

# Determining pilots for on-demand flexible services in Metro Vancouver

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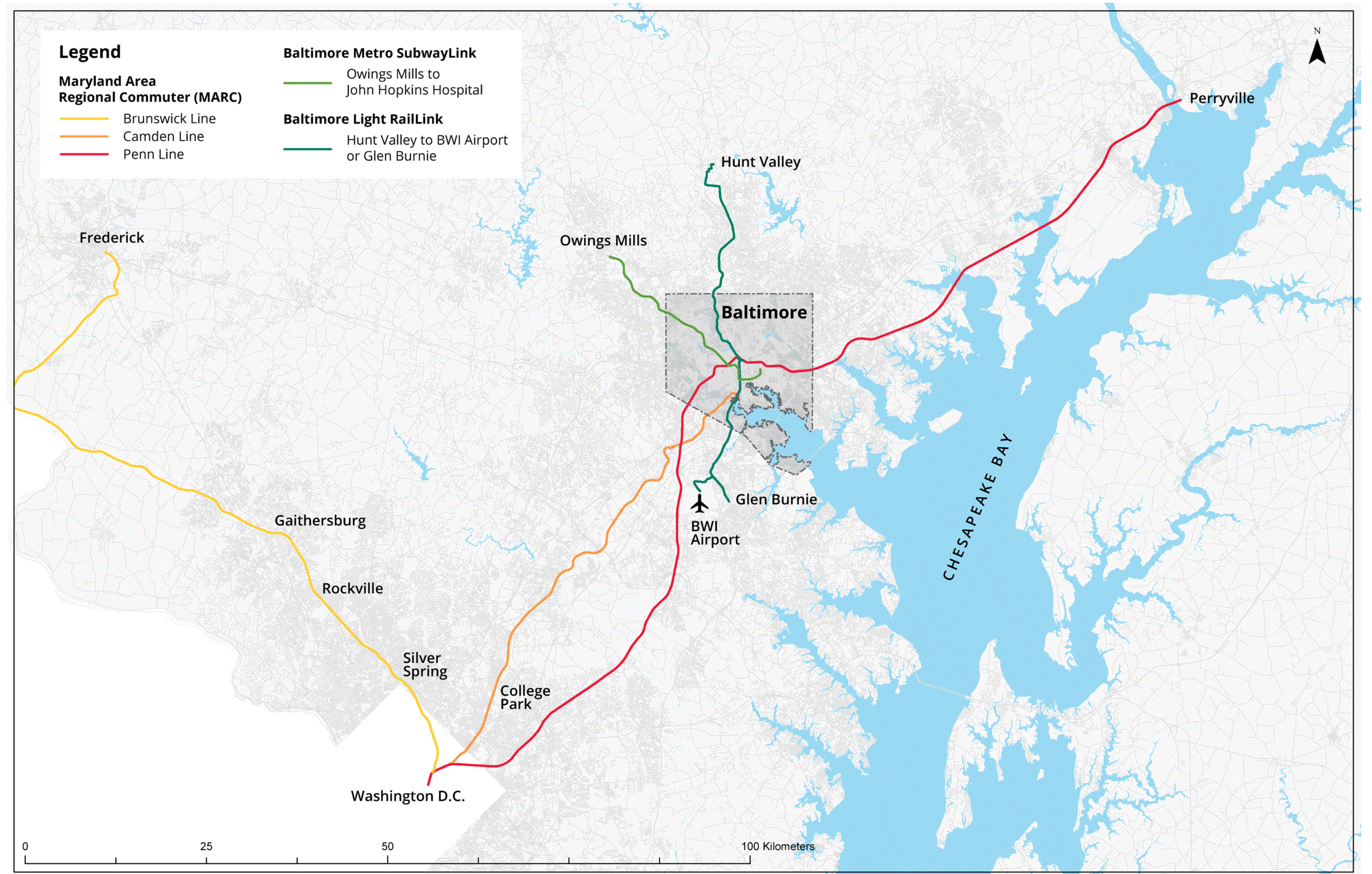
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# TransLink's service area

- 21 municipalities
- 2.57 M residents (2016)
- 3.6 M by 2050
- 407 M transit boardings in 2017
- 169 annual boardings per capita

