



4/4/2025

About Elliott McFadden

- 20-year veteran of new mobility industry
- Launched 1st carsharing system in Texas
- Founding CEO of Austin B-cycle
- Co-founder of North American Bike Share Association
- Lead on MnDOT's Mobility-as-a-Service pilot
- Leader on dozens of product development and innovation projects using Lean Startup principles



What is shared mobility?



- Transportation services are shared among users
- Users may use the service at the same time or independently of one another
- Same time: public transportation, taxi and ride hail, and carpooling and vanpooling
- Independently: car sharing, bike sharing, scooter sharing, delivery

Why shared mobility program is important

Meeting demand for public transit in Greater Minnesota

- Meet legislative mandate to MnDOT for Greater Mn transit funds that requires meeting 90% of transit demand
- Shared mobility fills in where traditional transit is not economical or cannot provide service



Why shared mobility program is important

Meeting MnDOT's goals to reduce GHG emissions

- Rich public transit and shared mobility options offer choices over SOVs
- More choices mean more viable options for GHG emission offsets for new construction



Why shared mobility program is important

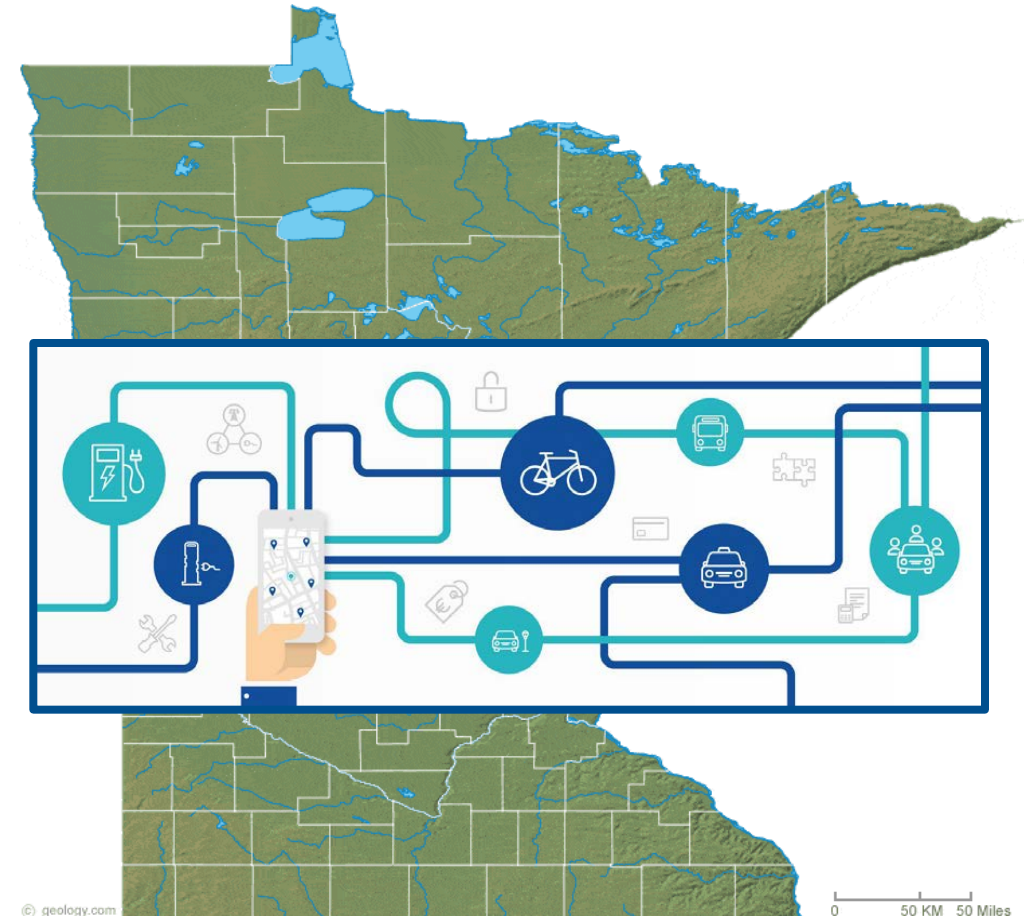
Improve quality of life for rural, tribal and small urban communities

