



Hybrid Scenario Planning Workshop November 17, 2022

WORKSHOP 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 based on events and trend lines that had unfolded since the last scenario planning exercise took place in 2019. Workshop 2 will be held on January 12, 2023 at 10-11:30am to discuss contingent strategies and investments to address the challenges and opportunities of each scenario identified in Workshop 1.

Attendees

The workshop was attended by 41 participants who registered for the workshop via google form and 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. Attendees were:

First Name	Last Name	Organization	First Name	Last Name	Organization
Benjamin	She	5th Square	David	Wagner	Greenman-Pedersen, Inc.
Anne	Gemmell	A-Gemm Consulting	Jelena	Matic	Inch and Meter
Christian	Regosch	Bucks County Planning Commission	Mark	Stout	Mark L. Stout Consulting
Peter	Barnard	City of Philadelphia DPD + DPH	Eric	Marsh	Mayor's Commission On African American Males
MaryAnn	Sandone	DCTMA	Andrew	Turner	MCPC
Rebecca	Ross	Delaware County Planning Department	Daniel	Engelberg	MIT
Zhiwei	Chen	Drexel University	Matthew	Popek	Montgomery County Planning Commission
Jesse	Buerk	DVRPC	Todd	Evans	Mount Laurel Fire Department / Burlington County Incident Management Task Force
Kimberly	Dean	DVRPC	Tom	Houck	NJDOT
Dan	Farina	DVRPC	Mohammad	Islam	NJDOT
Ethan	Fogg	DVRPC	Bill	Matulewicz	PPTF Burlington County
Miles	Owen	DVRPC	Shannon	Pendleton	Sanderson Sustainable Design
Andrew	Svekla	DVRPC	Jennifer	Dougherty	SEPTA
Amy	Verbofsky	DVRPC	David	Heller	SJTPO
Kejsi	Shahaj	Economy League of Greater Philadelphia	Alison	Giles	Souderton Connects & Upper Dublin Township
Samantha	Porter	Federal Reserve Bank of Philadelphia	Judith	Robinson	Strawberry Mansion Civic Association
Rich	Freeh	Green Building United	Lexx	Romanczuk	U Penn former staff
Amy	Cornelius	GreenBeams	Paul	Borokhov	

Agenda

DVRPC Long-range Plan (LRP) staff presented an overview of scenario planning and the existing scenarios to attendees, and reviewed some of the recent events that would 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. 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 and staff have compiled them in the following pages.

PEOPLE POWER

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)

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

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

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

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

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.

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.

TRANSPORTATION

No responses were provided for this focus area under this scenario.

PEOPLE POWER

TECH IN THE DRIVER'S SEAT

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

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).

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.

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.

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:

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Opportunities:

- Solutions to recycle solar panels/CNC economy
- Government payment for managed climate change-related retreats

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)

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

DELAYED EXPECTATIONS

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

Opportunities:

- Informal governance
- Formalization of Informal Housing

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

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

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

INCLUSIVE TECH

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

Challenges & Opportunities

Challenges:

Opportunities:

- Efficiencies in working allow for more leisure time

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

Opportunities:

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

ECONOMY

No responses were provided for this focus area under this scenario.

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

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

- How to keep things affordable as growth 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

- Fitness programs - exercise, food
- 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