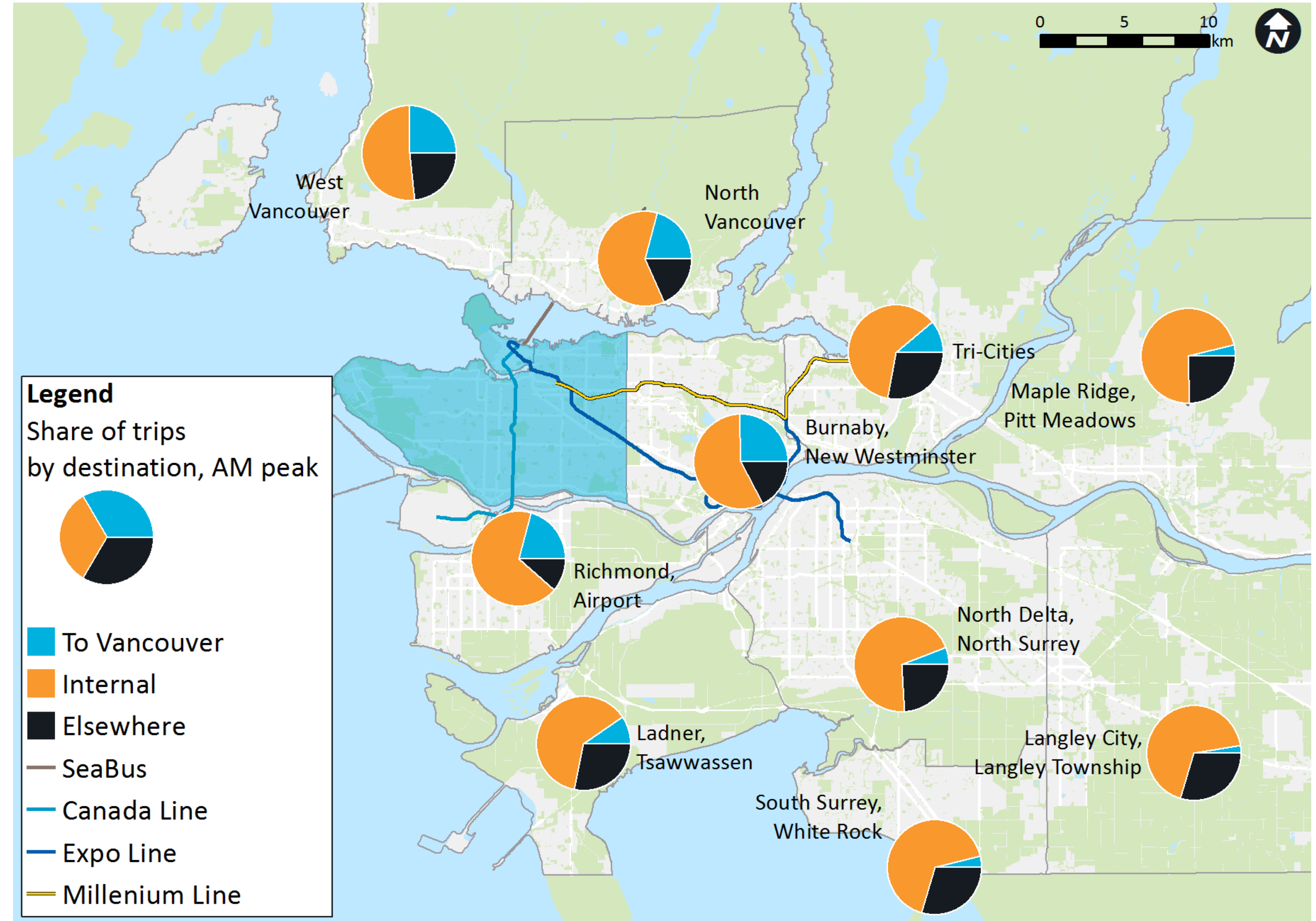


# The majority of trips outside Vancouver are made locally

In the AM peak hour, only about 13% of trips originating from sub-regions outside City of Vancouver are destined for Vancouver, regardless of mode or trip purpose.

In sub-regions located further from Vancouver, the majority of trips are internal within the same sub-region or to neighboring sub-regions.

AM peak hour trip destinations outside Vancouver



Data source: TransLink, Regional Transportation Model (RTM) 3.2 (2016, based on 2011 patterns)

## Rationale for the study

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TransLink is considering new ways of doing business that serve regional objectives while responding to shifting demographics, evolving customer preferences, new technologies and new service providers.