- 2020 MnDOT funded research study with North Dakota State University found:
 - 23% of rural transit riders would have to leave the community that they live in if they did not have public transit services
 - 63% said that they would lose their job if they did not have public transit as an option



About the Greater Mn Shared Mobility Program

- FHWA state rideshare program, expanded to all shared mobility technologies in 2020
- Work focus
 - Building understanding of shared mobility options
 - Build network of organizations in shared mobility space and host Greater Minnesota Symposium
 - Identify opportunities for shared mobility pilots in Greater Minnesota



Business model research

- Survey of innovative mobility models
 - City Tech Collaborative
 - Urban Movement Labs
 - Michigan Mobility Fund
 - Transport for London
 - Partnership for New York City
 - Vinnova (Sweden's innovation agency)
 - Living Labs



Current model limitations:

Focus on pilot, not the pre-pilot development or post-pilot continuation

Missing early-stage market match and user focused problem/solution fit work

Little planning on what happens after pilot

Lack of clear development road map is a brake on innovation and interest from private sector

Silo of public, private, academic, and philanthropic support

The Opportunity

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Model for Moving Greater Minnesota Forward



Three Phases

- Phase 1: Idea development
- Phase 2: Real world test
- Phase 3: Scaling success

All stages focus on an all-sector collaboration to provide technical support and forward-looking road map to manage financing and growth

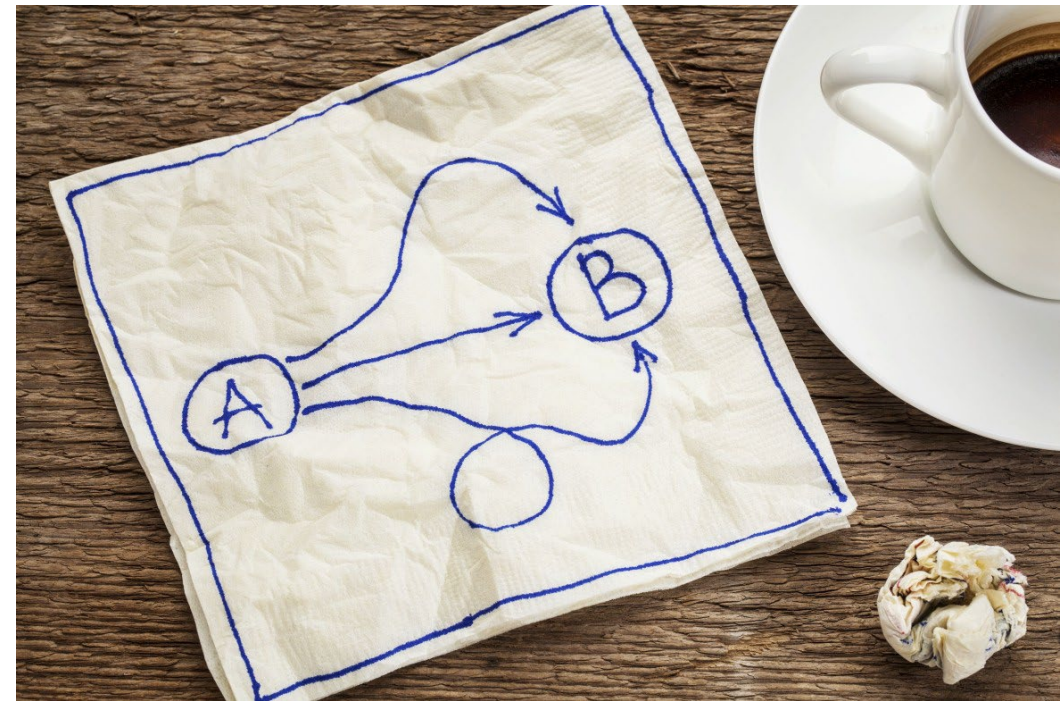
Program Priorities

- MnDOT priorities for projects:
 - 1st/last mile connection to transit or supplemental service not currently provided
 - Historically underserved communities not currently served or underserved by transit
 - Improved efficiencies or business models for existing services
 - Winterization models for shared mobility
 - Electrification of shared mobility



