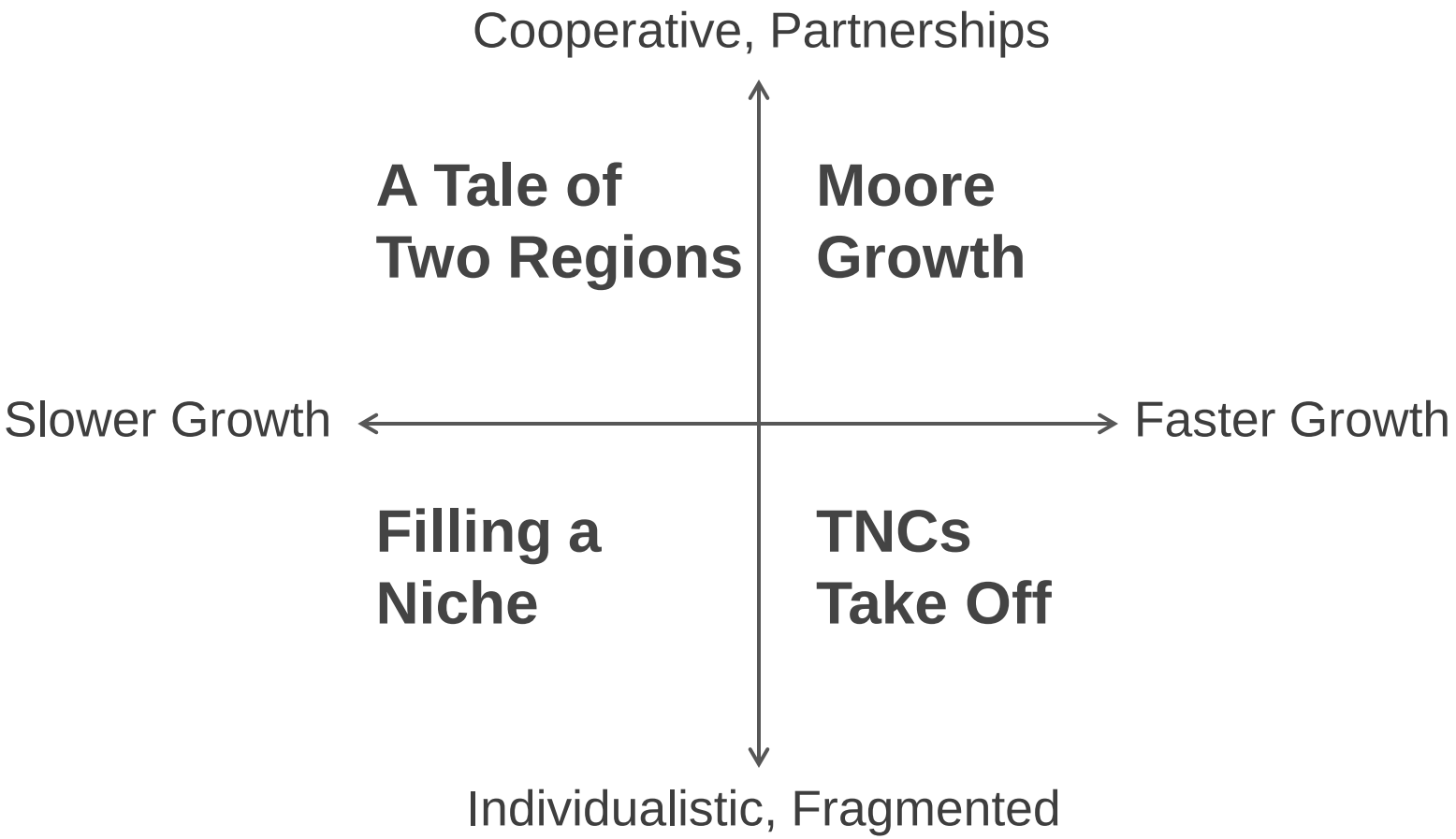

Source: Google


Source: FHWA

Source: Otto

Source: AIAA

TNC Scenarios



Digital Infrastructure Implications

Multimodal Transportation Hubs

Source: www.carsharing.de

Pick-up / Drop-off Zones
Truck Delivery Areas

Digital Infrastructure Implications

Multimodal / Complete Streets

Source: www.completestreetsprince.org

Reduced Parking Demand
Retrofit Office Parks into Mixed-Use Centers

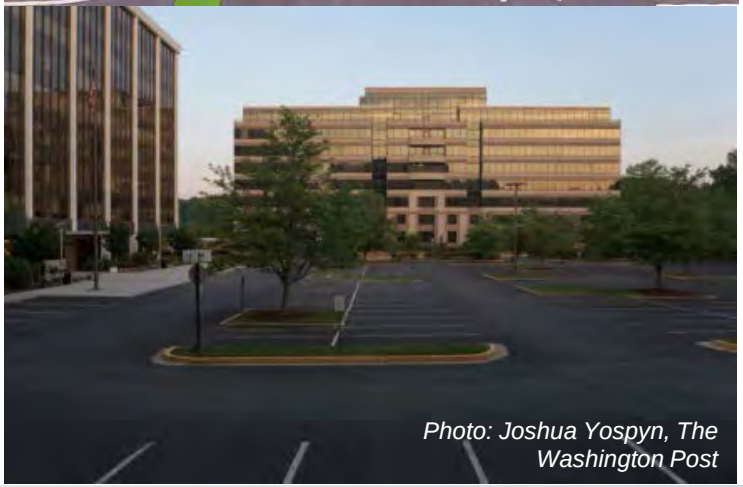


Photo: Joshua Yospyn, The Washington Post

Digital Infrastructure Implications

Electric Vehicle Charging Stations

Multifunctional Infrastructure

Digital Infrastructure Implications

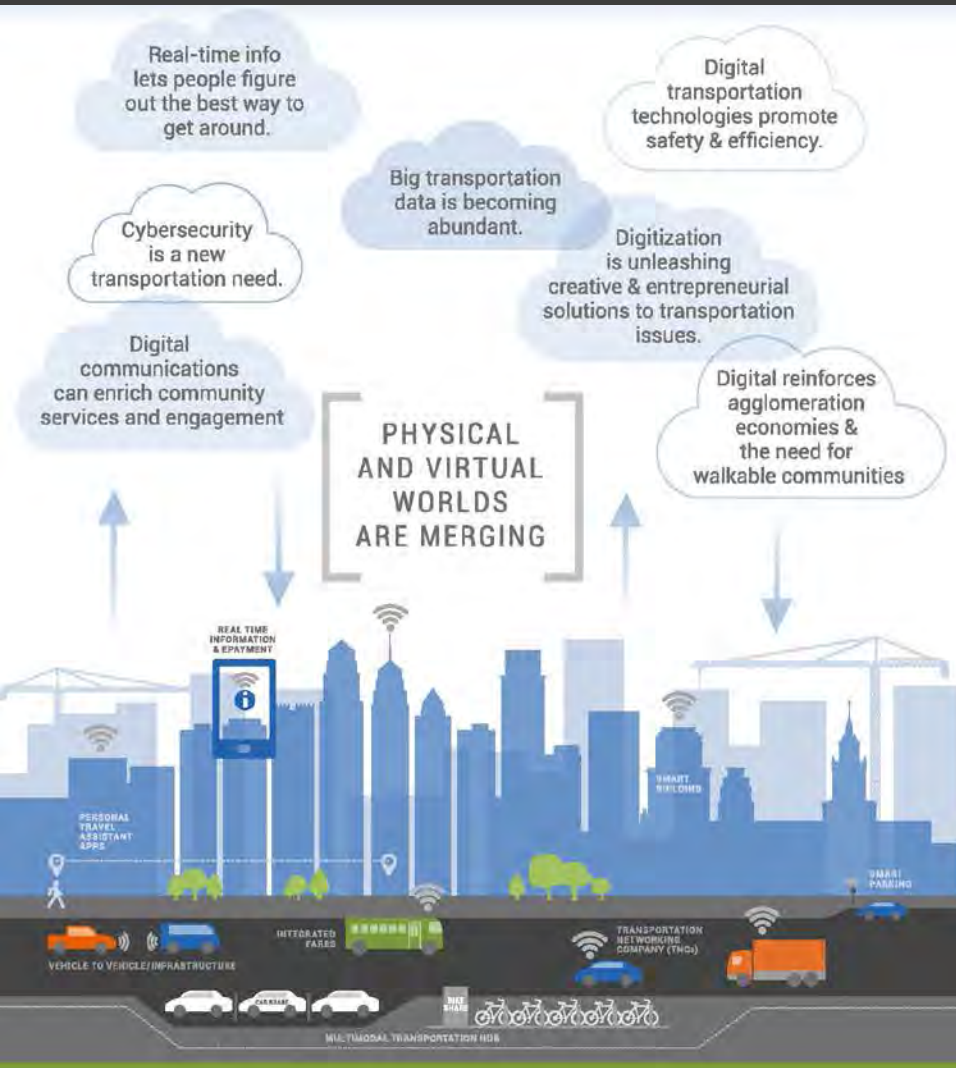
Digital Information Kiosks

Internet Connected Infrastructure (V-2-V / V-2-I)

Networking Transportation

- Digitization + shared mobility = opportunity to make transportation safer, more efficient, & less costly
- Government needs to coordinate network integration
- Existing service providers can be successful if they are flexible and adaptable
- Funding may rely more heavily on the private market
- Race between shared mobility and HAVs
- Digitization doesn't change the basic fundamentals of good urban design

New Vision: Integrated, Multimodal Network



CONNECTIONS 2045 | DELAWARE VALLEY dvrpc REGIONAL PLANNING COMMISSION

