

PERFECTING POLICY WITH PILOTS WEBINAR

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220 PILOT PROJECTS ASSESSED + 11 CASE STUDIES COMPLETED = 31 LESSONS LEARNED AND 10 RECOMMENDED ACTIONS



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PERFECTING POLICY WITH PILOTS

MOBILITY OF PEOPLE

- Micromobility
- Transportation Network Company Partnerships
- Microtransit
- Passenger Autonomous Vehicles

MOBILITY OF GOODS

- Autonomous Delivery Devices and Vehicles



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PERFECTING POLICY WITH PILOTS

METHODS

- Technical advisory committee
- Literature and policy review
- Online scan of 220 pilots
- 11 case studies
- Private and public sector interviews

LIMITATIONS

- Pre-Covid-19



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PERFECTING POLICY WITH PILOTS

FOCUS OF ASSESSMENT AND CASE STUDIES

- Common goals and purpose of pilots
- Governance structures
- Data sharing
- Contracts and procurement
- Equity, health and safety, environmental, and economic outcomes



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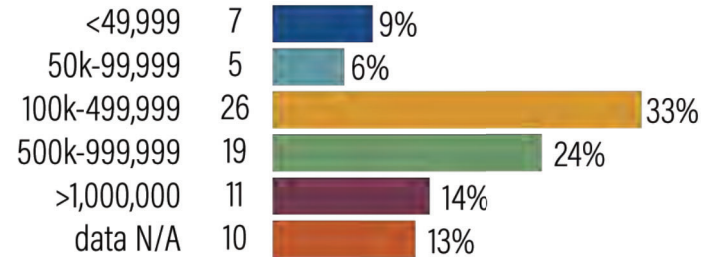
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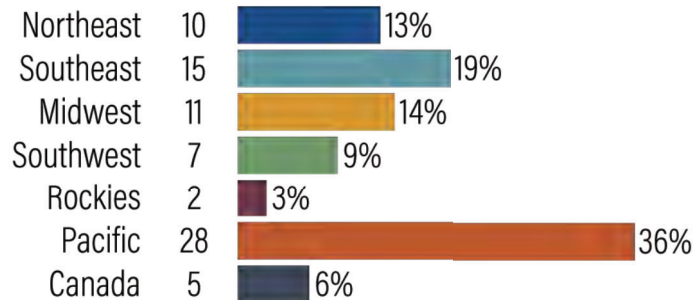
PERFECTING POLICY WITH PILOTS | MICROMOBILITY

COMMUNITY

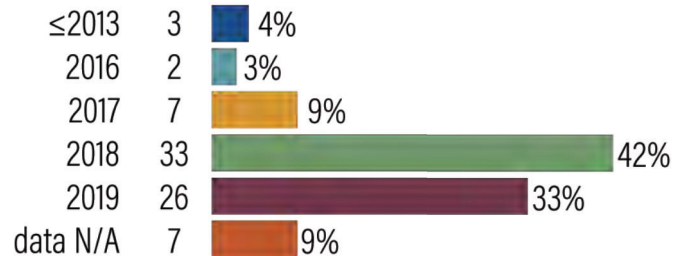
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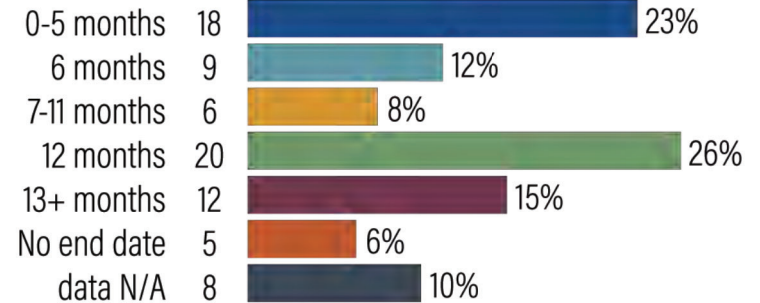
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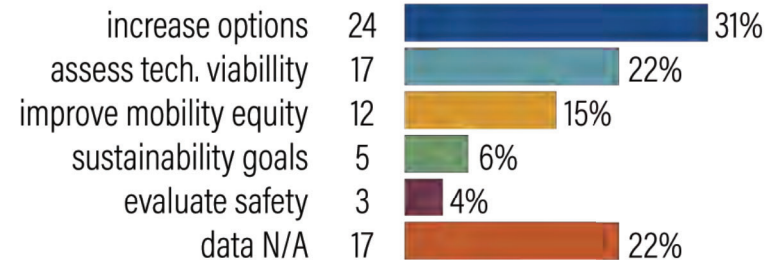
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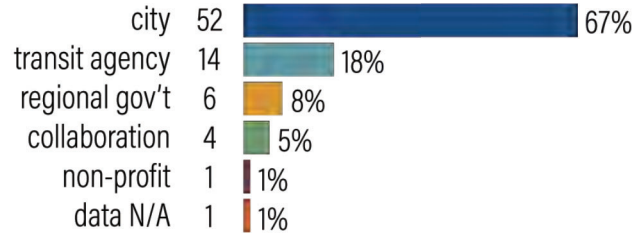