Phase 1: Idea Development

- Establish Shared Mobility Lean Startup Incubator with rolling sets of cohorts every six months
- Anyone with a shared mobility idea that could be tested in Greater Minnesota eligible and wants to develop the idea to be funded
- Focus on matching Phase 1 success with Phase 2 funding





THE LEAN STARTUP

Innovation framework

- **Problem/solution focused**
Is this a problem worth solving?
- **Human centered design**
Involve customers as much as possible as early as possible
- **Resource light**
Building the least amount you need to test an idea, i.e. your MVP



THE LEAN
STARTUP

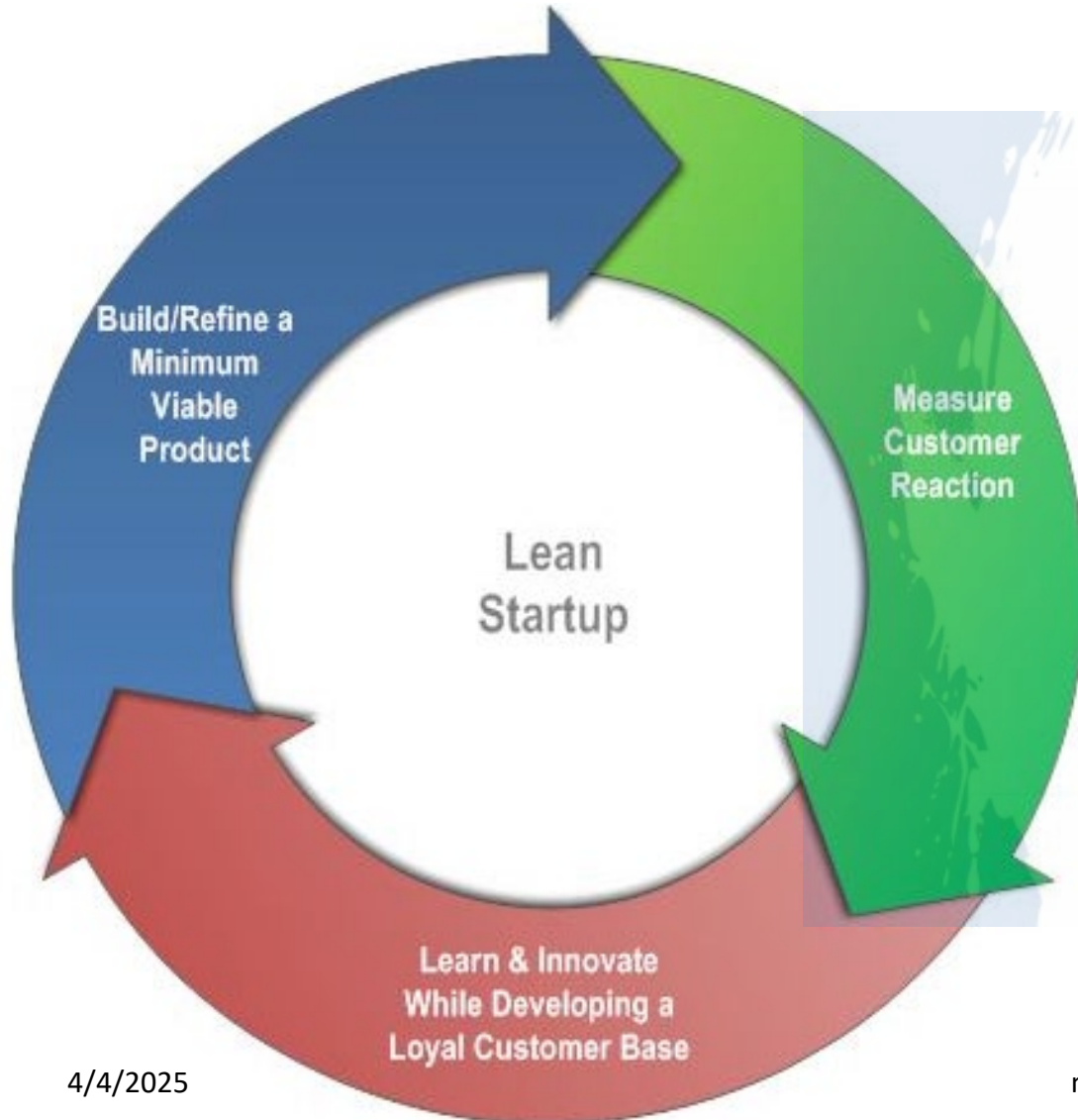
Innovation framework

- **Built on scientific method**
Projects must have provable hypothesis
- **Metric focused**
Impact of actions must be measurable
- **Only scale when idea meets or exceeds hypothesized results**
Refine or pivot in the meantime



THE LEAN
STARTUP

The Lean Model



- **Save Time and Money**
- **Reduce risk**
- **Make a better product**

Phase 1: Idea Development

- Phase 1 program led by ILT Academy
- 10-week online course and coaching in Lean Startup principles
- Weekly meeting with cohort plus out of class work to develop idea ending with pitch session + post-course coaching
- \$4,000 stipend available for up to 6 project teams
- Next cohort opens August 2025



Phase 1 Cohort Testimonials



4/4/2025

Phase 2: Testing

- Programming to help fund shared mobility pilots to get real world data in Greater Minnesota
- Looking for projects who have gone through Phase 1
- Partners with specific Greater Minnesota community to produce pilot
- Annual call for \$500,000 in project funding annually



2024 Phase 2 project awards

Applicant	Project description	Length of project in months	Awarded amount
Bicycle Alliance of Minnesota	Employer-based e-bike share pilot in Duluth and Red Lake Nation (Funding Year 1 of request only)	24	\$147,493
Cook County Public Health and Human Services	Support of new Boreal Partners Transit demand response service for adults 65 years old and older in Cook County	24	\$4,215