Networking transportation will mean more options, increased safety & efficiency, and less congestion.

Government provides flexible oversight, and builds partnerships with private companies and other institutions.

- Ensure low-income and environmental justice communities can access and benefit from new technologies and services.
- Connect infrastructure, and update institutional practices & regulations for a digital world.

Existing transportation services need to be flexible and adaptable to fast changing conditions.

TNCs are receiving substantial venture capital & must grow fast to maintain their value.

- Growth may require changing travel behavior.
- At the same time they face labor, regulatory, cost, and potential technological disruption issues.

In the future, HAVs and UASs may revolutionize passenger and goods movement.

- This promises even greater safety and efficiency, and lower costs.
- The potential loss of driver and other jobs means government must prepare workers for the jobs of tomorrow.
- Achieving the full benefits of HAVs may require separate facilities.

Stakeholder Feedback & Next Steps

- Fall Strategies Workshops
- Futures Group and Automated Vehicles
- Next Steps for the Long-Range Plan

Fall Strategies Workshop

- Nov 2016
- Regional stakeholders

Fall Strategies Workshop

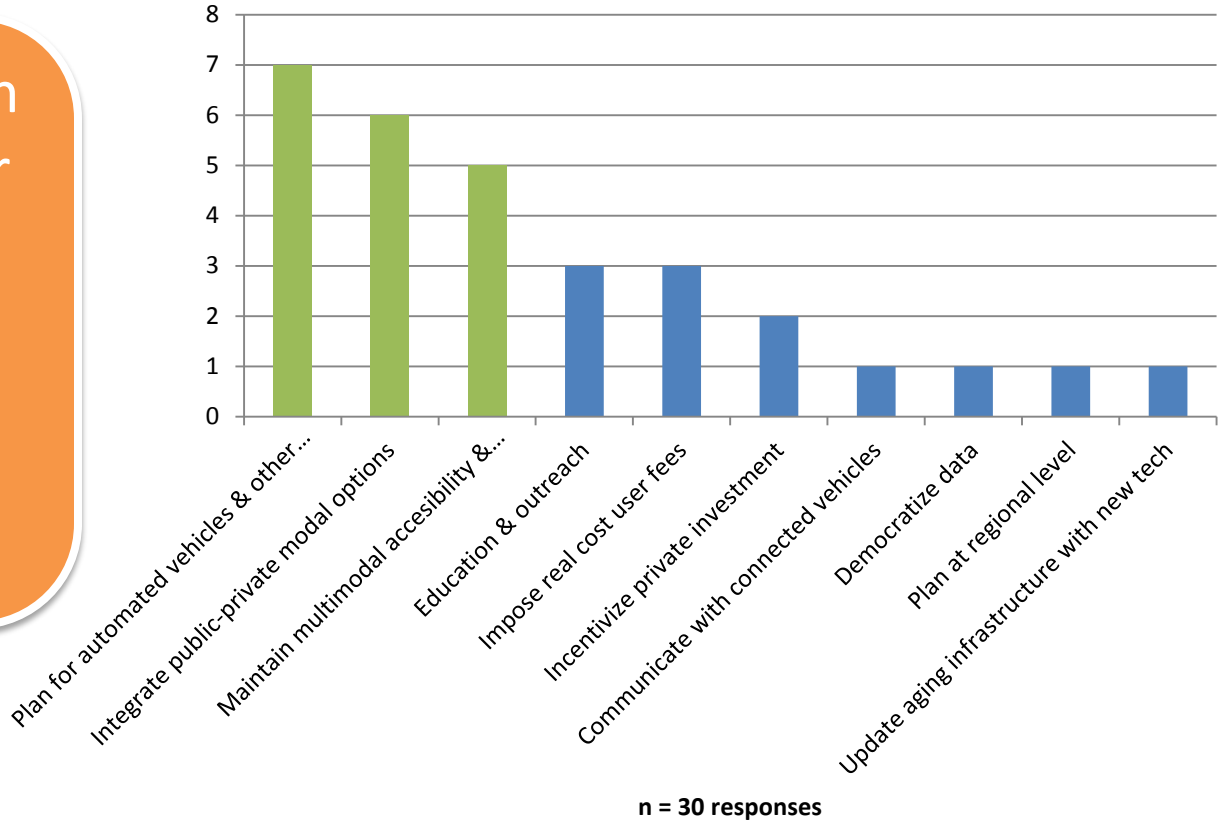
- Future Forces Presentation
- Breakout sessions

