

Scenario Planning for Mobility on Demand Solutions

Part II

Many MOD Planning Processes Today

MOD Solution



Community Need

Community Need

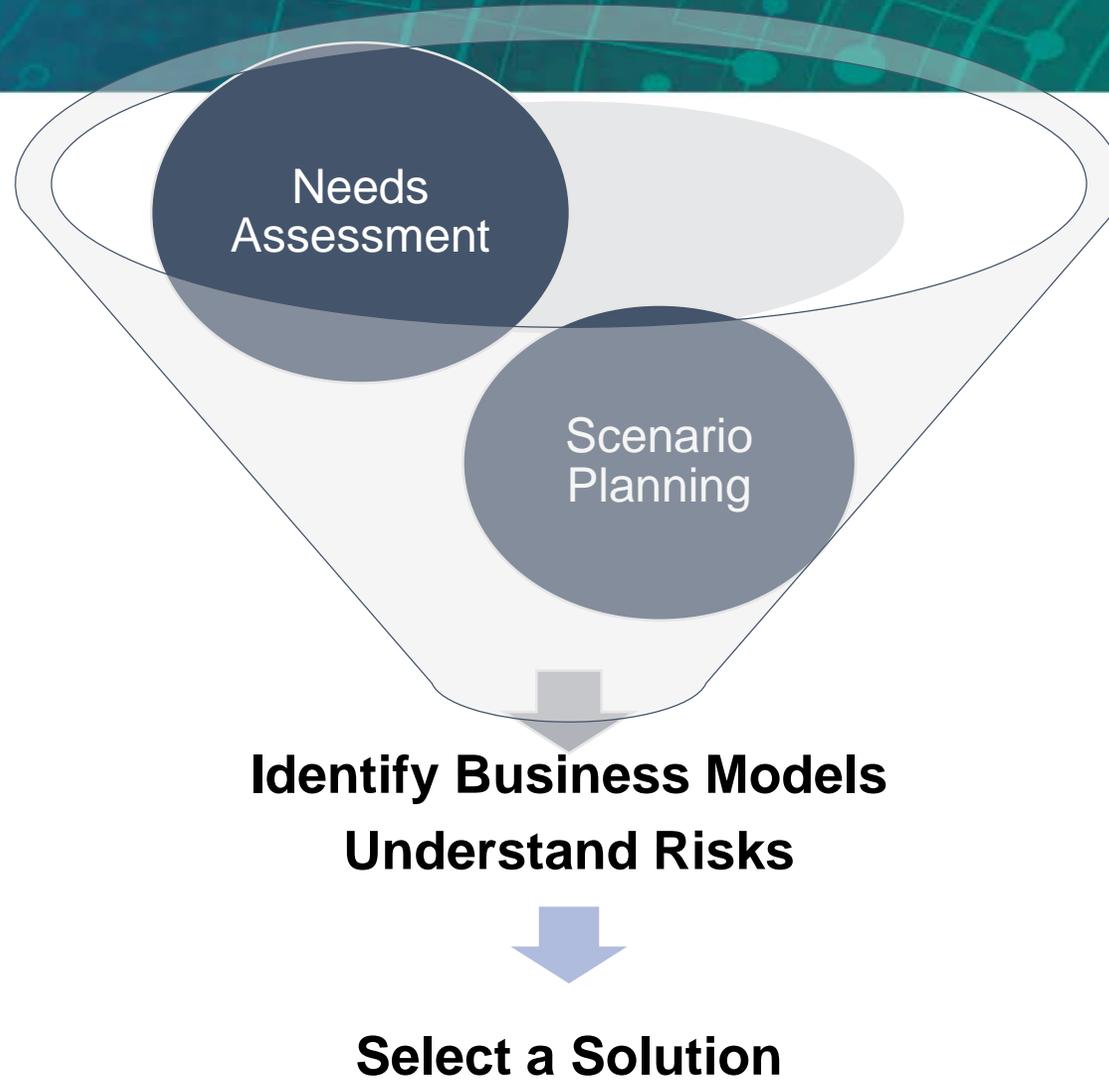


MOD Solution

Failure to Account for Risks

- Political changes
- Social trends
- Regulatory changes
- Changes to MOD business models
- Technology innovations
- Changes in energy/fuel costs

Our Solution



Needs Assessments

- A process to understand the mobility needs of your community
- You may have already conducted a needs assessment



Conducting a Needs Assessment



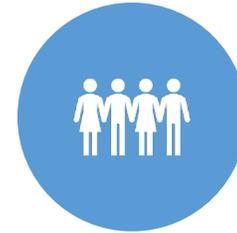
INVENTORY EXISTING
CONDITIONS TO
GAIN CONTEXT



