BUS TRANSFORMATION PROJECT

Technical Team Meeting

January 25, 2019

Agenda

<u>Updates</u>   [20 min]

1.   Project Overview and Schedule Update

2.   Outreach and Engagement Summary

3.   Survey Results Highlights

4.   Structure of Emerging Strategy

<u>Discussion</u>

5.   Role of Bus   [30 min]
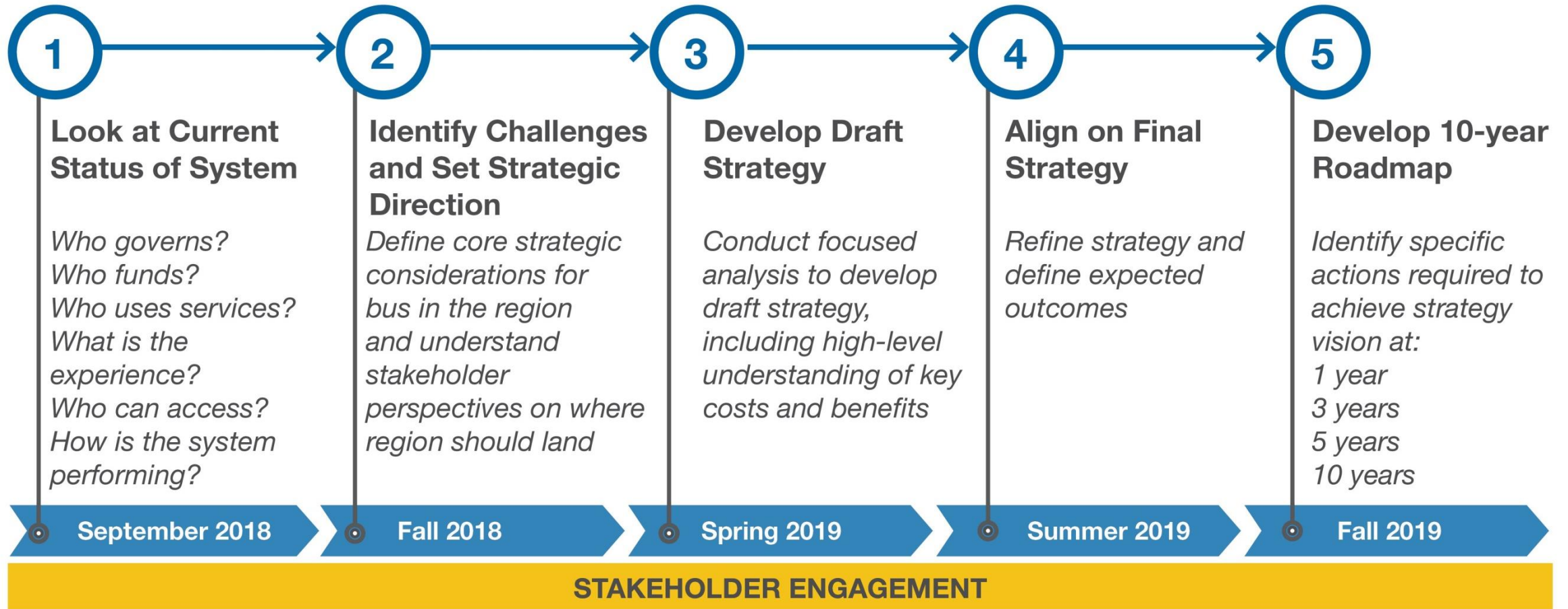
6.   Role of Metrobus   [40 min]

Project Vision:

Bus will be the **mode of choice** on the region's roads by 2030, serving as the backbone of a **strong and inclusive** regional mobility system.

Goals for bus in the region as voiced by stakeholders

Theme	Goals
1 **Regional connectivity**	Provide high-quality on-street transit options that efficiently and reliably connect people to places and improve mobility
2 **Rider experience**	Ensure that bus is a convenient, safe, easy-to-use, user-centered mobility option
3 **Financial stewardship**	Maintain a transit mode that is financially responsible in the long-term
4 **Sustainable economic health & access to opportunity**	Encourage vibrant, economically-thriving and sustainable communities through investments in bus
5 **Equity**	Create a transit system that is affordable and equitable to users

Overall Schedule

1 — **Look at Current Status of System**

*Who governs?
Who funds?
Who uses services?
What is the experience?
Who can access?
How is the system performing?*

September 2018

2 — **Identify Challenges and Set Strategic Direction**

Define core strategic considerations for bus in the region and understand stakeholder perspectives on where region should land

Fall 2018

3 — **Develop Draft Strategy**

Conduct focused analysis to develop draft strategy, including high-level understanding of key costs and benefits

Spring 2019

4 — **Align on Final Strategy**

Refine strategy and define expected outcomes

Summer 2019

5 — **Develop 10-year Roadmap**

*Identify specific actions required to achieve strategy vision at:
1 year
3 years
5 years
10 years*

Fall 2019

STAKEHOLDER ENGAGEMENT

Outreach Summary & Survey Results

Engagement to Date

- 5,679 responses to survey

- 20 regional pop-up events

- 1 summit (140+ participants)

- 14 committee meetings

- 13 operator listening sessions

- 35+ stakeholder interviews

- 11 project briefings/meetings
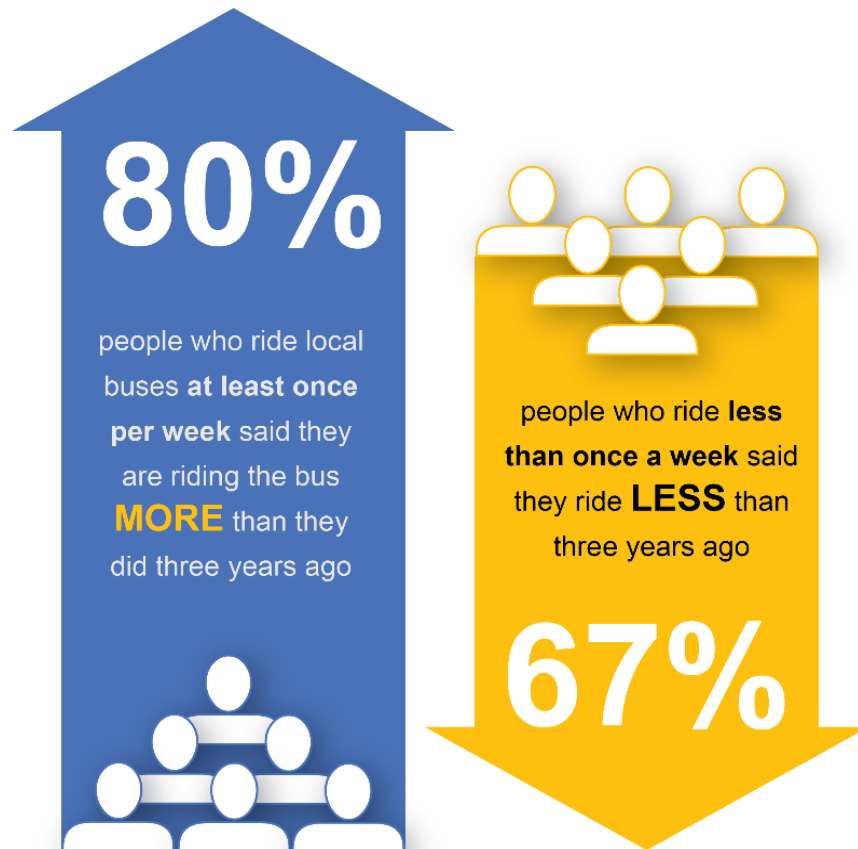
- Over 696,000 social media impressions and 2,450 clicks