Fall Strategies Workshop

- 8 groups
- Facilitated discussion
- 2nd rotation to new topic

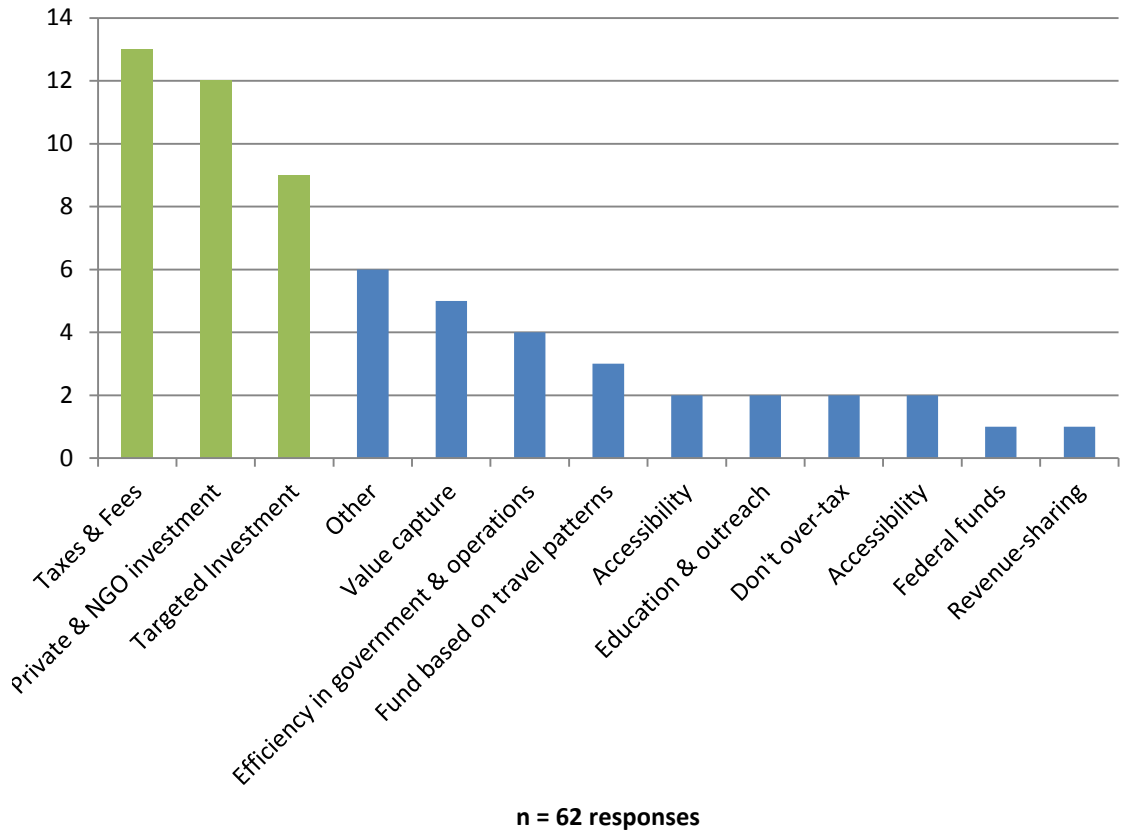
Transportation Technology

How does the region become a leader for incorporating new transportation technologies and emerging private market services?



Transportation Funding

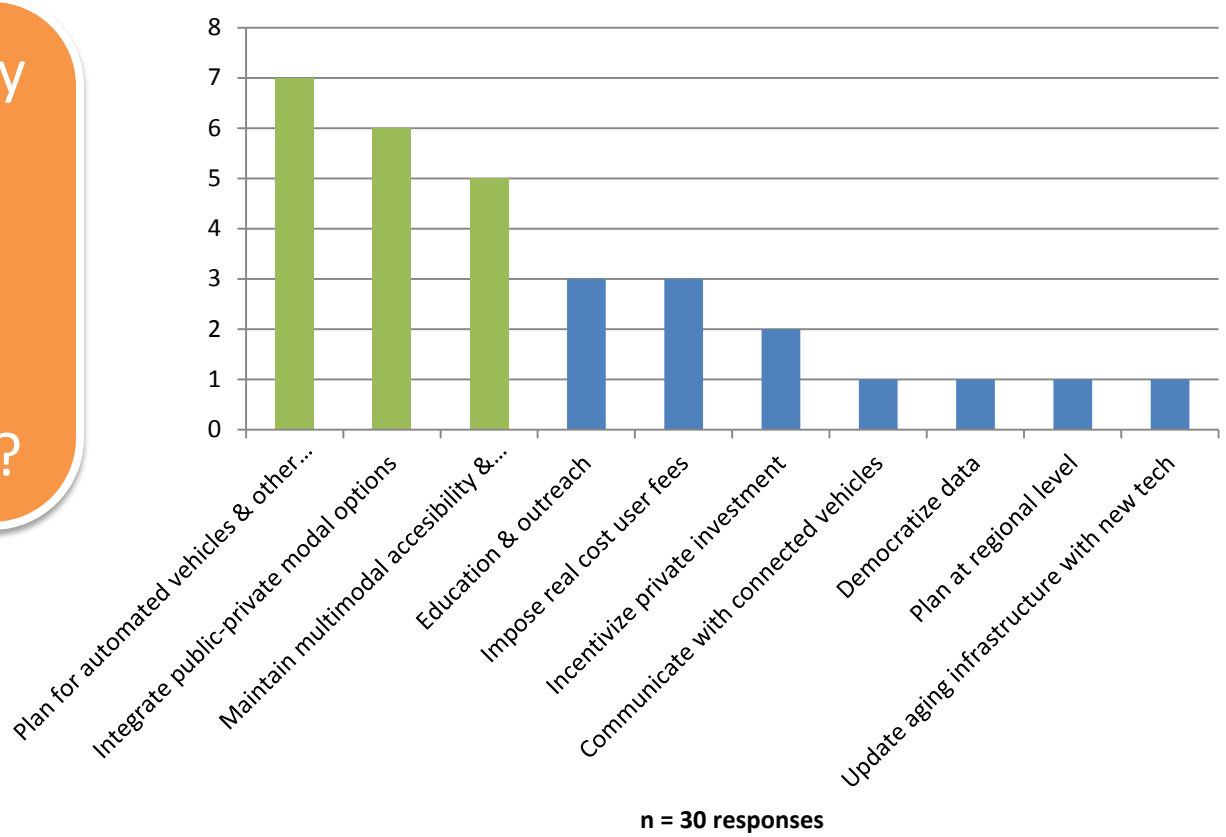
How can the region generate enough funding to maintain and improve transportation infrastructure?



