



dvrpc

working
FUTURES GROUP
 GREATER PHILADELPHIA

Scenario Planning Workshops
 November 17, 2022 & January 11, 2023

CONTENTS

Contents	1
Summary	4
Workshop 1	4
Workshop 2	4
Commonalities Across Focus Areas and Scenarios	5
Scenario: People Power	6
Focus Area: Community	6
Headlines	6
Challenges & Opportunities	6
Adaptive Strategies	7
Budget	8
Focus Area: Environment	9
Headlines	9
Challenges & Opportunities	10
Adaptive Strategies	11
Budget	11
Focus Area: Economy	13
Headlines	13
Challenges & Opportunities	13
Adaptive Strategies	13
Budget	14
Focus Area: Transportation	15
Headlines	15
Challenges & Opportunities	15
Adaptive Strategies	16
Budget	16
Scenario: Tech in the Driver's Seat	17
Focus Area: Community	17

Headlines	17
Challenges & Opportunities	17
Adaptive Strategies	18
Budget	19
Focus Area: Environment	20
Headlines	20
Challenges & Opportunities	20
Adaptive Strategies	21
Budget	21
Focus Area: Economy	22
Headlines	22
Challenges & Opportunities	22
Adaptive Strategies	23
Budget	23
Focus Area: Transportation	25
Headlines	25
Challenges & Opportunities	25
Adaptive Strategies	26
Budget	26
Scenario: Delayed Expectations	27
Focus Area: Community	27
Headlines	27
Challenges & Opportunities	27
Adaptive Strategies	28
Budget	28
Focus Area: Environment	29
Headlines	29
Challenges & Opportunities	29
Adaptive Strategies	30
Budget	30
Focus Area: Economy	31
Headlines	31
Challenges & Opportunities	31
Adaptive Strategies	32
Budget	32
Focus Area: Transportation	33
Headlines	33
Challenges & Opportunities	33
Adaptive Strategies	34
Budget	34
Scenario: Inclusive Tech	35
Focus Area: Community	35
Headlines	35

Challenges & Opportunities	35
Adaptive Strategies	36
Budget	36
Focus Area: Environment	37
Headlines	37
Challenges & Opportunities	37
Adaptive Strategies	38
Budget	38
Focus Area: Economy	39
Headlines	39
Challenges & Opportunities	39
Adaptive Strategies	39
Budget	39
Focus Area: Transportation	40
Headlines	40
Challenges & Opportunities	40
Adaptive Strategies	41
Budget	42
Participants	43
Area of Expertise by Registrant	44

SUMMARY

DVRPC convened a new Futures Working Group (FWG) in November—both in person at DVRPC’s office, and online via Zoom—to review the existing scenarios developed as part of the *Connections 2050* plan update and reported in [Dispatches from Alternate Futures: Exploratory Scenarios for Greater Philadelphia](#). The goal of the workshop was to build on the four scenarios with events and trend lines that had unfolded since the last scenario planning exercise took place in 2019.

The workshops were attended by 41 participants who reported expertise in one or more areas including Architecture or Urban Design, Business, Finance, or Real Estate, Climate Change, Communications or Marketing, Computer Science, Economics, Education, Energy, Engineering, Math, or Hard Sciences, Equity / Environmental Justice, Environmental Resources, Freight / Goods Movement, Labor or Workforce Development, Law, Planning, Public Health, Medicine, or Life Sciences, Research or Policy, Technology, Other or General Interest in Group. DVRPC staff were invited to participate as members of the region with subject matter expertise. Additional information on participants is available at the end of this document.

Workshop 1

DVRPC Long-Range Plan (LRP) facilitated the first of two workshops on November 17, 2022. LRP staff presented an overview of scenario planning and the existing scenarios to attendees, and reviewed some of the recent events that may have a high impact on the Greater Philadelphia region, and also have high levels of uncertainty around their future outcomes. FWG members were dispatched to breakout groups, each assigned a Focus Area from *Connections 2050* (Community, Environment, Transportation, or Economy) and two of the four scenarios (Delayed Expectations, People Power, Technology in the Driver’s Seat, and Inclusive Tech). Groups were asked to discuss and answer two prompts: 1) What other headlines would you add in this future? and 2) What are some challenges & opportunities in this future? Members recorded their responses in provided worksheets.

Workshop 2

LRP staff facilitated the second workshop on January 12, 2023. LRP staff reviewed Workshop 1 and additional recent headlines for consideration. Participants reconvened in their original breakout groups and reviewed their responses from Workshop 1. Groups were then asked to discuss and answer three prompts:

1) What other headlines, challenges and opportunities would you add to this scenario? 2) What adaptive strategies would you specifically recommend for this scenario to achieve the stated vision and goals? and 3) Breaking out a budget of 100%, how would you allocate regional transportation funds to each category's investment in this scenario through the year 2050?

Commonalities Across Focus Areas and Scenarios

The following sections provide a compilation of responses to the workshop prompts, organized by future scenario and Plan focus area. Among the responses, there were some commonalities that should be noted when updating the region's long-range plan. These include:

Common Opportunities:

- Better Data allows for leveraging of equitable efficiencies and more transparency among communities, governments, and other stakeholders.