DETERMINE THE
PURPOSE OF NEEDS
ASSESSMENT



ASSESS AVAILABLE
RESOURCES



KNOW THE
COMMUNITY



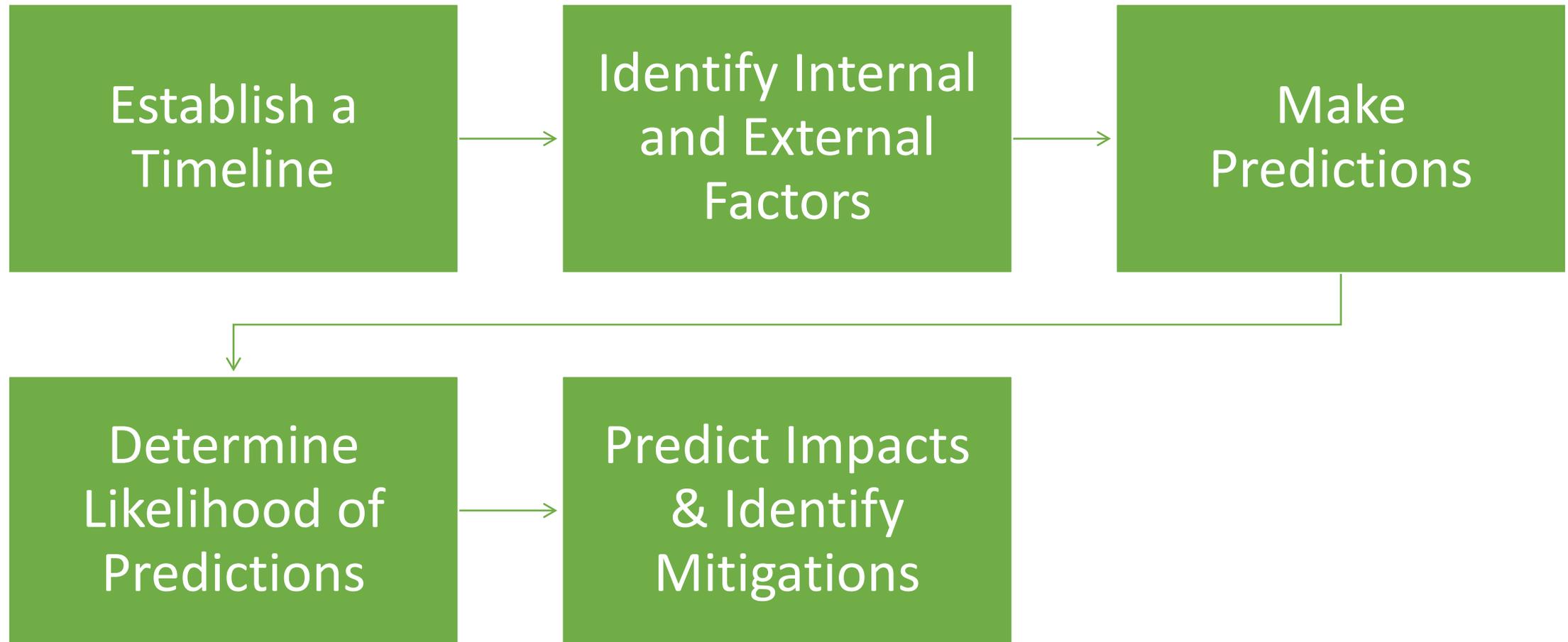
CONDUCT THE
ASSESSMENT

Scenario Planning

Typology that allows planners and communities to identify plausible alternative futures, think about the impact of those futures, and propose actions to address potentially negative outcomes.



Scenario Planning Steps



Bringing it all Together

- **Step 1:** Identify your needs.
- **Step 2:** Rank mobility services based on their ability to meet your needs.
- **Step 3:** Identify applicable business model elements.
- **Step 4:** Use scenario planning to understand potential risks.
- **Step 5:** Make your selection.

Step 1: Identify Your Needs

- Mixed-use area with a mid-sized university
- Rail station adjacent to the planning area
- Rail station's placement results in long walks to/from university
- Two recent studies recommended a mobility solution to connect the university and surrounding neighborhood to the rail station



Step 2: Rank Mobility Services

Ability of Business Models to Address First/Last Mile Travel Needs

	Free-floating Carsharing	Docked Bikesharing	Dockless Bikesharing	Dockless E-scooters	Ridesourcing	Microtransit	Apps
FLM Rankings	Potential	High	High	High	High	High	High

Step 3: Identify Business Model Elements

Customer Base: The city plans to directly oversee the selected mobility service. As such, it would prefer a business model that focuses its customer base on B2G.