n = 62 responses

Economic Growth and Competitiveness

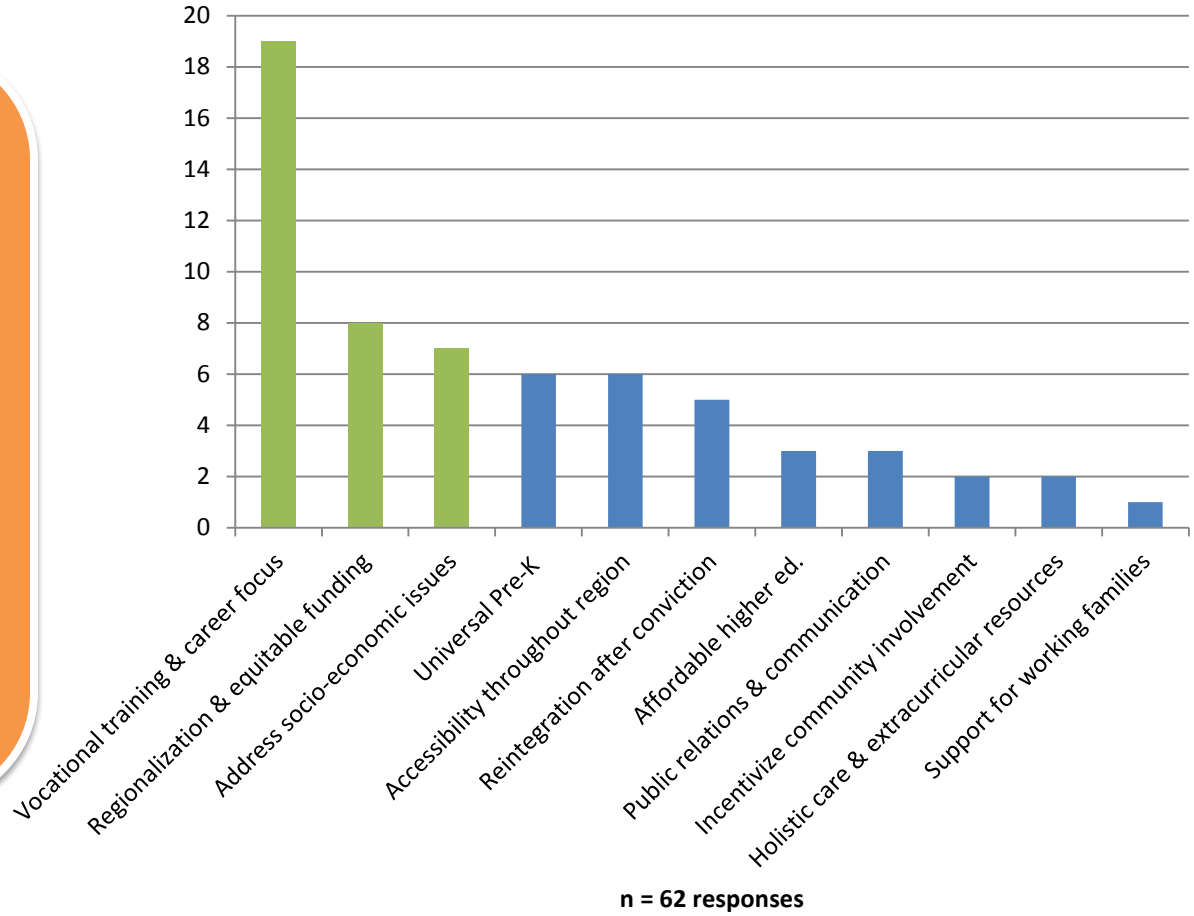
How can we diversify and expand the region's economy and become more competitive within the global economy?



n = 30 responses

Education

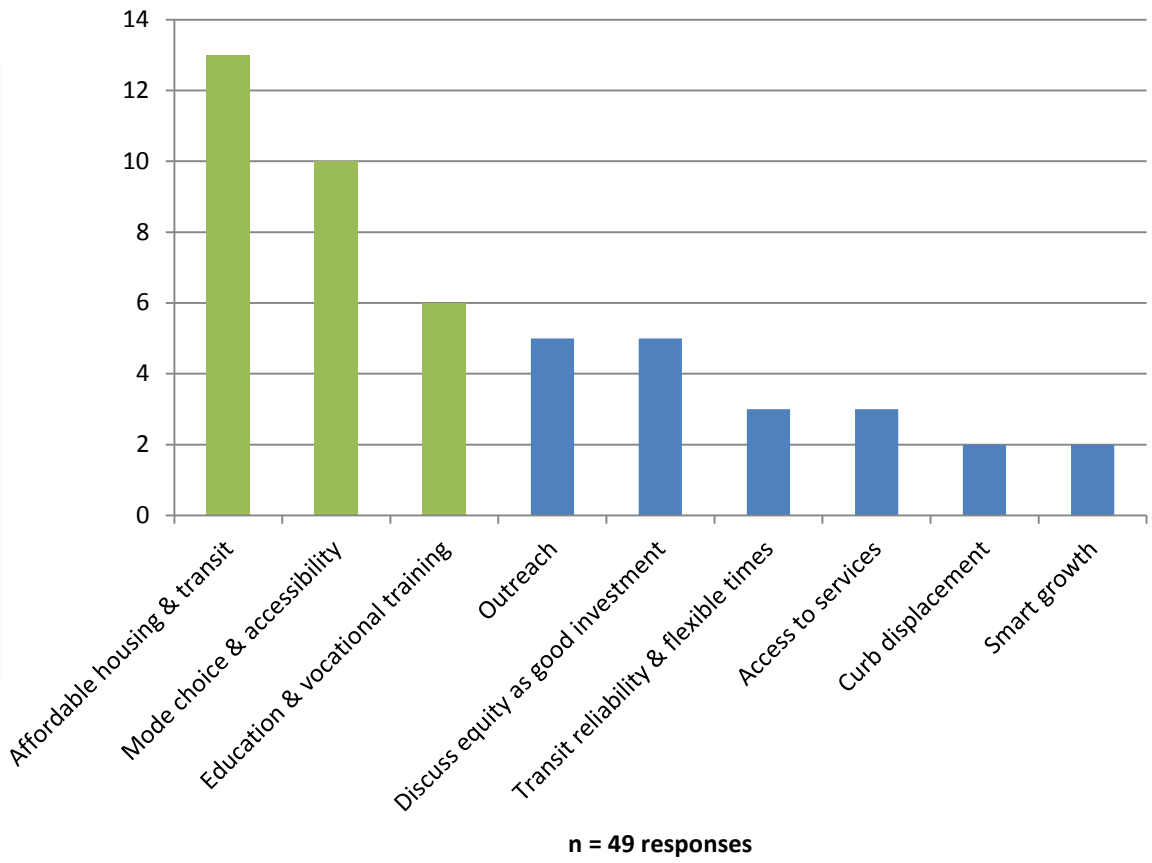
How can we ensure that all children receive a good education that prepares them for the jobs of the future no matter where they live in the region?