Common Challenges:

- Inequality and bias for access to data, housing, and opportunity

Common Adaptive Strategies:

- Micro-Democracy: Community led efforts
- Standardized design guides for municipal implementation of energy efficient infrastructure and denser communities
- Addressing issues concerning equitable access to housing, income, and infrastructural improvements
- Increasing tech literacy and data access amongst ALL stakeholders

Funding Allocation:

- Resiliency, Bike and Pedestrian, and Microtransit project categories each receive at least 5% of total funding from the majority of groups

SCENARIO: PEOPLE POWER

Focus Area: Community

Headlines

- Light Rail Swamped Due To Chronic Flooding, Leaving Many Unable To Get To Jobs, Social Services.
- Unemployment Tops 10%, Increasing Automation Blamed For Increasing Layoffs In Transportation Services, Other Professional Services.
- Data Required For IRA Funding Applications.
- Decline In Cryptocurrency Cause In Latest Recession

Challenges & Opportunities

Challenges:

- Difficult to ward off rising tide toward automation; highly automated vehicles (HAVs)
- Difficult to get most vulnerable communities engaged
- Higher public engagement requires time - time to come to consensus; time for the democratic process to play out

Opportunities:

- Use funds from IIJA to enhance resiliency of light rail and other transportation infrastructure
- Increase outreach to community groups to educate about possible new funding sources from Inflation Reduction Act
- Communities can hire Sustainability Consultant-help prepare Sustainability Plan/local Climate Action Plan

Adaptive Strategies

- DVRPC template / guide for township Climate Action Plans and incentive for sustainability consultants to guide townships through implementing the plan
- Communication to residents in an unbiased and open way (democratic control of information and education)
- What are historic priorities in a people-powered world? Prioritize preserving community institutions.
- Incentivize strategies
- Annual Public Events (i.e. Earth Day) where tools and sponsorship opportunities are available to highlight successes, onboard volunteers, promote collaborations between private and public partnerships and schools
- Active and well-supported community groups/civic boards to inform the development towards the goals of:
 - Community Land Trusts
 - EAC Environmental Advocacy Council/Committee
- Engaged community leads to more vibrant communities (neighbors know each other, etc)
 - Virtual Forums for Public Engagement
 - Stakeholder Outreach
 - Community Climate / Zero Energy Co-Op
 - Funding for a Sustainability Consultant to create and guide communities through LCAP (Local Control and Accountability Plan) or ZCAP (Zero Carbon Action Plan)
- Greater governmental collaboration; multi-municipal coordination

Budget

Investment	Percent Allocation	Comments
Highway and transit rail preservation	5	
Local road and bus preservation	5	Electric Buses
Safety	15	This could use more definition
Transit and Roadway Operations	5	
Roadway expansion	5	
Rail & bus rapid transit expansion	5	
Microtransit	5	This could use more definition
Bicycle & pedestrian infrastructure	20	Add bike/walk lanes to promote local retail + community
Freight rail, ports, airport, and other goods movement facilities	10	
Technology (electric, connected, and highly automated vehicles, etc.)	15	EV Infrastructure
Resiliency (green stormwater infrastructure, elevating infrastructure)	10	Biophilic catchment and slow release stormwater systems
Other (please specify):		

Focus Area: Environment

Headlines

- Transit Ridership Reaches Fifty-year Highs
- Transit Ridership, Car Share, Bike Share Account for 50-90% of Travel
- 50% of Highway Funds Reallocated to Transit and Bike/ped
- 5 Municipalities (/residents vote to) Close Downtowns to Automobiles
- PA Votes to Allow Community Solars
- District Energy and Centralized Power
- EV Charging Infrastructure, No New Gas Hookups
- Offshore Wind Transmission Lines
- Solar Planning - Landfills and Mines
- Voters Ban Fossil Fuels in Municipal Buildings
- DVRPC Launches Greater Philadelphia Climate Corps Centered on Job Training for Communities Most Impacted by Climate Change and Focused on Replacing Lead in Water Mains
- Philadelphia Leads Nation in Water Capture and Reuse
- Community Farming Expands Across City
- Philadelphia Leads Nation in Spotted Lanternfly Eradication
- Consumers Demand Producer Responsibility to Spur Circular Economy
- Urban Forest vs. Heat: 1 Million Trees Planted
- Future Institutions Ban Chemicals
- Vibrant Dense Mega Cities with Divergent Village Communities Thrive

Challenges & Opportunities

Challenges:

- Readily available tech
- We have not planned for electrification of housing and automobiles. How do we make sure residents are not burdened?
- Residents are organizing against offshore wind transmission infrastructure. Does People Power slow clean energy transitions?
- Goats eat solar wires
- Higher water rates in privatized water utilities
- Electrification and planning and paying for electric cars
- Mechanism to incentivize density and fully fund dense locations
- How to facilitate community building to strengthen communities while balancing density/megacities (Philly-Trenton one big city)
- Consensus building, making decision-making less binary and reducing polarization
- Influencing consumption with people power

Opportunities:

- Congestion pricing
- Citizen power democracy, process centering equity
- District energy promoting community cohesiveness
- Abandoned wires can power Pennsylvania with solar
- Agri-solar: pastures beneath solar panels
- Expand Philly stormwater program to reduce flooding
- Meeting zero-waste goals. Composting as well as circular economy
- Residents lead on planting
- Reduced GHG by increasing energy efficiency