Leaf Rides	Public shared e-bike service expansion to historically underserved communities in Duluth	24	\$62,550
The Plum Catalyst	Expansion of goMARTI electric vehicle microtransit service area to east side of the Leech Lake Band of Ojibwe reservation area (Funding Year 1 of request only)	24	\$265,742
Waypoint Transit Solutions	Pilot of low-cost electronic bus arrival signs in partnership with Duluth Transit Authority	16	\$20,000



Phase 3: Scaling

Establish programming and support to connect successful pilots with additional funding to scale into long term growth

Three potential funding avenues:

Spin off to private investment

Develop direct procurement of services through existing or new programming

Establish a P3 entity to continue to leverage public, private, and philanthropic dollars

Review of Moving Greater Minnesota Forward

Phase 1: Idea Development

Program: 10-week Lean Startup course plus 6-months of coaching

Participants: Local government and community organizations, public transit agencies, small biz, startups, mobility providers

Timing: New cohort every six months through 2024

Phase 1 completion

Phase 2: Testing

Program: Up to two years of pilot funding

Participants: Phase 1 projects that partner with Greater Minnesota communities

Timing: Annual project call in Winter 2025

Phase 2 completion

Phase 3: Scaling

Program: Ongoing funding to scale success

Participants: Phase 2 projects working with Greater Minnesota communities

Timing: Successful completion of Phase 2

Shared mobility goals for next 5 years

PROGRAM GOALS BY FY29

1. Support of shared mobility industry to make Minnesota national center for innovation
2. Grow innovative shared mobility ecosystem into world-class program meeting Greater Mn mobility needs
3. Expanding digital infrastructure to drive innovation and integrate public transit into new mobility landscape



Thank you

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