n = 62 responses

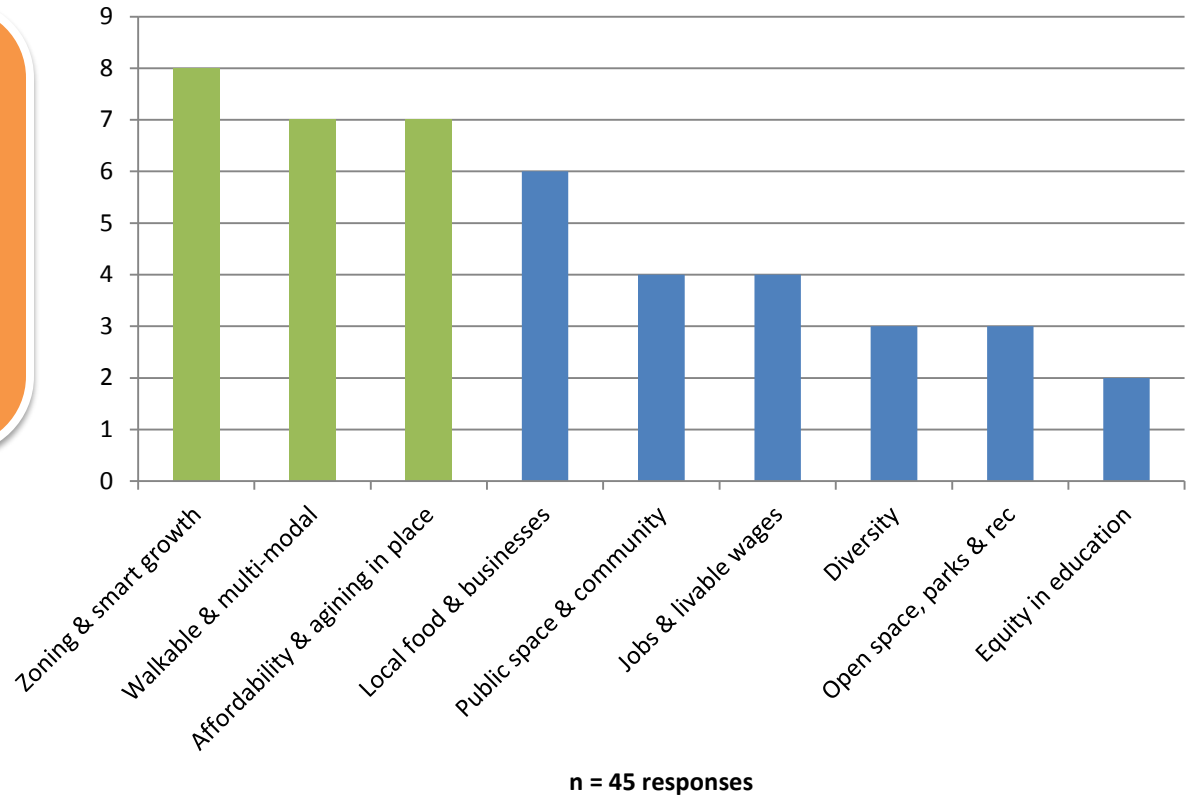
Equity

How can we ensure more equitable outcomes by reducing poverty, while increasing economic mobility and racially and socioeconomically integrated communities?