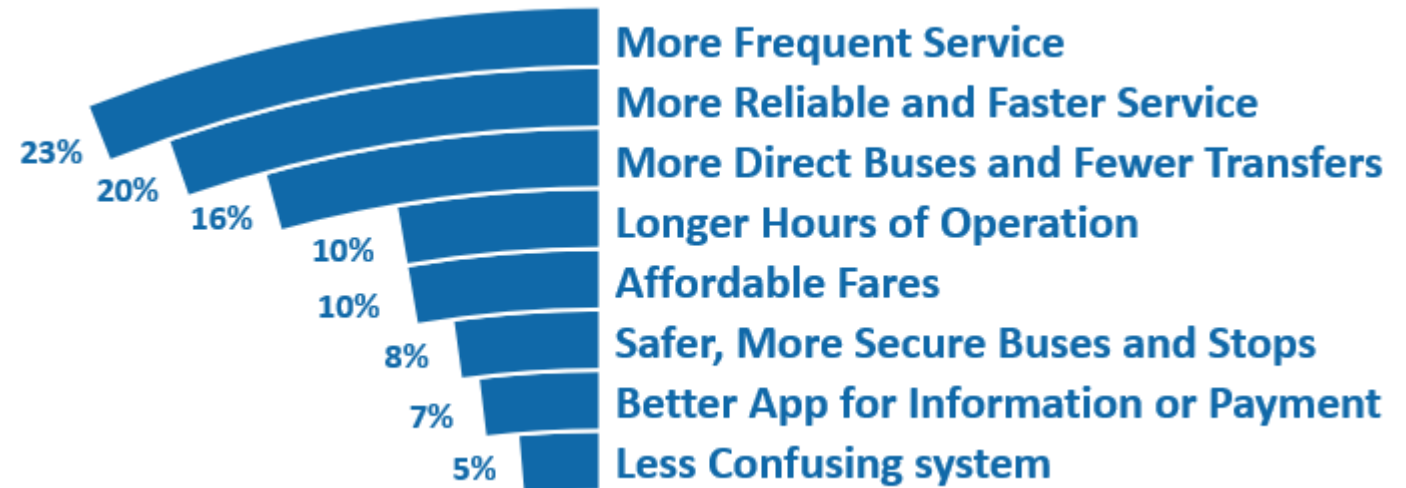## Top Line Public Mobility Survey Results

- **5,679 responses** obtained – exceeding goal of 3,000 by almost 90%

- The survey's **wide distribution reached many frequent bus riders** across the region.

- The top two barriers to riding the bus are **low frequency** and **low speed**.

- Respondents prioritized **improved frequency** and **reliability** more than longer hours.

- Over half (57%) of bus service gaps identified were **within the same jurisdiction**.

Key Public Mobility Survey Findings

Ridership Trends

80% people who ride local buses **at least once per week** said they are riding the bus **MORE** than they did three years ago

people who ride **less than once a week** said they ride **LESS** than three years ago **67%**

Respondents' Top Priorities for Bus Improvements

Priority	Percentage
More Frequent Service	23%
More Reliable and Faster Service	20%
More Direct Buses and Fewer Transfers	16%
Longer Hours of Operation	10%
Affordable Fares	10%
Safer, More Secure Buses and Stops	8%
Better App for Information or Payment	7%
Less Confusing system	5%

Structure of Emerging Strategy

The Strategy is a structural change

The project will deliver a **regional mobility strategy** that clearly defines the role of bus service and bus operators, advances innovation, thinks boldly about the future, and creates a roadmap to get there.

The Strategy strikes a balance between **detailed analysis** by the project team and **proven experience** from stakeholders across the region and the transportation industry.

It will develop **robust structures** that operators and decision makers can adapt over time within the **dynamic context** of transportation markets and technologies.
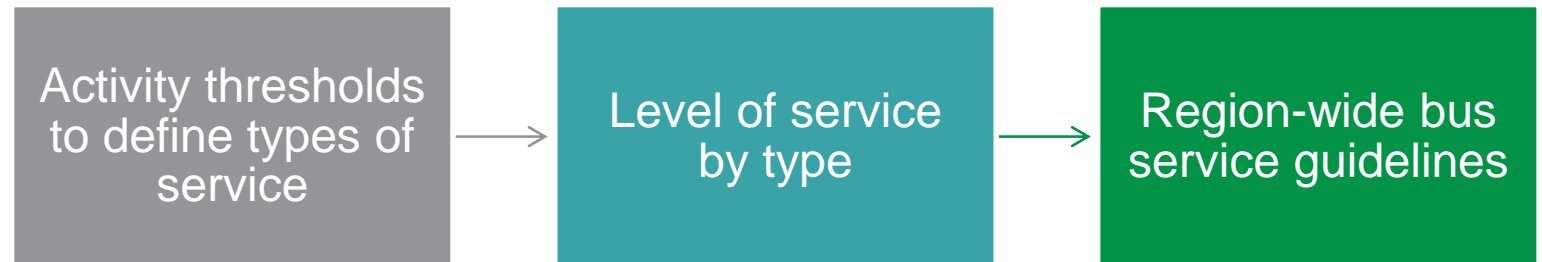
The Strategy responds to five strategic questions