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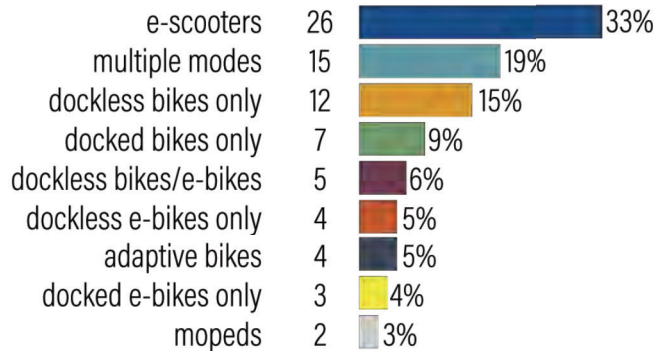
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PERFECTING POLICY WITH PILOTS | MICROMOBILITY

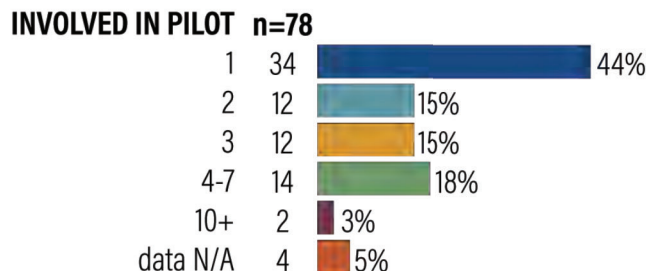
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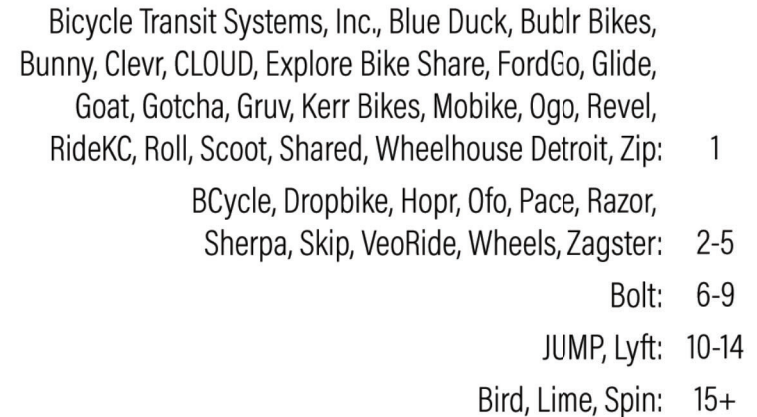
VEHICLE TYPE n=78



NO. OF PROVIDERS INVOLVED IN PILOT n=78



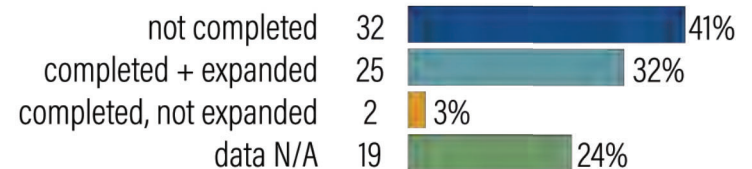
PROVIDERS BY NO. OF PROJECTS



DATA REQUIREMENT n=78



OUTCOME: STATUS n=78



OUTCOME: FINAL REPORT PUBLISHED n=78



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PERFECTING POLICY WITH PILOTS | MICROMOBILITY

EQUITY OUTCOMES

- Low income plans
- Ability to book/use devices w/out smartphones, credit cards, bank accounts
- Adaptive equipment
- Distribution in underserved neighborhoods

HEALTH & SAFETY OUTCOMES

- Helmet requirements
- Speed limits
- Age restrictions, etc.