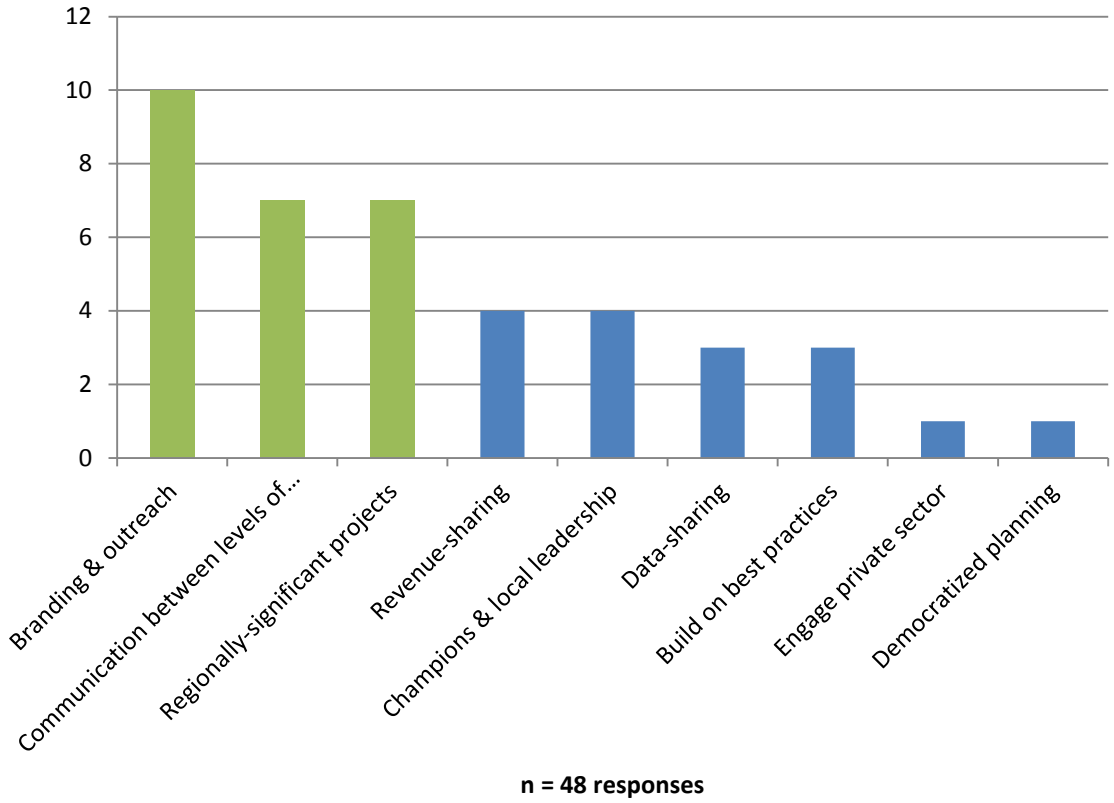
Livable Communities

How can we overcome obstacles or challenges to creating more livable communities?



Regional Cooperation & Government Efficiency

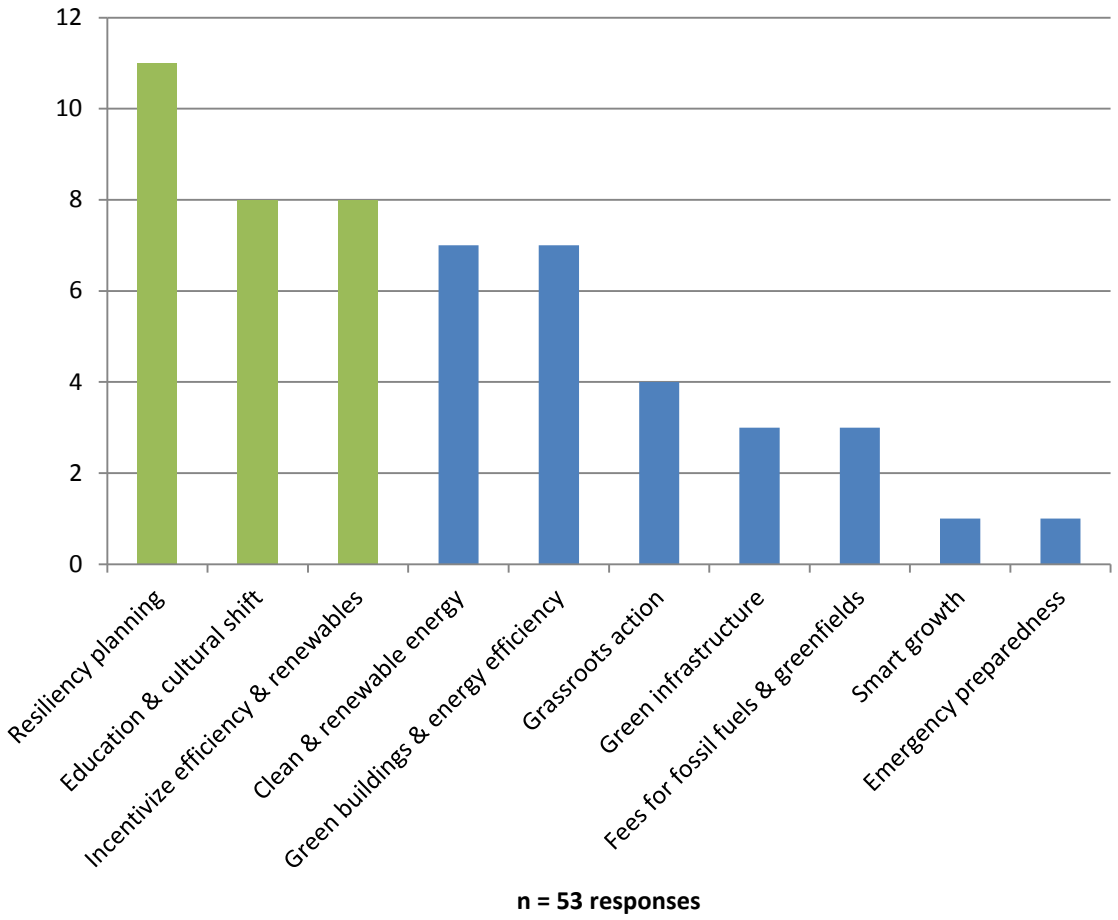
How can we increase regional collaboration and government efficiency?



n = 48 responses

Climate Change

What are the keys to mitigating and adapting to climate change?




EXIT

Futures Group Meeting

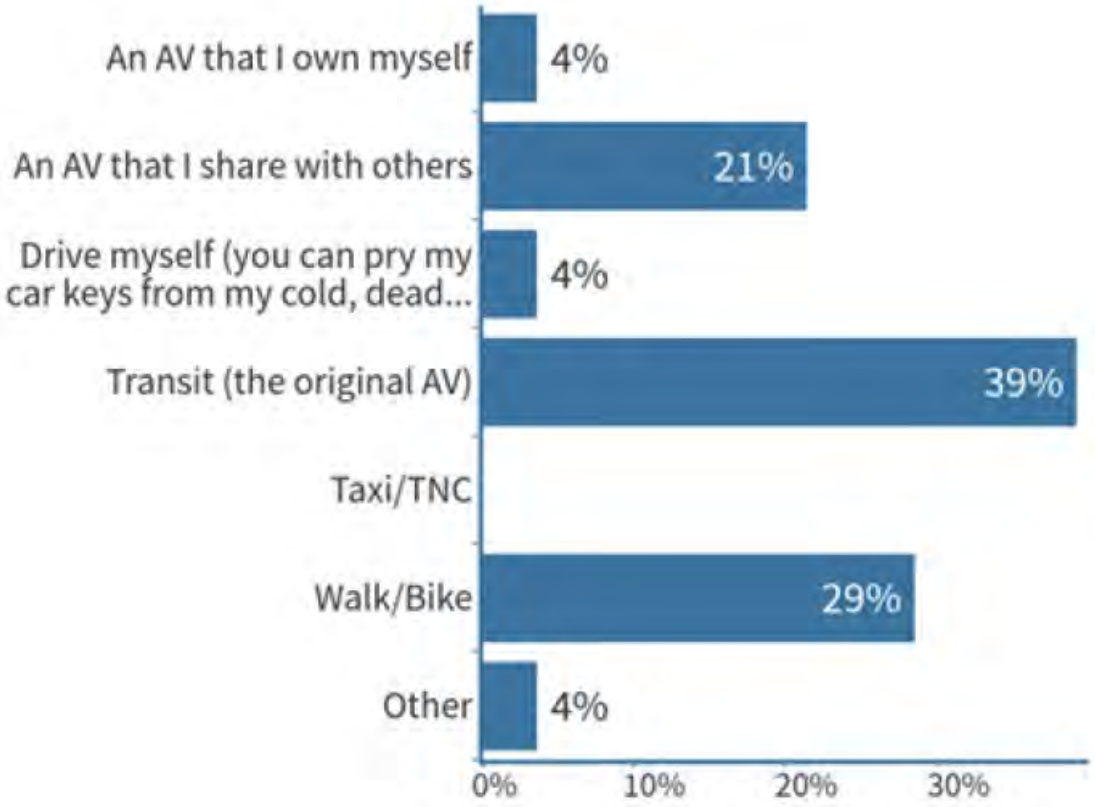
- Feb 2017
- Industry professionals & experts
- Highly Automated Vehicles