We wanted to be able to pilot on demand services in a transparent, strategic, objective way that met the needs of our municipal stakeholders.

# Why did we need to review where to pilot flexible services?

- Large area – lots of potential places to pilot on demand services
- Lots of suggestions and requests from stakeholders to implement it (e.g. Bowen Island)
- Lots of different applications of on demand - what should we focus on?
- Needed a framework to help prioritize where to pilot schemes
- Transparency for decision-makers on where pilots are undertaken
- To understand the policy framework and objectives for the pilots



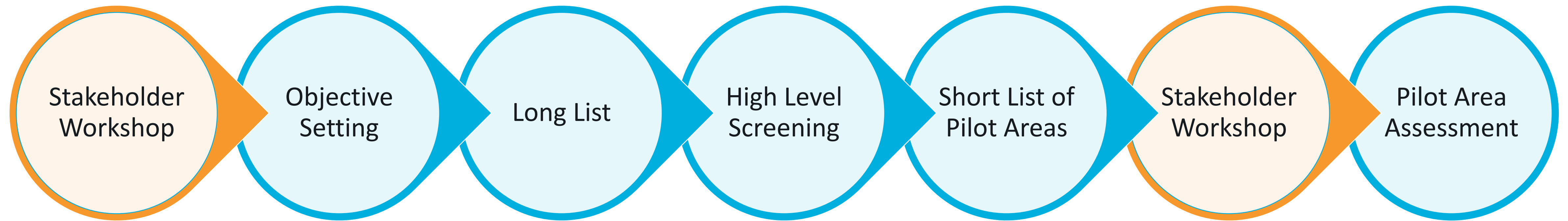
# Technical Approach

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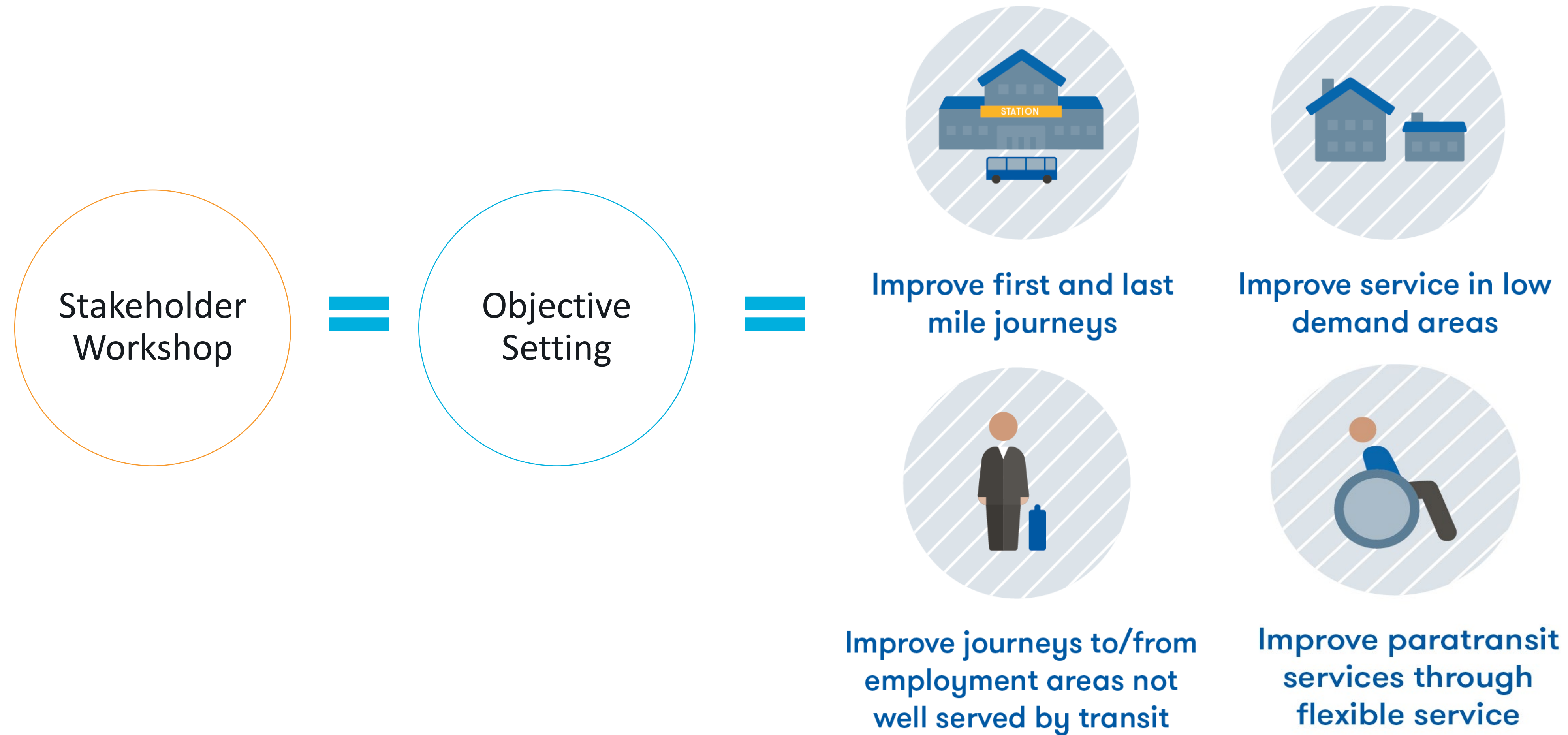