Today's Meeting Topics

1. Role of buses in the region?

2. What services should Metrobus operate?

3. Regional commitment to bus?

4. What business functions should Metrobus provide?

5. Regional governance model?
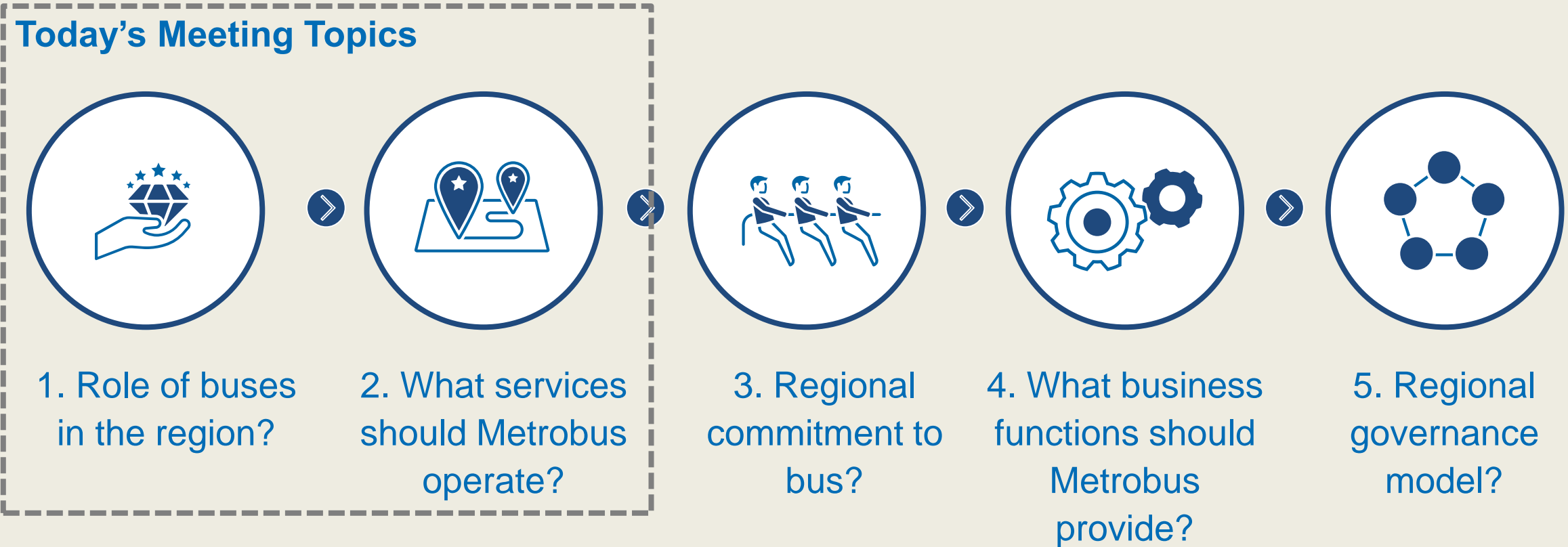
What the Strategy will provide to the region

1. Role of buses in the region

- What we've heard: Expand accessibility to buses

- Outcome: Develop region-wide bus service guidelines based on activity thresholds

  - Flexible enough to be applied by each jurisdiction and operator

  - Definitive enough to serve as the basis for strong decision making over time about where and what types of services should be delivered
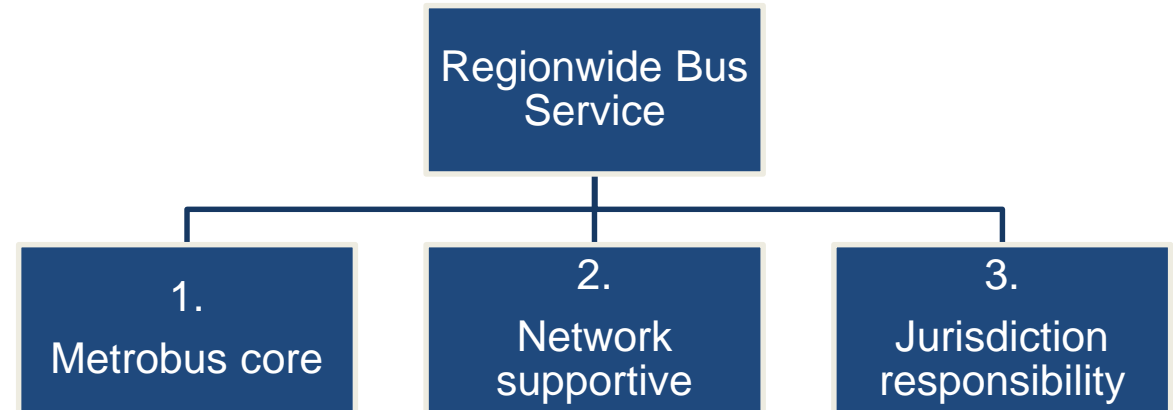
| Activity thresholds to define types of service | → | Level of service by type | → | Region-wide bus service guidelines |

1. Role of bus   2. Role of Metrobus   3. Regional commitment to bus   4. Metrobus business functions   5. Agency roles

What the Strategy will provide to the region

2. What services will Metrobus operate

- What we've heard: Redefine what the regional transit provider should operate

- Outcome: Clearly define what the regional provider is responsible for operating

  o Build a calculator that allows refinement of threshold values and resulting service and O&M cost commitment

  o Revise the cost allocation model

1. Role of bus > 2. Role of Metrobus > 3. Regional commitment to bus > 4. Metrobus business functions > 5. Agency roles

Regionwide Bus Service

| 1. Metrobus core | 2. Network supportive | 3. Jurisdiction responsibility |

What the Strategy will provide to the region

3. Regional commitment to bus

- What we've heard: The region needs to prioritize buses

- Outcome: Quantify the impact of priority improvements on operating performance

  o Define levels of bus priority

  o Publicize benefits for greater buy-in among regional stakeholders and elected officials

  o Build incentives into the Metrobus cost allocation structure

1. Role of bus
2. Role of Metrobus
3. Regional commitment to bus
4. Metrobus business functions
5. Agency roles
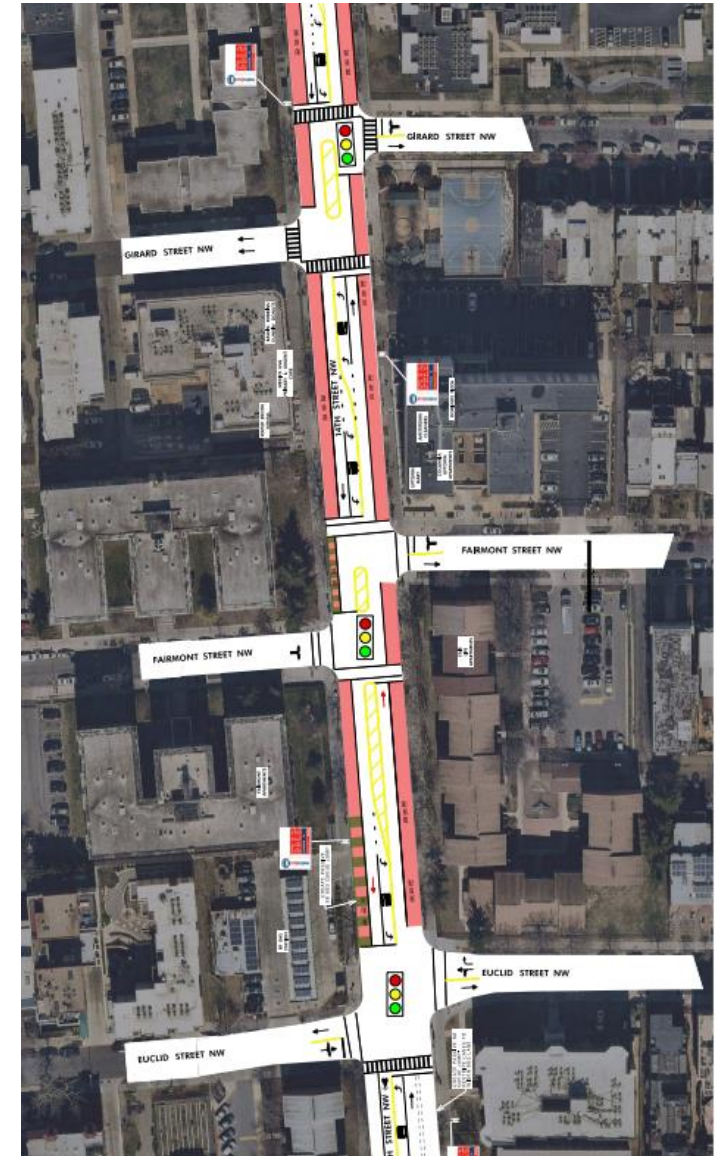
DDOT initial plans for 14th Street bus priority improvements (Nov 2018)