Futures Group Meeting

- The Future of Transportation, Econsult Solutions
- Planning For Automated Vehicles, WSP
- Preparing for automated vehicles, PennDOT

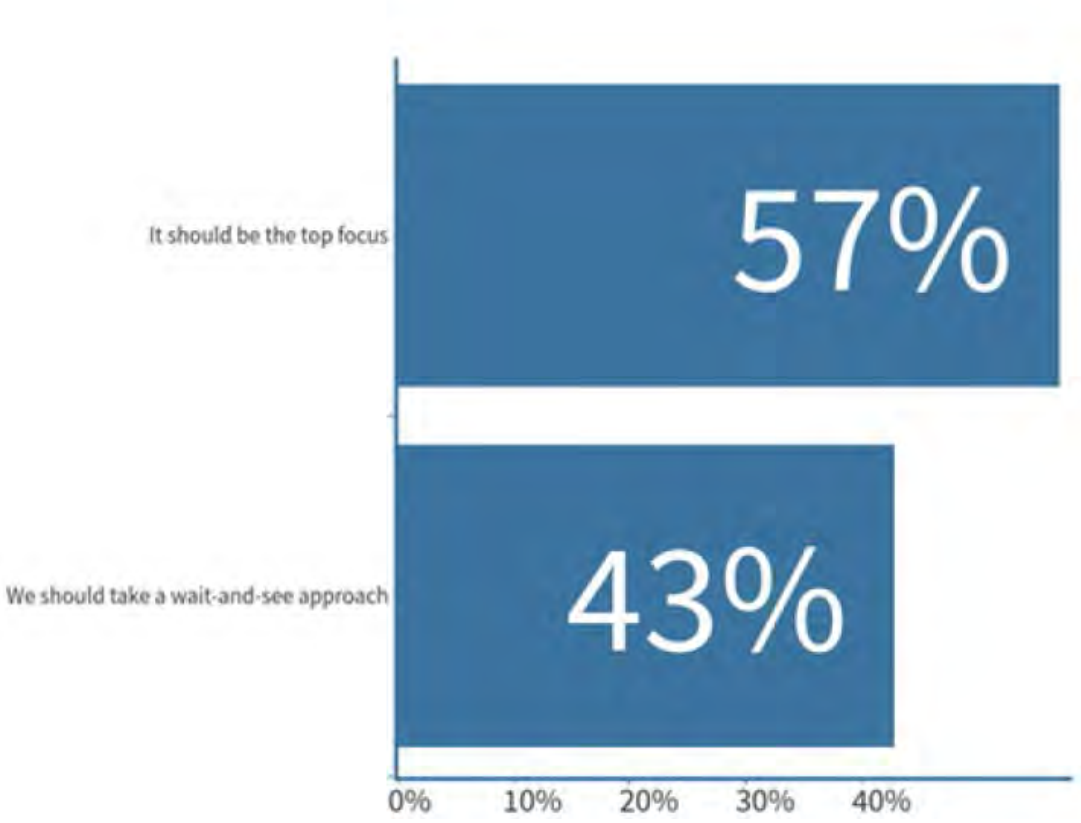
Futures Group Meeting

If HAVs were available right now, what would be your preferred way to get from this meeting to wherever you are going next?



Futures Group Meeting

How much should connected vehicle infrastructure be the focus of planning and near-term deployment?

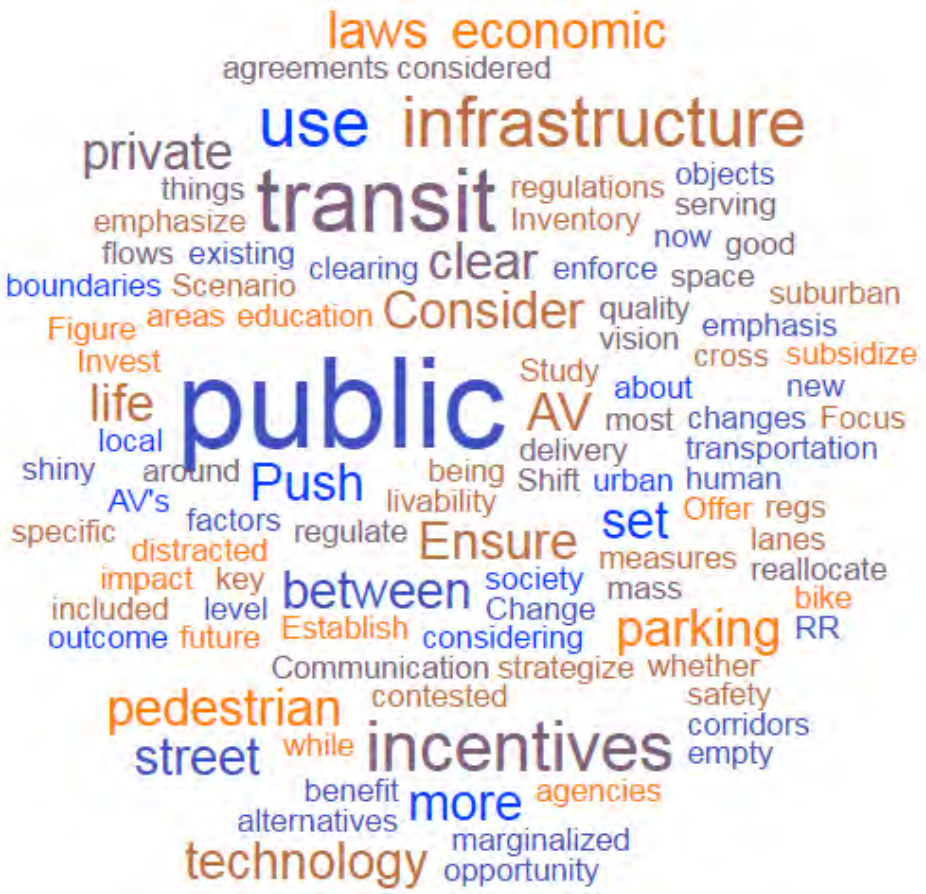


Futures Group Meeting

What will be the impacts of AV deployment?