# Our Approach

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# What were TransLink's Objectives in piloting flexible services?



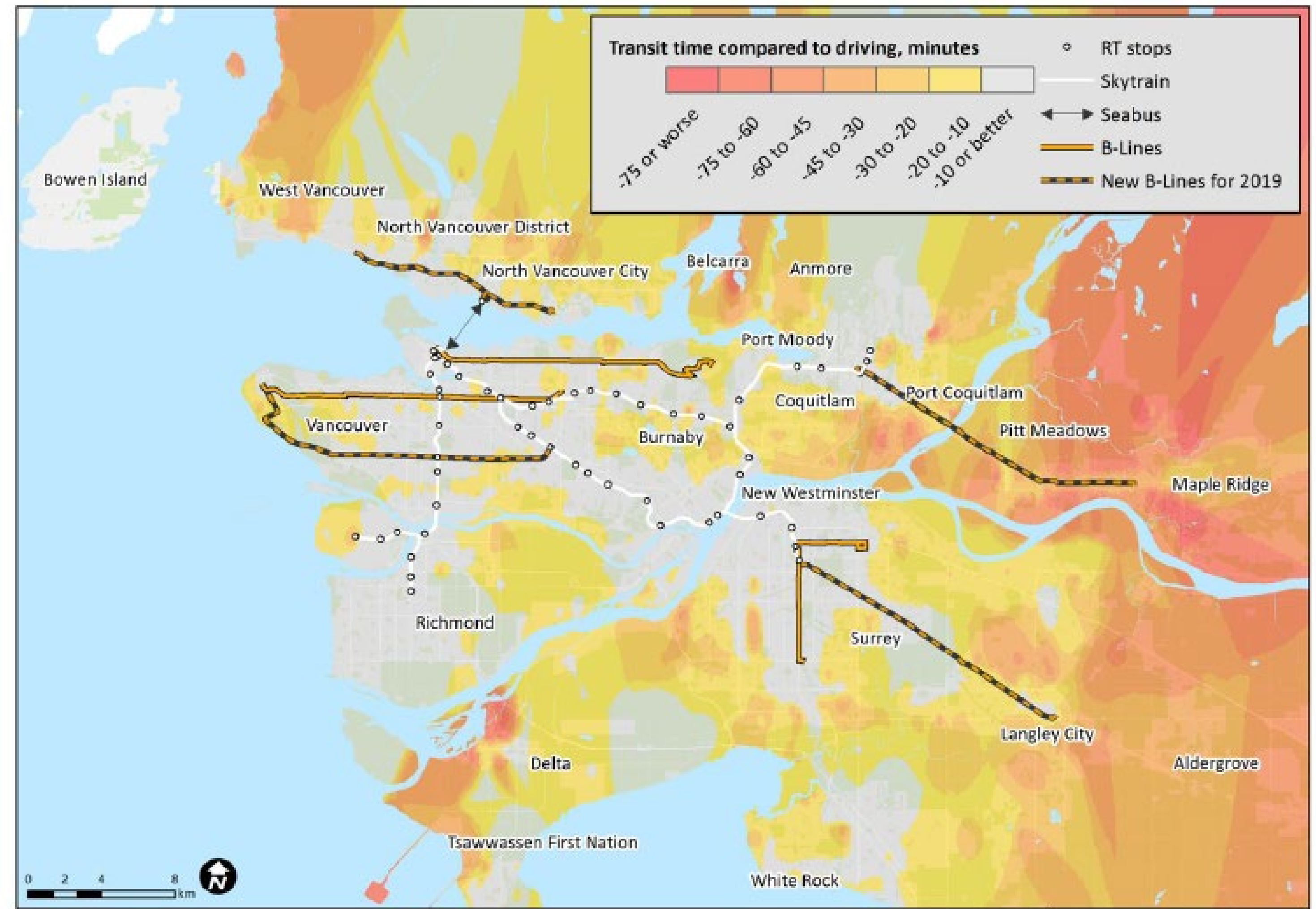


# Long List – Where would be good to pilot a flexible service?

We looked specifically at:

- 25 poorest performer locations
- Transit time compared to driving
- High employment density areas not served by the higher order transit network
- Trip patterns in the paratransit network
- Areas strategically important to TransLink for new service improvements
- Areas that had potential ridership suitable for a flexible service

We ended up with 32 pilot locations



# High Level Screening

## Six Criteria

Deliverability

Is the area in the Phase 2, 10 Year Vision?

Prevalence of Short Distance Trips

Potential Transit Ridership

Complements Existing Service?

Fills multiple pilot service types?