What the Strategy will provide to the region

4. Business functions of Metrobus

- What we've heard: Investigate opportunities and efficiencies by enabling regional transit provider to do specific functions for the region

- Outcome: Assess the impact and feasibility of each potential centralized function, and use insights to prioritize potential offerings

  o Support recommendations through the experience of responsible stakeholders, financial analysis, and global best practices

Service prioritization framework

1. Role of bus > 2. Role of Metrobus > 3. Regional commitment to bus > **4. Metrobus business functions** > 5. Agency roles
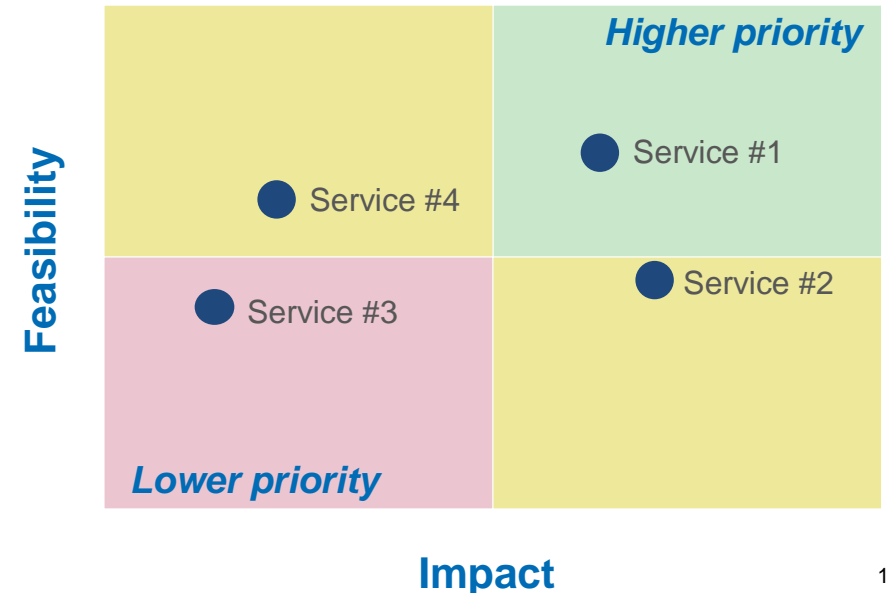
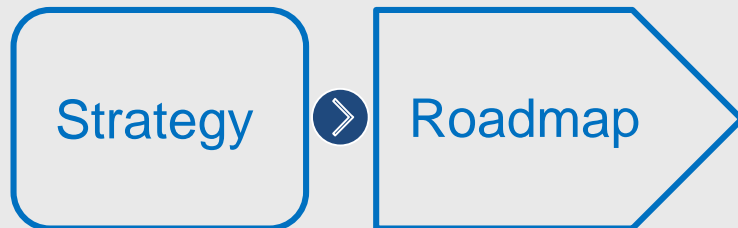# What the Strategy will provide to the region

5. Regional governance model

- What we've heard: strengthen the role of the regional provider and clarify decision making among jurisdictions and agencies

- Outcome: establish the working structure for implementing Strategy recommendations

  o Identify/confirm agency roles based on business functions and funding responsibilities

  o Illustrate resilience of proposed structures for technology and policy innovation, and emergency response

1. Role of bus   2. Role of Metrobus   3. Regional commitment to bus   4. Metrobus business functions   **5. Agency roles**

What is the roadmap that will come out of the strategy?

The Roadmap will define and sequence actions needed for implementation.

Action	Responsible Party(s)	Year Action Required
Publish regional service design guidelines	Bus Transformation Project	0
Undertake any needed network redesign based on regional guidelines	WMATA + other bus operators if desired	1-3
Launch integrated portal for transit/transport info	WMATA + other bus operators	1-3
Complete any recommended changes to agency decision making roles	Jurisdictions, WMATA	3-5

Strategy > Roadmap

Illustrative

Role of Bus

The Strategy responds to five strategic questions
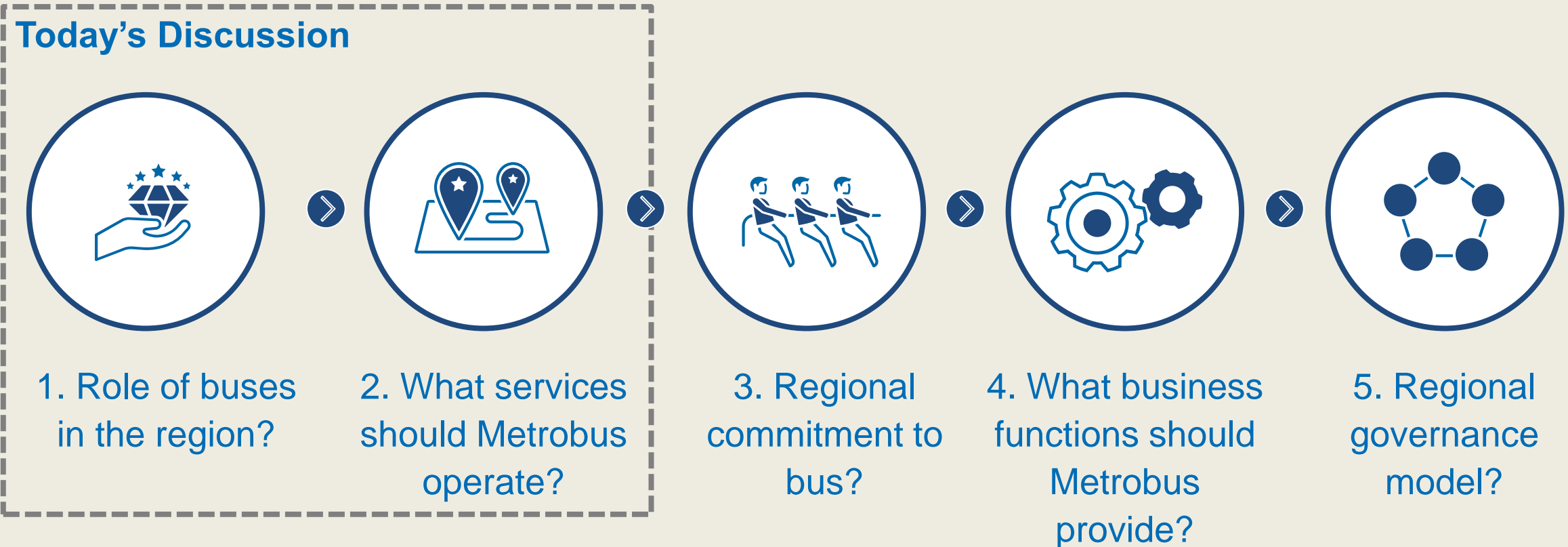
For today's discussion:

**Key elements of the Strategy that will drive transformation**

Role of Bus

- What is a strong and inclusive regional mobility system?

- Use activity thresholds to define level of service.

- Use these thresholds to develop service types and guidelines that can be applied to all providers.

Role of Metrobus

- Where does a regional service provider fit into the landscape of bus operations?

- Metrobus will focus on core services that provide a solid foundation of bus transit for the region.

- Balance the roles of the jurisdictions and the regional provider to optimize the use of resources.

What is the role of Buses in the region?
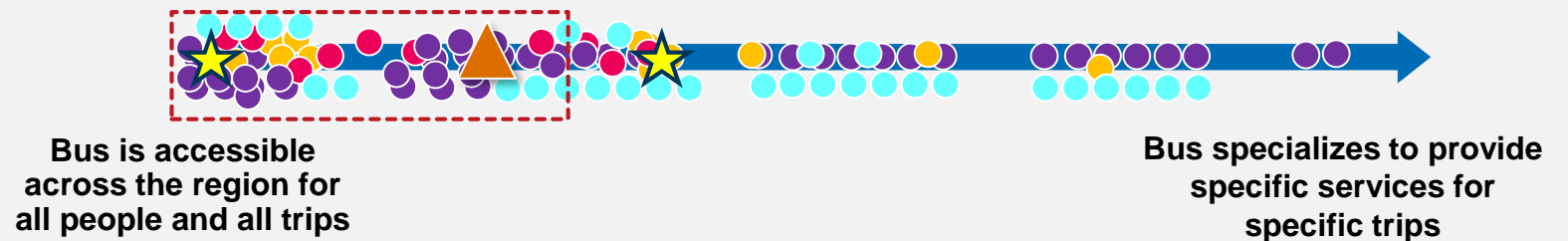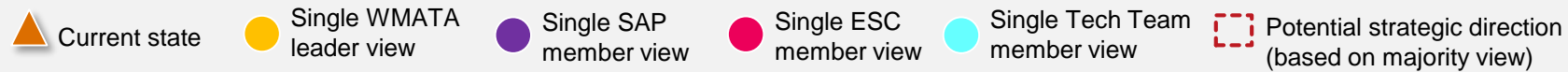
- Project committee member opinions were split but leaned towards **bus being more accessible across the region** for all people and all trips.

- Comments noted concerns with the use of "all" in the question: there is a point beyond which it is impractical to provide public bus service.

- Overall, there is a need to **develop activity thresholds** (density and connections) to drive the accessibility of bus service throughout the region.

Questions for Discussion

- *How well does the proposed approach address the direction of the strategic choice?*
- *For what purposes is it useful to have established regional guidelines for defining service types?*

How will this inform the Strategy?
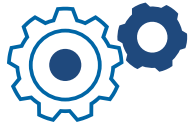
Input

- **Define activity thresholds** based on relevant factors

- Identify areas that are below or above the thresholds

- Identify high-capacity corridors that would benefit from high frequency service

- Identify low-density areas that would benefit from on demand service

Anticipated Strategy Results

- **Accessibility:** Creates a system that is equitably distributed, regardless of jurisdictional boundaries and operator service areas

- **Improved service**: A better product for customers, provided at appropriate levels across the region to create a comprehensive regional network

- **Regional goals:** mode share, greenhouse gas reduction, person throughput, etc.
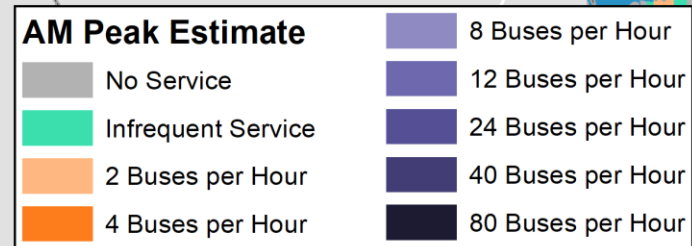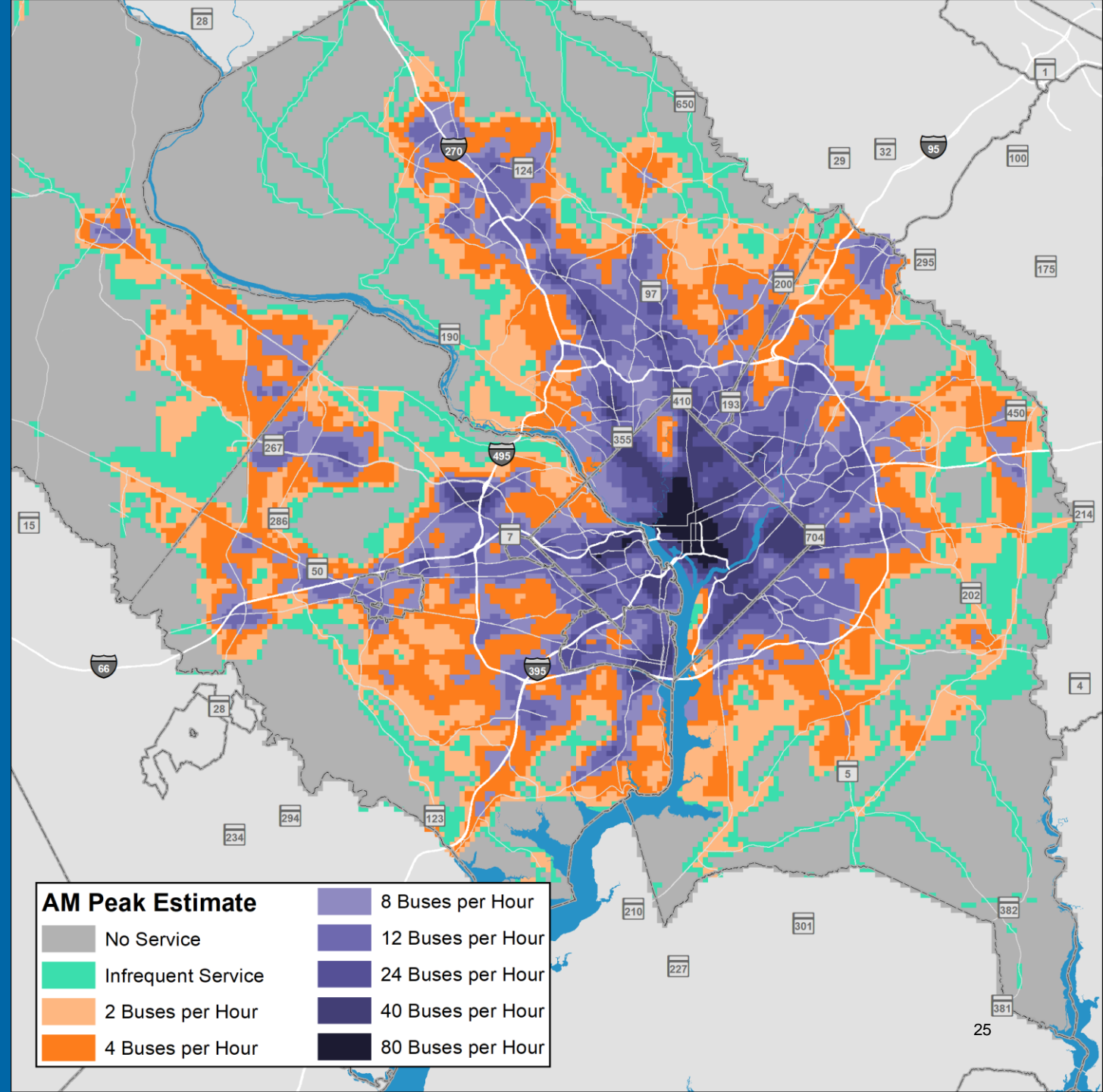
Analytical steps to defining the role of Bus