Adaptive Strategies

- Mega-cities
- Expedite democratic processes through social cohesion and easier voting
- Diversifying uses, village communities and increasing connectivity
- Require politicians to participate in public transit
- Incentivize environmental goals
- Fully funded equitable efforts
- Facilitate community building
- Variety of central sides
- Polarization
- Making places more accessible
- Build connections across
- Have to experience it to be involved in direct democracy
- Incentivise people to purchase homes in more dense communities, curb suburban sprawl
- Empower local communities

Budget

Investment	Percent Allocation	Comments
Highway and transit rail preservation	10	
Local road and bus preservation	10	
Safety	10	
Transit and Roadway Operations	10	
Roadway expansion	0	
Rail & bus rapid transit expansion	10	
Microtransit	5	
Bicycle & pedestrian infrastructure	10	
Freight rail, ports, airport, and other goods movement facilities	10	

Technology (electric, connected, and highly automated vehicles, etc.)	10	
Resiliency (green stormwater infrastructure, elevating infrastructure)	15	
Other (please specify): Participatory Budget		

Focus Area: Economy

Headlines

- Nationwide Highschool Competition Started in 2023 to Solve Systemic Issues of Climate Change Using Technology.
- America Leads Nations in STEM Education Spending to Support the Next Generation Economy (2030).
- Grassroots Protest Efforts Stress the Need for Greater Access to Jobs and Opportunities (2025).
- Local Universities Create Neighborhood-to-STEM Employment Programs Throughout Philadelphia to Capture Talent That Has Been Traditionally Locked out of Opportunities.
- Bellwether Development District, Large Warehouse Development Site near Trenton (15 million sq ft).

Challenges & Opportunities

Challenges:

- Current technologies are not innovating fast enough to deal with the destruction of coastlines and industries.
- Automation provides challenges through job displacement.
- Engage and energize young people in urban schools to pursue STEM education and climate change research.
- Fragmented governance prevents coordinated solutions to large-scale problems.

Opportunities:

- Automation provides the opportunity to augment work so workers can build products more efficiently - easier on an aging population.
- Engage and energize young people in urban schools to pursue STEM education and climate change research.

Adaptive Strategies

- Need policy structures nimble to create regulation proactively
- Reduce red tape
- Need tech experts to be in policy sphere though most tech companies aren't going to regulate themselves or pigeonhole their growth—ultimately it is in their best interest
- Advanced funding for industry groups within government
- Tech in infrastructure
- Equity and technology is challenging

Budget

Investment	Percent Allocation	Comments
Highway and transit rail preservation	TOP 3 PRIORITY	
Local road and bus preservation	TOP 6 PRIORITY	
Safety	TOP6 PRIORITY	More security officers / police.
Transit and Roadway Operations		
Roadway expansion		
Rail & bus rapid transit expansion	TOP 3 PRIORITY	
Microtransit		
Bicycle & pedestrian infrastructure	TOP 6 PRIORITY	
Freight rail, ports, airport, and other goods movement facilities	TOP 3 PRIORITY	
Technology (electric, connected, and highly automated vehicles, etc.)		
Resiliency (green stormwater infrastructure, elevating infrastructure)	TOP 3 PRIORITY	
Other (please specify):	PRIORITY	Workforce development / equity

Focus Area: Transportation

Headlines

- Elon Musk released from prison after 20 year term for fraud or completes final payment on \$1B fine

Challenges & Opportunities

Challenges:

- Affording transit with rising housing costs

Opportunities:

- Robust TOD/affordable housing integrated with transit, multimodal options
- Program to take successful pilots and make them permanent
- Immortalize through policy or infrastructure
- Integrate transit with different modes
- Technology driven and expensive to afford
- Public grassroots process to achieve result and data-driven decisions
- Make lifestyle changes and sacrifices to make changes
- More competition means more choices and accessibility
- Move forward with legislation

Adaptive Strategies

- Region adopts local design standards manual
 - memorializing ability to do innovative multimodal treatments
- Provide point of sale rebates for ebikes, etc
- Expand bike share, multimodal options
- Transit fare payments integrated with other forms of multimodal options
- Open access to information for all, re: funding, investment process, investment successes
- Boost competition by incentivizing local manufacture of transit vehicles
- Citizens council evaluating data to identify efficiencies, increase transparency , incorporate equity

Budget

Investment	Percent Allocation	Comments
Highway and transit rail preservation	5	
Local road and bus preservation	5	
Safety	20	
Transit and Roadway Operations	5	
Roadway expansion	0	
Rail & bus rapid transit expansion	10/15	
Microtransit	10	
Bicycle & pedestrian infrastructure	10	
Freight rail, ports, airport, and other goods movement facilities	5	Region more self-sustaining, so less dependency on global supply chains
Technology (electric, connected, and highly automated vehicles, etc.)	5	
Resiliency (green stormwater infrastructure, elevating infrastructure)	15	Focused on spreading benefits equitably
Other (please specify): Equity	5	housing , TOD

SCENARIO: TECH IN THE DRIVER'S SEAT

Focus Area: Community

Headlines

- Civilian Climate Corps Picks Up Steam in Urban Reforestation.**¹

Challenges & Opportunities

Challenges:

- Tech, AI, and Big Data are specialized areas of expertise that not many communities have in house. Hiring consultants is difficult without an example RFP or defined scope of services to reference, and a knowledgeable person on staff to vet proposals recommended.