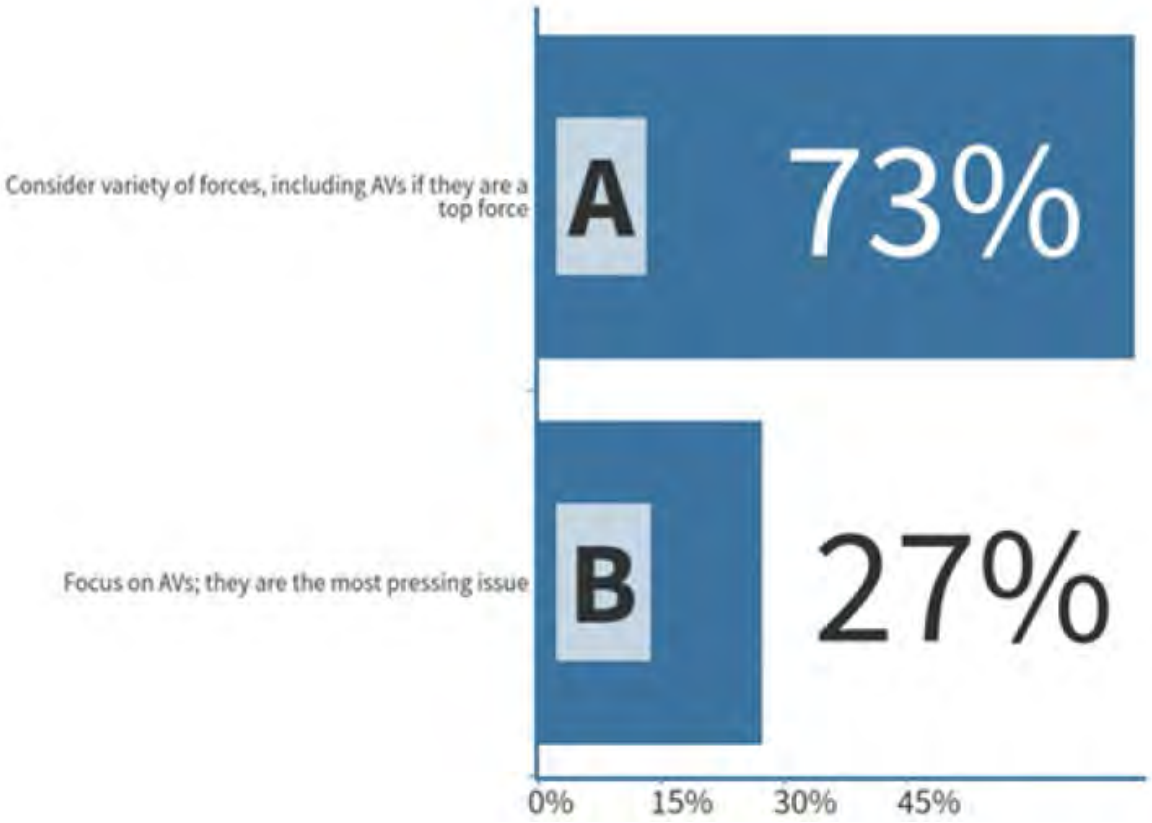
Futures Group Meeting

What other actions can regional agencies and local governments take to prepare for AV deployment?

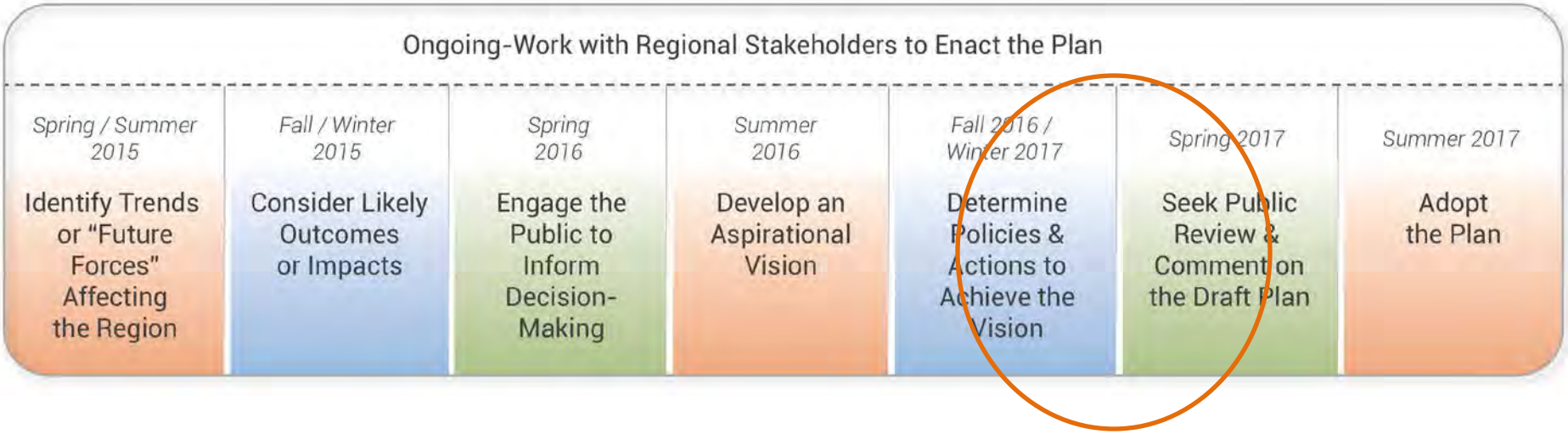


Futures Group Meeting

Should the next Futures Group scenario planning exercise recreate future forces, or focus explicitly on AVs?



Long-Range Planning Process



Next Steps for Long-Range Plan

- Finalizing draft needs assessment
- Project Evaluation
- Project Selection
- Conformity
- Public Comment Period (May 2017)
- Final Plan Adopted (July 2017)

Questions? Or Comments!

CONNECTIONS 2045
Plan for Greater Philadelphia

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