ENVIRONMENTAL OUTCOMES

- Reduce GHG emissions
- Reduce VMT
- Increase transit ridership (1st/last mile)

ECONOMIC OUTCOMES

- Use fees to improve bike/ped infrastructure
- Consider labor policies when evaluating permit applications



PERFECTING POLICY WITH PILOTS | CASE STUDIES

MICROMOBILITY

- Lack of regulations was generally viewed as resulting in a “wild west” environment and negative outcomes
- Communities are still determining the “right” level of regulations
- There is likely a “sweet spot” for the number of e-scooter companies operating in a city, depending on market size and government management
- Companies like incentives used for compliance and accountability mechanisms

TNC PARTNERSHIPS & MICROTRANSIT

- What is the right level of subsidy for services provided by TNCs and microtransit?
- Microtransit companies are competing with TNCs – and winning if they provide data that TNC companies are unwilling to provide

PASSENGER & AV GOODS DELIVERY AVS

- Direct partnerships were used on a limited basis
- Passenger AV pilots are mostly slow speed shuttles
- Many companies have limited capacity to pilot as they are still testing the technology and use cases.



PERFECTING POLICY WITH PILOTS

RECOMMENDED ACTIONS

1. Define the pilot goals and outcomes at the beginning of the process and make sure every pilot activity is designed to achieve them.

Goals	Micromobility	TNC Partnerships	Microtransit	Passenger AVs	AV Delivery
Facilitate first/last-mile connections	X	X	X		
Improve mobility equity and access	X	X	X		
Access the viability of new technology	X		X	X	
Gauge public interest	X			X	X
Achieve environmental or sustainability goals	X		X		
Increase transportation options	X		X		
Fill service gaps / provide occasional or specialty trips		X	X		
Identify potential use cases				X	X
Test the technology				X	X
Be innovative / part of the new economy				X	X
Evaluate and improve safety outcomes	X				
Operate as a replacement for fixed-route service, especially in rural or sparsely populated areas		X			
Increase transit ridership			X		
Learn how city processes, policies, and programs may need to be adapted for AVs				X	

Source: Urbanism Next analysis of approximately 220 pilot projects, 2020. See Appendix C for the list of all pilot projects.



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RECOMMENDED ACTIONS

2. Study what happened and put those findings into a final evaluation report (only 11% of the pilots we reviewed completed an evaluation report).



Report contents often include:

- **Operational data** - Are companies complying with the permit, regulations, agreement?
- **Analytical data** – Understand the demand and utility of the service
- **Evaluation of the pilot** – what were the equity, health & safety, environmental, economic outcomes



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PERFECTING POLICY WITH PILOTS RECOMMENDED ACTIONS

3. Foster relationships (residents, business owners, service providers) and build trust.
4. Create a policy framework (i.e., regulations, contracts, agreements) for each pilot project that advances the public good and is easy to understand.



PERFECTING POLICY WITH PILOTS

RECOMMENDED ACTIONS

5. Build in compliance mechanisms.
6. Measure the impact of the pilot on equity, health and safety, the environment, and the economy.
7. Measure the impact of the pilot project on transit.



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RECOMMENDED ACTIONS

8. Collect the information needed to ensure the public good (while protecting privacy) and produce useful information to make relevant policy decisions.



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PERFECTING POLICY WITH PILOTS | DATA

MICROMOBILITY

- Systemwide usage data
- Trip data
- Route data
- Distance and duration
- Availability/distribution of vehicles
- Anonymized user demographic data/trends
- Maintenance activities
- Live data on parked vehicles
- Collision and safety data
- Public comments and complaints
- Total users in system by month
- Trip revenue by day/week/month
- Hourly fleet utilization/device quantities
- Parking incidents
- Tow records

TNC PARTNERSHIPS

- Trip origin/destination locations
- Trip length
- Trip duration
- Trip time of day
- Trip subsidy
- Number of trips

MICROTRANSIT

- Trip origin/destination data
- Travel time records
- Real-time location and stop-events per vehicle
- Vehicle registration and license info

PASSENGER & GOODS DELIVERY AVS

- Number of riders or deliveries
- Number of disengagements





PERFECTING POLICY WITH PILOTS

RECOMMENDED ACTIONS

9. Apply these lessons learned and recommendations to AV and other types of pilots.
10. Plan for volatility.



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