# Pilot Area Assessment



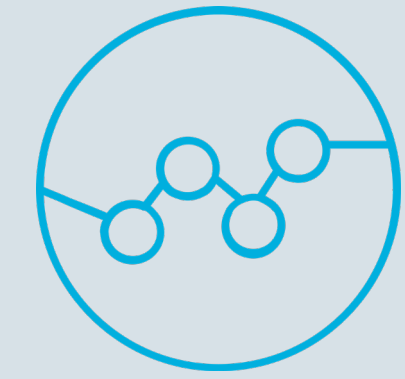
## Population and Service Area Context

- What are the predominant Origins and Destinations of vehicle trips?



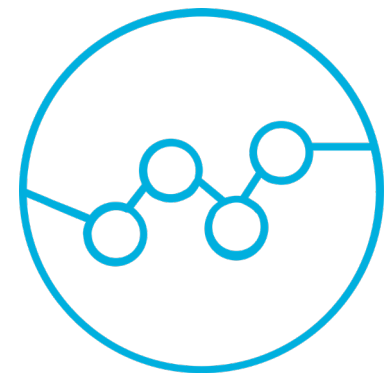
## What are the current problem(s) a flexible service could solve?

- Poor Frequency and Underperformance of Existing Bus Services?
- Poor Connectivity and Travel Time?



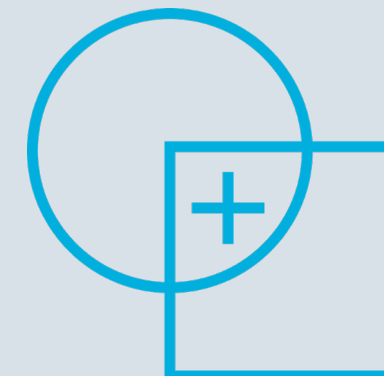
## Impact on existing services

- Re-routing?
- Replacement?



## Potential Demand

- Looked at existing Community Route's average weekday hourly boardings and alightings
- Current level of transit mode share



## Proposed Objectives

- Specific to the pilot area
- Specific to the service



## Service Parameters

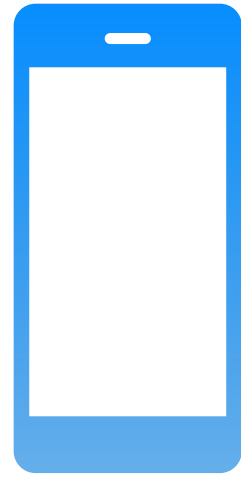
- How would the service work?
  - How many vehicles?