1. The following location-based characteristics correlate with how often people in our region use transit:

   o Population density
   o Employment density
   o Low income persons density
   o Minority density
   o Adjacent to arterial roadway

   o Senior density
   o Youth density
   o Distance from downtown DC
   o Density of Metrorail stations
   o Pedestrian access to bus stops

2. A "best fit" analysis assigns appropriate service types by ¼ mile grid cell to the entire region

3. Thresholds are defined using the frequency of access to transit

4. Compare the assigned "best fit" vs. actual service to identify current gaps and overlapping transit service

5. Use thresholds to evaluate the costs and benefits of service increases/decreases

Access to Transit

The trips for each period are conceptualized as the frequency of access to transit.

Frequency	Service Type
Infrequent Service	On Demand/ Commuter
2 Buses per Hour	Local Bus
4 Buses per Hour	Local Bus
8 Buses per Hour	High Frequency Bus
12 Buses per Hour	High Frequency Bus
24 Buses per Hour	BRT
40 Buses per Hour	Family of Services
80 Buses per Hour	Family of Services

AM Peak Estimate

- No Service
- Infrequent Service
- 2 Buses per Hour
- 4 Buses per Hour
- 8 Buses per Hour
- 12 Buses per Hour
- 24 Buses per Hour
- 40 Buses per Hour
- 80 Buses per Hour

25

Discussion

- *How well does the analytical approach address the direction of the strategic choice?*

- *For what purposes do you feel it would be most useful to have established regional guidelines for service types?*
  - *To help guide the planning to meet the established regional goal for improving bus*
  - *Documented standards for agency responses to service requests*
  - *Shared set of thresholds to measure the performance of different types of bus service*
  - *Other*
  - *Not very useful*

Role of Metrobus

What services should **Metrobus operate**?

Legend: Current state, Single WMATA leader view, Single SAP member view, Single ESC member view, Single Tech Team member view

Range of potential directions

Metrobus operates all routes across region

Metrobus operates no routes (no buses say "Metrobus"); all routes operated by other bus operators
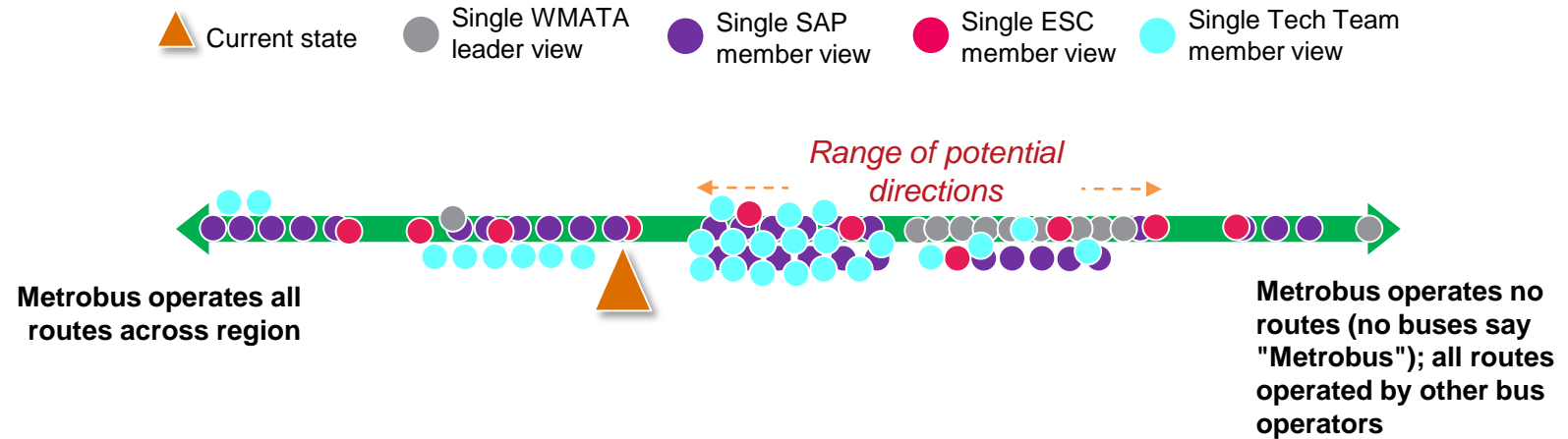
- Project committee voting was split. The average opinion showed interest in exploring Metrobus operating fewer routes than it does today.

- What factors define services to be operated by Metrobus? Explore alternative scenarios which allow evaluation of different factors.