Opportunities:

- Empower more community groups with more funding, education.
- A template could be shared across municipalities for soliciting RFPs for data based assessments.

¹ ** denotes a headline, challenge, or opportunity that appeared more than once among the workshop breakout groups

Adaptive Strategies

- AFFORDABLE HOUSING + RETIRED- Incentivize / Require zero energy and low carbon building practices i.e. Building Science and Data Based Design/ Build certified buildings) i.e. & Passive House and Zero Energy Ready (DOE programs) so utility bills and resiliency challenges during power outages do not devastate low income or retired occupants. Require energy reporting through utilities and incentivize Smart Homes/Smart Buildings. Use Data available from PHFA for low income multi family housing to prove energy models, energy reporting Funding: PHFA
- Using vacant buildings as a community co-op for zero-energy and environmental practices
- Empty office buildings can provide opportunities for affordable housing conversions - strategies for tax incentives to convert; provide affordable housing
- SCHOOLS Require or enable Schools to audit and report their energy usage and resiliency plans
- SCHOOLS Take advantage of Green Schools programs offered through the Green Building Councils and apply for funding to implement measures and hire consultants to guide them (funding for this now in the IRA and applications are currently being accepted)
- VIBRANT COMMUNITIES
 - Microgrid + Community Solar,
 - If the world is more digitally-focused, refocus day-to-day life in vibrant centers. Upzone for denser, mixed use areas near transit stations.
 - Convert parking spaces that are no longer needed (Self driving cars/car share) to public spaces.

Budget

Investment	Percent Allocation	Comments
Highway and transit rail preservation	5	
Local road and bus preservation	5	
Safety	10	
Transit and Roadway Operations	5	
Roadway expansion	5	
Rail & bus rapid transit expansion	5	
Microtransit	10	
Bicycle & pedestrian infrastructure	10	
Freight rail, ports, airport, and other goods movement facilities	10	
Technology (electric, connected, and highly automated vehicles, etc.)	20	
Resiliency (green stormwater infrastructure, elevating infrastructure)	15	
Other (please specify):		

Focus Area: Environment

Headlines

- Jersey Shore Retreat Accelerates
- Climate Retreat Data Is Behind a Paywall
- FEMA Flood Insurance Changes Coming
- New App Spurs Circular Economy Revolution
- Declining Prices of Solar and Offshore Wind
- How Do We Get Past Challenges With EV Lithium Batteries?
- Gmo-Based Crops Face Congressional Inquiry
- Vertical Gardens Increase in the Region
- Tech Helps with Food Waste/Recovery

Challenges & Opportunities

Challenges:

- Recycling materials (lithium batteries)
- Using tech as a crutch
- Transparency in data and privatization
- Public private partnerships and sale of data

Opportunities:

- Solutions to recycle solar panels/CNC economy
- Government payment for managed climate change-related retreats
- Data for connectivity of supply chain for users and producers
- Using data to track
- EV data/companies as model to address above
- City data on waste collection

Adaptive Strategies

- Government encourages open data access to foster climate retreat, circular economy, and renewable energy
- Government intervention or access to important data to facilitate use for climate purposes
- Improving transparency around big data to understand
 - Reducing waste, consumption patterns, streamlining supply chain
- Incentivizing tech- grants, solar and clear energy; exploratory options to address flaws in existing tech
- Leveraging current ecosphere to generate revenue around environmentally aware projects, to include full environmental cost/value for all products to shift or flip economics of production
- GHG pricing ,Regional Greenhouse Gas Initiative (RGGI) market
- Increasing value of environmentally beneficial products, action, industries
- Load costs of environmental impact into goods and services

Budget

Investment	Percent Allocation	Comments
Highway and transit rail preservation	10	
Local road and bus preservation	10	
Safety	5	
Transit and Roadway Operations	5	Does private/ big tech handle this in this scenario? If so lower %
Roadway expansion	0	There are enough roads
Rail & bus rapid transit expansion	15	
Microtransit	5	
Bicycle & pedestrian infrastructure	5	Important but less expense than others
Freight rail, ports, airport, and other goods movement facilities	20	Decarbonize using tech
Technology (electric, connected, and highly automated vehicles, etc.)	5	Private with regulation? May be handled by big tech need to make public
Resiliency (green stormwater infrastructure, elevating infrastructure)	20	Expensive and big

Focus Area: Economy

Headlines

- Tech Creates More Headaches Than It Solves - Employers Continue to Shed Jobs and Stagnate (2025).
- Modern-Day Luddites Infiltrating Congress in Greater Numbers Pushing for Greater Oversight and Control of Tech Companies (2030).
- Rapid Innovation Leads to Landmark Tech Solutions for Coastal Flooding. Billions in Property Damage to Be Averted in the Future (2040).
- Bellwether Development district, large warehouse development site near Trenton (15 million sq ft).