	Free-floating Carsharing	Docked Bikesharing	Dockless Bikesharing	Dockless E-scooters	Ridesourcing	Microtransit	Apps
FLM Ranking	Potential	High	High	High	High	High	High
Customer Base	B2C	B2C/G	B2C	B2C	B2C	B2G	B2C/G

Step 3: Identify Business Model Elements

Operational Characteristics: The city has no preference with respect to the operational characteristics of the business model. It simply needs a solution.

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FLM Ranking	Potential	High	High	High	High	High	High
Customer Base	B2C	B2C/G	B2C	B2C	B2C	B2G	B2C/G
Operational Characteristics	One mode	One mode	One mode	One mode	One mode	One mode	Mobility as a Service

Step 3: Identify Business Model Elements

Capitalization and Revenue: The university has agreed to fund the service with minimal assistance from the city. The city and university do not require advertising, sponsorships, or grants to offset the cost of the service. As such, this category has no impact on the decision process.

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Operational Characteristics	One mode	Mobility as a Service					
Capitalization & Revenue	- Riders, users, members - Venture capital - Sponsorship & advertising	- Riders, users, members - Venture capital - Sponsorship & advertising	- Riders, users, members - Venture capital - Sponsorship & advertising	- Riders, users, members - Venture capital - Sponsorship & advertising	- Riders, users, members - Venture capital - Sponsorship & advertising	- Riders, users, members - Venture capital - Sponsorship & advertising	- Riders, users, members - Venture capital - Sponsorship & advertising

Step 3: Identify Business Model Elements

Partnerships and Regulation: The city wants to procure the service and desires to do so through a traditional bid/contracting process.

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Capitalization & Revenue	<ul style="list-style-type: none"> - Riders, users, members - Venture capital - Sponsorship & advertising 	<ul style="list-style-type: none"> - Riders, users, members - Venture capital - Sponsorship & advertising 	<ul style="list-style-type: none"> - Riders, users, members - Venture capital - Sponsorship & advertising 	<ul style="list-style-type: none"> - Riders, users, members - Venture capital - Sponsorship & advertising 	<ul style="list-style-type: none"> - Riders, users, members - Venture capital 	<ul style="list-style-type: none"> - Riders, users, members - Venture capital - Sponsorship & advertising 	<ul style="list-style-type: none"> - Riders, users, members - Venture capital - Sponsorship & advertising
Partnerships & Regulation	<ul style="list-style-type: none"> - Regulation - Contract - Bid process - Grants 	<ul style="list-style-type: none"> - Regulation - Contract - Bid process - Grants 	<ul style="list-style-type: none"> - Regulation - Contract - Bid process - Grants - Permits or franchises 	<ul style="list-style-type: none"> - Regulation - Contract - Bid process - Grants - Permits or franchises 	<ul style="list-style-type: none"> - Regulation - Contract - Bid process - Grants - Permits or franchises 	<ul style="list-style-type: none"> - Regulation - Contract - Bid process - Grants - Permits or franchises 	<ul style="list-style-type: none"> - Contract

Step 4: Use Scenario Planning to Understand Risks

Factor	Prediction
Population Change	Enrollment drops significantly at the university
Political Change	Elections at the city cause loss of support for the pilot service
Economic Trends	A recession impacts the city and/or university's ability to fund the pilot
	A tight labor market makes it difficult for mobility services to recruit and retain employees
Environmental Events	Winter snowfall significantly exceeds historical averages
Mobility on Demand Business Model Changes	The service provider ceases operation
Fuel Costs	Gasoline costs increase by 25 percent or more
Other	Technology disruption prevents travelers from using the service provider's application for multiple days

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Step 5: Make Your Selection

		Microtransit		
External Factors/Predictions		Tight labor market makes it difficult to recruit and retain employees	Winter snowfall significantly exceeds historical averages	Service provider ceases operation
Impacts		Rider wait times increase due to a reduction in the number of vehicles in operations	Service may operate behind schedule due to roadway congestion associated with snow	Service will cease
Mitigation		Minimal options	Increase snowplow service along route	Go out for bid for new service. Secure agreement with local transit agency to provide interim call and ride service

Step 5: Make Your Selection

- Repeat the process for docked bikeshare
- Determine what your community is comfortable with
- MOD may not be your solution