# Challenges to implementing on demand pilots



# Lessons learned

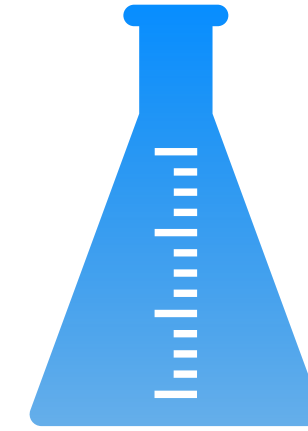
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Cellular Reception



Technology Learning Curve



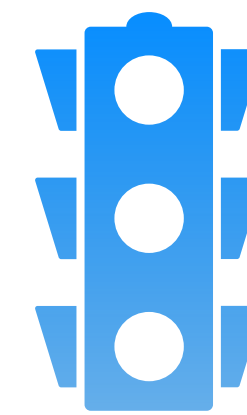
Expectations



App Development



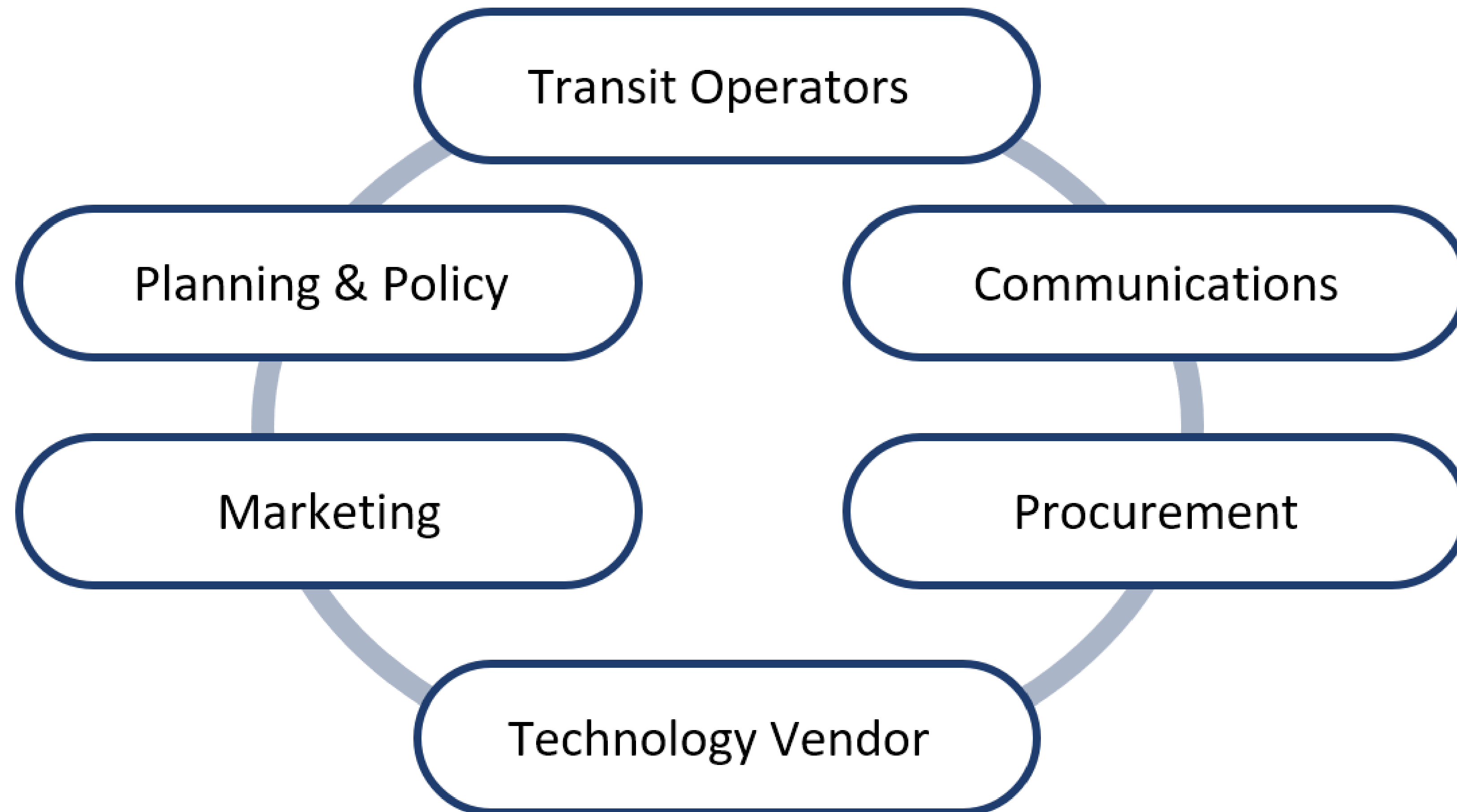
Equitable Transportation



Governance & Funding

# Lots of teams involved

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## Final words...

Pilot projects are a great way to prove that on-demand bus service is not just a concept, it is a real option available to transit agencies!

**Promise Less, Deliver More!**

# Questions

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