Challenges & Opportunities

Challenges:

- Rapid change and market focus leads to harsh externalities not in the best interest of society - not having appropriate regulation to meet the moment.
- Making the tech industry more inclusive and reflective of the populations they create products and services for.
- Lack of workforce development - digital database for training and employment
- Jurisdictional and logistical urban barriers - online access to government officials and GIS tools

Opportunities:

- To innovate new technologies and industries that are hard to imagine today, but can begin to solve systemic issues in employment and environment.
- Increasingly multi-ethnic and immigrant-driven economy can lead to greater business formation.
- Ordinances to guide Civilian Climate Corps - standard across county

Adaptive Strategies

- Need policy structures nimble to create regulation proactively
- Reduce red tape
- Need tech experts to be in policy sphere though most tech companies aren't going to regulate themselves or pigeonhole their growth—ultimately it is in their best interest
- Advanced funding for industry groups within government
- Tech in infrastructure
- Equity and technology is challenging

Budget

Investment	Percent Allocation	Comments
Highway and transit rail preservation	TOP 6 Priority	
Local road and bus preservation	TOP 6 Priority	
Safety	TOP 3 Priority	Transit passenger safety is key if transit ridership is going to increase;
Transit and Roadway Operations	TOP 3 Priority	Increase in lieu of roadway expansion; ITS
Roadway expansion	TOP 6 Priority	East Coast megalopolis, Philly central to this; need a beltway, this blocks growth and development; question on location; public safety issue on Philly transit. Expanding 76 could lead to a bottleneck when it merges into Vine St / Center City Expanding roadways is challenging in the built environment, requires takings, which are highly unpopular, and slows down project delivery.
Rail & bus rapid transit expansion	TOP 3 Priority	Double digit investment
Microtransit		
Bicycle & pedestrian infrastructure	TOP 6 Priority	
Freight rail, ports, airport, and other goods	TOP 6 Priority	Significant, greater efficiencies with growing logistics field

movement facilities		
Technology (electric, connected, and highly automated vehicles, etc.)	TOP 3 Priority	To improve operations in lieu of expanding roadways; equity a big issue
Resiliency (green stormwater infrastructure, elevating infrastructure)	Top	
Other (please specify): Equity	1	Equity

Focus Area: Transportation

Headlines

- Last Public Transit Line Bought by Tesla
- Fight Over Public Space Intensifies: Roads vs Transit vs Bike Lanes
- Car Ownership Hits 100 Year Low
- People Think We'll Get Flying Cares Before Congestion Pricing
- Digital Lives Not So Democratic After All

Challenges & Opportunities

Challenges:

- Privatization vs Public access
- Fight over public space intensifies
- equity - will only wealthy people have good access?
Increase disparity in mobility based on income
 - People who can access AVs vs. relying on crumbling infrastructure
- Private companies will rely on feds to maintain facilities
- Greater gap between haves and have notes and who sees benefits and who feels impacts (climate change impacts intensity are not felt evenly)
- Inequality: the haves and the have nots
- Who will opt in to share private info?

Opportunities:

- Congestion pricing has value with or without AVs
- If companies still rely on feds for maintenance, maybe feds have leverage
 - Could help organize conflicts for space (ped zones vs AV space)
- Possible health improvements
- Use of tech would give us data to tell us how things are distributed and opportunity to leverage to make it more equitable***
- Increased jobs

Adaptive Strategies

- Establish data bill of rights, opportunities for income if your data is used or choose privacy
- Break up large data companies
- Tax and regulate private infrastructure to fund public infrastructure
- Address barriers created by privatized infrastructure
- Tax and regulate private infrastructure
- Increase amount of info

Budget

Investment	Percent Allocation	Comments
Highway and transit rail preservation	10	
Local road and bus preservation	10	
Safety	25	
Transit and Roadway Operations	5	
Roadway expansion	0	
Rail & bus rapid transit expansion	5	
Microtransit	5	
Bicycle & pedestrian infrastructure	10	
Freight rail, ports, airport, and other goods movement facilities	5	Break up vertical integration
Technology (electric, connected, and highly automated vehicles, etc.)		
Resiliency (green stormwater infrastructure, elevating infrastructure)	25	
Other (please specify):	0	

SCENARIO: DELAYED EXPECTATIONS

Focus Area: Community

Headlines

- Last Patch of Farmland Sold to Multifamily Developer
- Neo Feudalism Reemerges
- Informal Settlements Fastest Rising Housing Option in Region
- Corporate Ownership of Rental Property Increases Dramatically as Private Ownership becomes Unfeasible
- Slums See Most Impacts of Climate Change
- MillCo Taken Over by Informal Housing Settlement

Challenges & Opportunities

Challenges:

- Corporations dominate zoning and distributed suburban markets
- Police state potential
- Informal Settlements
- Older utility infrastructure
- Uncertainty in financial markets
- No consistent state support
- Political uncertainty
- Population migration

Opportunities:

- Informal governance
- Formalization of Informal Housing

Adaptive Strategies

- Embrace storytelling to build community and consensus
- Establish consistency of goals through political whiplash
- Build community halls for communal gathering events
- Leverage and amplify big events like Eagles Superbowl win to unite the region
- Organize civic volunteering events
- Regional book club
- Reparations

Budget

Funding Allocations were not provided for this scenario.