- In re-thinking what Metrobus should operate, explore a new definition for "regional" – **what types of service are best operated by a regional, rather than a local, provider?**

Questions for Discussion

- *How well does the approach that will be proposed address the direction of the strategic choice?*
- *What characteristics or functions justify a route being operated by Metrobus?*

How will this inform the Strategy?
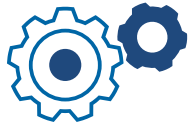
Input

- Define service and operating factors critical to a regional bus network

- Apply constraints based on the WMATA Compact, Jurisdictional authority, and stakeholder guidance

Anticipated Strategy Results

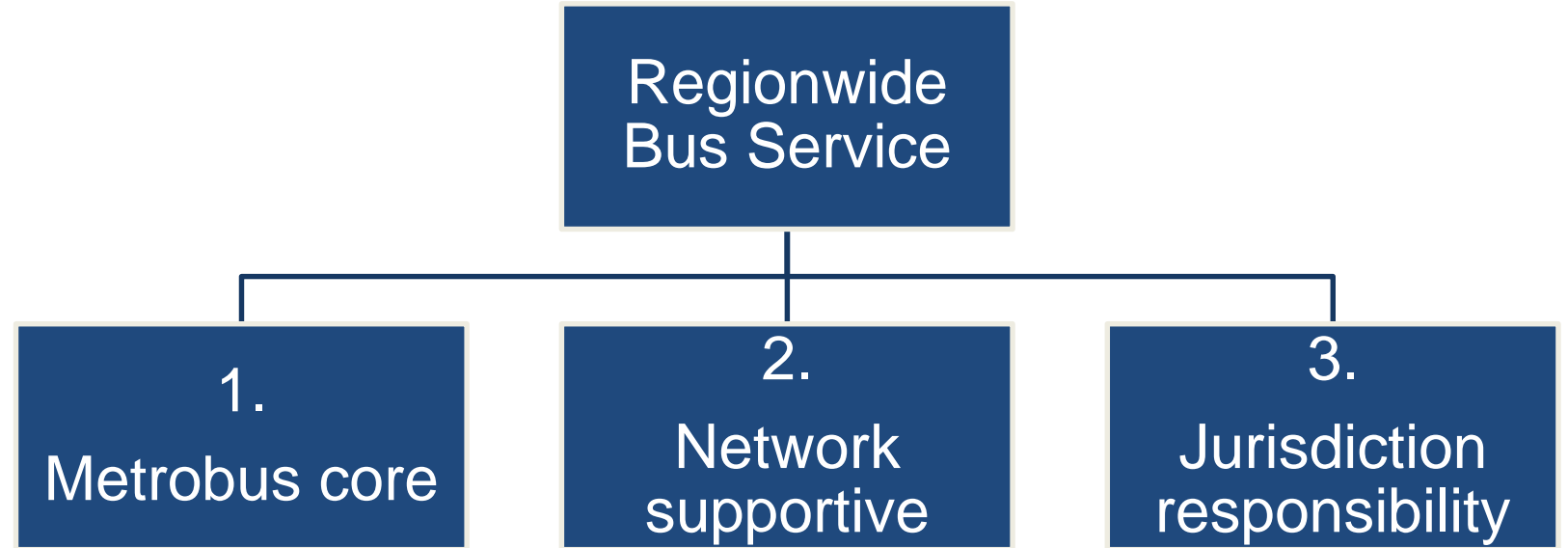- **Efficiency:** Clear definition of the regionally provided bus service provides predictability for decision making, and a sustainable future for bus costs

- **Improved service:** a better product for customers that is frequent and reliable

- **Updated cost allocation formula** would ensure that the region pays the true cost of delivering core bus service

- **Regional goals:** mode share, GHG reduction, person throughput, etc.

Analytical steps to defining the role of Metrobus

1. Define what services are critical from a regional perspective based on:
   - WMATA Compact
   - Jurisdictional limitations
   - Guidance from stakeholders and decision makers

2. Determine metrics and set thresholds to define these services

3. Use thresholds to evaluate the costs and benefits of service increases/decreases

Bus Service Categories

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                    ┌─────────────────┐
                    │   Regionwide    │
                    │   Bus Service   │
                    └────────┬────────┘
          ┌──────────────────┼──────────────────┐
┌─────────┴────────┐ ┌───────┴────────┐ ┌────────┴─────────┐
│       1.         │ │       2.       │ │        3.        │
│  Metrobus core   │ │    Network     │ │   Jurisdiction   │
│                  │ │   supportive   │ │  responsibility  │
└──────────────────┘ └────────────────┘ └──────────────────┘
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Three categories of services are identified:

1. **Metrobus core** would be operated exclusively by Metrobus

2. **Network supportive** services would be operated by Metrobus or a local jurisdiction based upon route characteristics and operational considerations.

3. **Jurisdictions are responsible** for services typically operated by the local agency.

Metrobus Core

Functions associated with purpose stated in the WMATA Compact, and based on jurisdiction and agency input.

Interjurisdictional Service — Providing transit opportunities between jurisdictions and limiting the impacts of jurisdictional boundaries on the design of the transit network and where customers want to travel

Regional Connectivity — Connecting areas with high densities of population and jobs in order to maximize ridership and provide key connections

High Capacity / High Density Corridors — Providing trunk service in areas and on corridors where there is a high potential for frequent all-day transit use, maximizing ridership and providing an attractive alternative to driving

Direct Connections — Providing more direct connections that avoid circuity, focusing operations on major roads resulting in quicker bus connections between destinations

3 Jurisdiction Responsibility

Important functions of bus service provided at the jurisdiction level, recognizing that these services complement Metrobus and complement services in adjacent jurisdictions.

Expansive Coverage
Providing bus service coverage to the geographic extent to which each jurisdiction deems necessary according to local needs.

Responsive to Local Needs
Ensuring that bus service expansion or changes can be nimble and responsive to local needs; jurisdictions are much closer to on-the-ground changes, such as new developments, which precipitate changes to bus service.

Lifeline to Local Services
Providing essential connections between communities and services such as circulator routes and shuttles from neighborhoods to shopping, medical facilities. Short local trips like these may be too small-scale for WMATA.

2 Network Supportive

Critical connectivity within the transit network, provided by Metrobus or local jurisdictions, according to these criteria.

Integration with Rail
Connecting customers via Metrobus to Metrorail on key corridors to provide an attractive and convenient option for accessing Metrorail.

Garage and Asset Location
Utilizing existing and planned garages and other existing or planned assets to achieve cost efficiency.

Transfer Value to the Network
Connecting customers to transfer opportunities widens the reach and benefit of a route to the whole network.

Economic Health and Access to Opportunity
Providing service that operates all day long and on the weekends connects people with economic opportunities and access to jobs.