Focus Area: Environment

Headlines

- Florida Population Drops by 25% And Residents Move North to Find Dry Land
- Buffalo Population Surges
- Climate Migration in the DVRPC Area
- Politically Potentially Rollback to Climate Policies, Depending Who's in Power. E.g., Defunding the EPA
- Philadelphia Airport May Be Relocated Because of Flooding?

Challenges & Opportunities

Challenges:

- Underfunded governments not able to provide services
- Capability to contain development because of sprawl
- Isolated communities, associated equity impacts including racial equity
- Degrading infrastructure reinforces fragmentation of society
- Access to food; food shortage with increasing population
- Heating

Opportunities:

- Building local networks with care and solidarity; communities care for each other when the government is not taking their responsibility.
- Climate migration; use this opportunity to redistribute population within cities so that commute time can be reduced
- Rewilding urban corridors so that they cannot be used for freight
- Designing buildings more resilient and more energy efficient and designing the neighborhood with green space

Adaptive Strategies

- How to account for increased population?
- Climate vulnerable areas have a higher percentage of elderly population.
- Climate migration impacts; Pineland the new Everglades?

Budget

Allocation priorities were not provided. The group presented the following comment: “More toward maintenance; new projects will be difficult. More emergency funding. Trimming the infrastructure network will be necessary. More selective about what we will be able to maintain and rehabilitate.”

Focus Area: Economy

Headlines

- Jobs Gap Increases for Those Aged 50–75 (2030)
- Workers Bored - Many Entry Level Workers Find
- Social Safety Net Programs Gaining Support Amid Slow Economic Growth (2035)
- Employers Seek New Dynamics With Employees (2025)
- Government Finds New and Creative Ways to Tax Freelancers
- Is 5 Jobs Enough? Some Say That They Struggle to Pay Bills Even With Multiple Gigs
- Where Is the Middle Class?
- Saving for What Future: Asset Caps and Lack of Wealth
- Employment Driving the Access to Asset Building
- More Leave Workforce as Inflation Grows
- Trust in Democracy Reaches All Time Low, Paralyzing (2050)
- Care Workers Strike for OT Protections and Higher Wages (2020s)
- 5G and 6G Conspiracy Theorists Destroy Ground-Level Transmitters, Halts Economy
- Housing Crisis Solved by 3D Printed Homes
- Frugal Is the New Black
- Multigenerational Homes Now the Majority of Households (2040)
- Fortune 500 Companies Compete for Talent by Offering Internal Paths, Training and Skill In-Ouse
- UBI Pilots Tracking Positively

Challenges & Opportunities

Challenges:

- Racial harmony is skin deep (identity politics and Hollywood help us feel better but the “have-nots” have less
 - Ex: easier to choose kamal than do racial equity policy across the board

Opportunities:

- Fortune 500 companies end subcontracting
- Education credentials are freed from brick and mortar places
- Publicly-funded campaigns encourage alternatives
- Diverse economies and regionalized economies win out

Adaptive Strategies

- Enhance workforce skills- local spending in workplace
- Green the economy- local production and self sustaining regions
- Support small business
- Make global connections
- Reduce poverty- subsidize a local economy

Budget

Allocation priorities were not provided. The group offered the following comment: "Platform cooperatives (vanpools)."

Focus Area: Transportation

Headlines

- I-95 Shutdown Due to Automated Vehicle System Failing
- Children Hospitalized at Record Rates Attributed to Metals in EV Batteries, Located Near Sites of Manufacturing
- Federal Program to Charge EVs Leads to Gentrification Concerns

Challenges & Opportunities

Challenges:

- Big offices are moving from Philadelphia to other locations
- People have difficulty accessing daily needs or facilities of important use
- Environmental concerns and which communities will feel the effects of it disproportionately

Opportunities:

- Increase the need for urban planning
- More opportunities to use alternate routes to fulfill travel demand
- Increase demand for multimodal transportation
- More time to plan for future tech advancements

Adaptive Strategies

- Focus investments on projects that have support from both parties (ex/ sidewalk/walkability seems to be supported by the majority of decision-makers)
- Limits on single-family housing can lead to more densely developed areas, supported by transit,
- Resiliency
- State or local govt enter into public/private partnerships to install user-friendly, innovative transportation tech on our streets
- Business community engages public sector to push for innovation and public investments

Budget

Investment	Percent Allocation	Comments
Highway and transit rail preservation	40	Easiest to get support
Local road and bus preservation	40	Easiest to get support
Safety	2	Also an easy sell
Transit and Roadway Operations	2	
Roadway expansion	2	May be difficult to sell
Rail & bus rapid transit expansion	2	May be difficult to sell
Microtransit	2	Possibly some, but only from private sector
Bicycle & pedestrian infrastructure	2	Not more than current levels
Freight rail, ports, airport, and other goods movement facilities	2	Increase in investment. Cargo is widely considered to be important.
Technology (electric, connected, and highly automated vehicles, etc.)	2	
Resiliency (green stormwater infrastructure, elevating infrastructure)	2	Not more than current levels
Other (please specify):	2	

SCENARIO: INCLUSIVE TECH

Focus Area: Community

Headlines

- Malls Across Region Re-Zoned for Multifamily Housing
- Micro Transit Ridership Increases
- Healthcare Wait Decreases as Telehealth Expands
- Contributing Immigration- Accelerating Dispensation With Aide of Technology
- Immigrant Communities Develop Own Community Centers
- Tech Offers Opportunity for People to Integrate Into New Community on a Faster Timelines
- Competing for Residents/Quality of Life
- Greater Integration of Community Ethnicities
- Housing Reform Enables Greater Housing Choices
- Montgomery Mall Repurposed as Mixed Use Community Center With Microtransit Hub
- Universal Healthcare Has Waitlist Down to Record Lows as Telehealth Expands and New Health Centers Open
- City Opens 26th Health Center
- Biases in lending algorithms recovered in 2030
- Structural racism identifying factors for community trauma
- Access to digital opportunity

Challenges & Opportunities

Challenges:

- Unequal access to resources

Opportunities:

- Efficiencies in working allow for more leisure time
- Wealth building
- Overcoming bias and digital divide
- More health opportunities

Adaptive Strategies

- Independent bias review for algorithms
- Review credit criteria , make them plain language
- Improve accessibility
- Virtual clearinghouse for options for housing- co-housing, multigenerational
- Dissolution of single family zoning
- Tech apprenticeships in community schools
- Education more accessible with community education programs
- Cultural resources as a way to preserve communities

Budget

Investment	Percent Allocation	Comments
Highway and transit rail preservation	15	Preserving existing really important
Local road and bus preservation	15	Already committed
Safety		
Transit and Roadway Operations	15	
Roadway expansion		
Rail & bus rapid transit expansion	10	
Microtransit	5	
Bicycle & pedestrian infrastructure	15	
Freight rail, ports, airport, and other goods movement facilities		
Technology (electric, connected, and highly automated vehicles, etc.)	10	
Resiliency (green stormwater infrastructure, elevating infrastructure)	15	Prioritizing green stormwater, elevating infrastructure

Focus Area: Environment

Headlines

- Carbon Tax Is Still Not Adopted. May Be Seen at the International Level. International Communities Adopt International Minimum Carbon Tax.
- Proactive Retreat of Coastal and Low-Lying Areas. Extreme Weather Events Are Becoming an Increasing Challenge to Infrastructure.
- Greater Equity With AV and Electrical Vehicles With IIJA/BIL
- Low-Cost Sensors for Pollutants
- Land Use and Environmental Impacts, Enabling Rural Areas to Thrive Without Consuming a Lot of Lands; Rural Broadband

Challenges & Opportunities

Challenges:

- Lack of tech-enabled rural development
- Carbon tax is a politically challenge
- No room for retreat
- Resource acquisition
- User acceptance and capability
- Increasing suburbanization impacts on the environment for those working at home? Place of employment creates stratification; lack of opportunity.
- Sustained rural development needs to be in centers or clustered.
- Infrastructure for broadband in rural areas is needed to allow for access and persons to prosper.

Opportunities:

- Rural development opportunities
- Autonomous transits are important; labor cost is the most significant
- Personal rapid transit is still a potential

Adaptive Strategies

Adaptive strategies for this focus area were not provided.

Budget

Funding Allocations were not provided for this scenario. The group provided the following comments:

Investment	Percent Allocation	Comments
Highway and transit rail preservation		
Local road and bus preservation		
Safety		More of a “lens” than a funding strategy
Transit and Roadway Operations		
Roadway expansion		
Rail & bus rapid transit expansion		
Microtransit		
Bicycle & pedestrian infrastructure		
Freight rail, ports, airport, and other goods movement facilities		
Technology (electric, connected, and highly automated vehicles, etc.)		Technology is more of a “lens” given for each mode investment.
Resiliency (green stormwater infrastructure, elevating infrastructure)		More of a “lens”
Other (please specify):		Amenities: Quality of Life enhancements

Focus Area: Economy

Headlines

Headlines for this focus area were not provided.

Challenges & Opportunities

Challenges:

- Hearts and wallets open to creating a community

Opportunities:

- Tech to help invest in local community and economy
- Public becomes information literate
- Liaison for Learning New Tech

Adaptive Strategies

Adaptive strategies for this focus area were not provided.

Budget

Investment priorities for this focus area were not provided.

Focus Area: Transportation

Headlines

- Circuit Completed Ahead of Schedule
- Household Incomes Increase as Travel Options Increase
- Roosevelt Blvd
- Smart Streets in Center City Revolutionize Dining Opportunities
- Too Much Technology Leads to Concern Over Job Opportunities
- Congress Advances Bill to Support Transportation Funding Over Loss of Carbon Tax Revenue
- Satisfaction of Technology Varies Among Races

Challenges & Opportunities

Challenges:

- Does VMT actually make sense as funding mechanisms in this scenario shift to where congestion is? Could be challenging for policy makers
- In a more multimodal world, we need to change how we look at throughput
- Funding mechanisms for transportation
- How does change in investment impact rural/suburban areas?
- Housing challenges impacts→ how does the built environment keep up, especially considering climate impacts
- Does growth in the city eventually put strain on infrastructure and lead to another cycle of suburban growth
 - How to keep things affordable as growth

Opportunities:

- High quality transit, more options for local and intracity,
 - focusing more on # of people served.
- We have the tech tools to study
- Funding distributed more equitable
- Investments in affordable housing and zoning changes to have more mixed use.
- Use of tech could allow for more community opportunities ie. adaptable streets, instant reporting of traffic problem,
- Clear picture of action problems
- Apply tech other forms of transit other than cars ie. high speed transit
- Infrastructure and economic development
- Fitness programs - exercise, food

- occurs
- How to incentivize growth while balancing affordability and economic opportunity
- Concern over race and income
- Disparate benefits as concentration of benefits among different income groups
- Economic challenges in communities that lack the infrastructure
- Displacement and gentrification are ongoing concerns**
- Too many podcasts - less human connection and interaction
- Siloed apps for using transit and microtransit

- Representation - promote tech and STEM studies
- Telecommunication work- voice concerns and have input, choose where they live based on community rather than live close to work

Adaptive Strategies

- Create completely connected ITS(?) and payment network
- Look into innovative ways to facilitate new technologies and see how well they work/ what the public thinks
- Increase variety of transportation options to support diverse growth patterns (suburbs vs. urban)
- State gives muns more options for how to raise revenue, tools for making investments
- Increase more options in general (as long as they're equitable) for various agencies
- Widen roads to accommodate all users
- Tactical urbanism?

Budget

Investment	Percent Allocation	Comments
Highway and transit rail preservation	28	
Local road and bus preservation	28	
Safety	5	
Transit and Roadway Operations	4	
Roadway expansion	6	
Rail & bus rapid transit expansion	4	
Microtransit	6	
Bicycle & pedestrian infrastructure	4	
Freight rail, ports, airport, and other goods movement facilities	4	
Technology (electric, connected, and highly automated vehicles, etc.)	6	
Resiliency (green stormwater infrastructure, elevating infrastructure)	4	
Other (please specify):	1	

PARTICIPANTS

First Name	Last Name	Organization	First Name	Last Name	Organization
Alison	Hastings	DVRPC	Eric	Marsh	Mayor's Commission On African American Males
Alison	Giles	Souderton Connects & Upper Dublin Township	Ethan	Fogg	DVRPC
Amy	Cornelius	GreenBeams	Jameel	Worthy	Steadfast Entities LLC
Amy	Bernknopf	DVRPC	Jelena	Matic	Inch and Meter
Amy	Verbofsky	DVRPC	Jennifer	Dougherty	SEPTA
Andrew	Svekla	DVRPC	Jesse	Buerk	DVRPC
Andrew	Turner	MCPC	Judith	Robinson	Strawberry Mansion Civic Association
Anne	Gemmell	A-Gemm Consulting	Justin	Dula	PA DEP
ANNMARIE	VIGILANTE	Langan Engineering	Justin	Dula	PA DEP
Ashley	Ebrahimi	Philadelphia Water Department	Karen	Cilurso	DVRPC
Benjamin	She	5th Square	Karin	Morris	DVRPC
Bill	Matulewicz	PPTF Burlington County	Kejsi	Shahaj	Economy League of Greater Philadelphia
Bonita	Cummings	Strawberry Mansion Community Concern	Kiersten	Mailler	Economy League of Greater Philadelphia
Bradley	Flamm	West Chester University of PA	Kim	Korejko	DVRPC
Brian	Jacson	NJDOT	Kimberly	Dean	DVRPC
Christian	Regosch	Bucks County Planning Commission	Lamarr	Kendrick	EDO
Christina	Miller	Montgomery County Office of Public Health	Lexx	Romanczuk	UPenn former staff
Dan	Farina	DVRPC	Manuel	Portillo	The Welcoming Center
Daniel	Engelberg	MIT	Mark	Stout	Mark L. Stout Consulting
Daniel	McGlone		MaryAnn	Sandone	DCTMA
David	Wagner	Greenman-Pedersen, Inc.	Matthew	Edmond	Montgomery County Planning Commission
Donna	Carney	Philadelphia City Planning, Citizens Planning Institute	Matthew	Lawson	County of Mercer, NJ
Doug	Robbins	AECOM	Matthew	Popek	Montgomery County Planning Commission
Sarah	Hagy	The Electrical Association of Philadelphia	Michael	Schultz	PA Turnpike Commission
Sean	Greene	DVRPC	Miles	Owen	DVRPC
Shannon	Pendleton	Sanderson Sustainable Design	Mohammad	Islam	NJDOT
Shiny	Mathew	JMT	Nicole	Somers	Inch and Meter
Steve	Baron	DVRPC	Patrick	Morgan	Philadelphia Parks & Recreation
Steve	Krug	Krug Architects	Paul	Borokhov	
Steve	Wray	Econsult Solutions	Peter	Barnard	City of Philadelphia DPD + DPH
Susan	Bachor	Delaware Tribe of Indians	Rebecca	Ross	Delaware County Planning Department
Susan	Patterson	Philadelphia Water Department	Rich	Freeh	Green Building United
		Mount Laurel Fire Department / Burlington County Incident			
Todd	Evans	Management Task Force	Richard	Rabinowitz	NJDOT
Tom	Houck	NJDOT	Samantha	Porter	Federal Reserve Bank of Philadelphia
Zach	Nemec	Pennsylvania Sea Grant			
Zhiwei	Chen	Drexel University			

Area of Expertise by Registrant

Area of Expertise (check all that apply)

75 responses