Discussion

- *How well does the analytical approach address the direction of the strategic choice?*

- *What characteristics or functions justify a route being operated by Metrobus?*
  - *Interjurisdictional*
  - *Regional Connectivity*
  - *High Capacity / High Density Corridors*
  - *Direct Connections*
  - *Other*

- *What characteristics or functions justify a route being operated by jurisdictions?*
  - *Expansive coverage*
  - *Responsive to local needs*
  - *Lifeline to local services*
  - *Other*

Appendix

Working definitions for service responsibility of the regional provider and jurisdictions
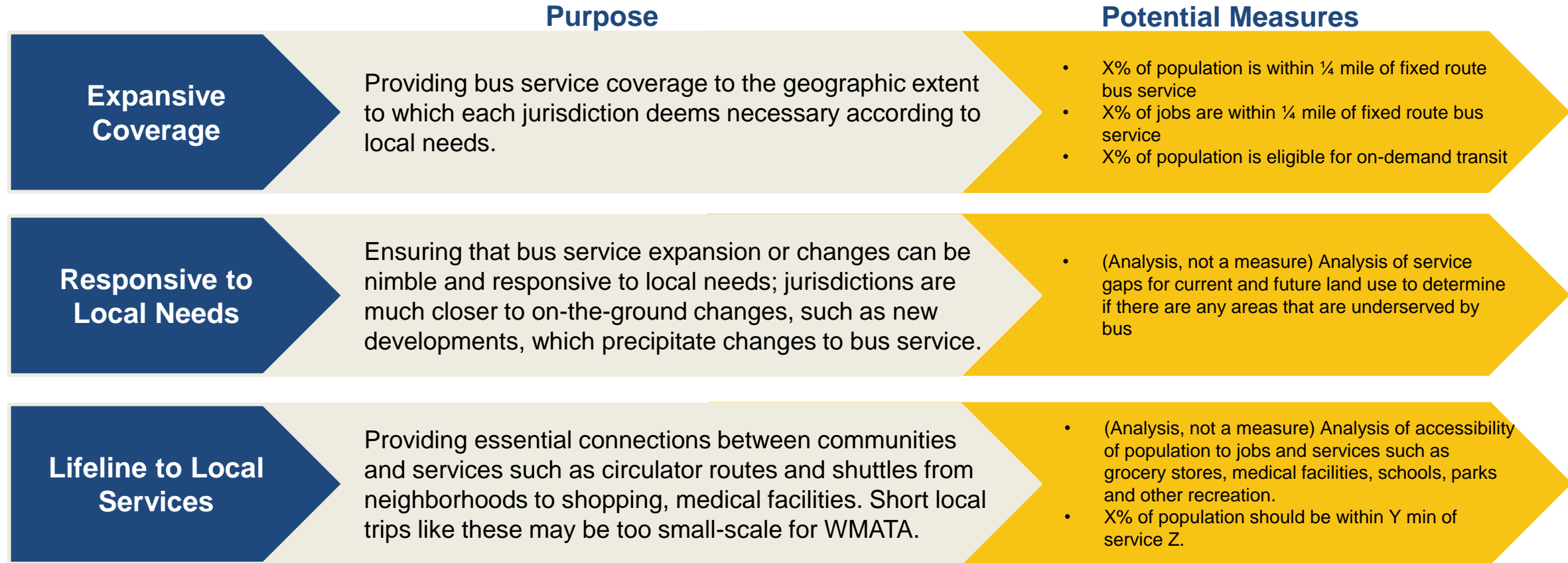
1 Metrobus Core

Functions associated with purpose stated in the WMATA Compact and jurisdictional feedback.

	Purpose	Potential Measures
Interjurisdictional Service	Providing transit opportunities between jurisdictions and limiting the impacts of jurisdictional boundaries on the design of the transit network.	• X miles traveled into 2 or more jurisdictions • X stops within 2 or more jurisdictions • Traveling to within X distance of a jurisdictional boundary
Regional Connectivity	Connecting areas with high densities of population and jobs in order to maximize ridership and provide key connections.	• Serves at least X Activity Centers • Serves at least 2 Activity Centers across 2 or more jurisdictions • Serves at least X non-adjacent Activity Centers
High Capacity / High Density Corridors	Providing trunk service in areas and on corridors where there is a high potential for transit use, maximizing ridership and providing an attractive alternative to driving.	• Average along route of population + jobs per acre > X (50, 30…) currently or by 2030 • Top X% (5%, 10%...) of corridors in the region by AADT • Corridors providing connections between X% highest volume trip flows across the region
Direct Connections	Operating on major roads with higher speeds that connect destinations, rather than on neighborhood streets at slower speeds with more circuitous paths, will increase operating speeds.	• X% or more of the route miles are on the National Highway System • Circuity measure of less than 1.25 (circuity is ratio of the route's length to straight-line distance between first and last bus stop; the minimum score is "one" which indicates that that the route is traveling directly to its end location)

3 Jurisdiction-Provided

Important functions of bus that are unrelated to the purpose of Metrobus.

	Purpose	Potential Measures
Expansive Coverage	Providing bus service coverage to the geographic extent to which each jurisdiction deems necessary according to local needs.	• X% of population is within ¼ mile of fixed route bus service • X% of jobs are within ¼ mile of fixed route bus service • X% of population is eligible for on-demand transit
Responsive to Local Needs	Ensuring that bus service expansion or changes can be nimble and responsive to local needs; jurisdictions are much closer to on-the-ground changes, such as new developments, which precipitate changes to bus service.	• (Analysis, not a measure) Analysis of service gaps for current and future land use to determine if there are any areas that are underserved by bus
Lifeline to Local Services	Providing essential connections between communities and services such as circulator routes and shuttles from neighborhoods to shopping, medical facilities. Short local trips like these may be too small-scale for WMATA.	• (Analysis, not a measure) Analysis of accessibility of population to jobs and services such as grocery stores, medical facilities, schools, parks and other recreation. • X% of population should be within Y min of service Z.

2 Network Supportive

Critical connectivity within the transit network, provided by Metrobus or local jurisdictions, according to these criteria.

	Purpose	**Potential Measures**
Integration with Rail	Connecting customers via Metrobus to Metrorail on key corridors to provide an attractive and convenient option for accessing Metrorail.	• Route connects to X Metrorail stations • Route connects X Activity Centers with X Metrorail stations • Route is in top X% of all routes in terms of providing transfer opportunities to Metrorail
Garage and Asset Location	Utilizing existing and planned garages and other existing or planned assets to achieve cost efficiency.	• Maintain X level of usage at each Metrobus garage and other Metrobus facilities in order to maintain cost efficiency
Transfer Value to the Network	Connecting customers to transfer opportunities widens the reach and benefit of a route to the whole network.	• Route connects to X other bus routes • Route is in top X% of all routes in terms of providing transfer opportunities to other bus routes
Economic Health and Access to Opportunity	Providing service that operates all day long and on the weekends connects people with economic opportunities and access to jobs.	• X% of population can reach jobs within 45-minute transit commute (test during different time periods including peak, weekday off-peak, and weekend)