

Fare Coordination/ Integration Study + Business Case

Project Update &
Discussion of Proposed Fare Scenarios
for Detailed Analysis



Fare Integration Task Force

February 16, 2021

Agenda Item 5



Task Force Meeting Overview

Today's discussion is focused on the emerging short list of options to be considered in the FCIS.

GOALS

1. Review the overall fare policy development process
2. Discuss the long list screening criteria and resulting short list

CONTEXT



Task Force Meeting Overview

AGENDA

1. Project update

2. Process check

3. Short List Discussion

4. Next Steps

Appendix: Long list overview and short list evaluation



Is the process here consistent with expectations?



Should we proceed with the emerging shortlist?

1. Project Update

Overview of progress to date



Project Outlook

- **May 2020** - Project team kick off – Staff Working Group + Consultants
- **July – Dec. 2020** – Initial analysis of existing travel market, review of fare policies and governance structures of peer regions, and preliminary user research activities
- **Dec. 2020 - Feb. 2021** – *Project team begins to define fare coordination and integration scenarios for detailed analysis*
- **Jan. 25, 2021** – *Project update at Blue Ribbon Transit Recovery Task Force meeting*
- **Feb. 16, 2021**– *Project team develops short list for FCIS Task Force consideration*
- **Spring 2021** – Project team conducts detailed analysis of financial, ridership, and user impacts and develops implementation strategies
- **Summer 2021**– Project team presents final report and recommendations to the Fare Integration Task Force

Overview: Bay Area Fare Coordination and Integration Study Progress

		What we have done	In progress	What is next
1	Problem Statement + Goals	Problem statement Key issues	Goal setting	Map of benefits
2	Existing Conditions and Background Research	Market research (NHTS) Previous studies Peer agencies review		
3	Barriers to Transit Ridership		Synthesis of user research and existing conditions	
4	Alternatives Development		Development and selection of alternatives	
5	Alternatives Analysis/ Business Case		Development of business case methodology	Performance comparison
6	Recommendations and Implementation Plan			Recommendations and implementation plan
7	Stakeholder Engagement and User Research	Stakeholder approach plan Pilot user research workshop	1-1 interviews and “Sensemaker” survey tool	Prototyping shortlist options, co-design workshop

2. Process Check

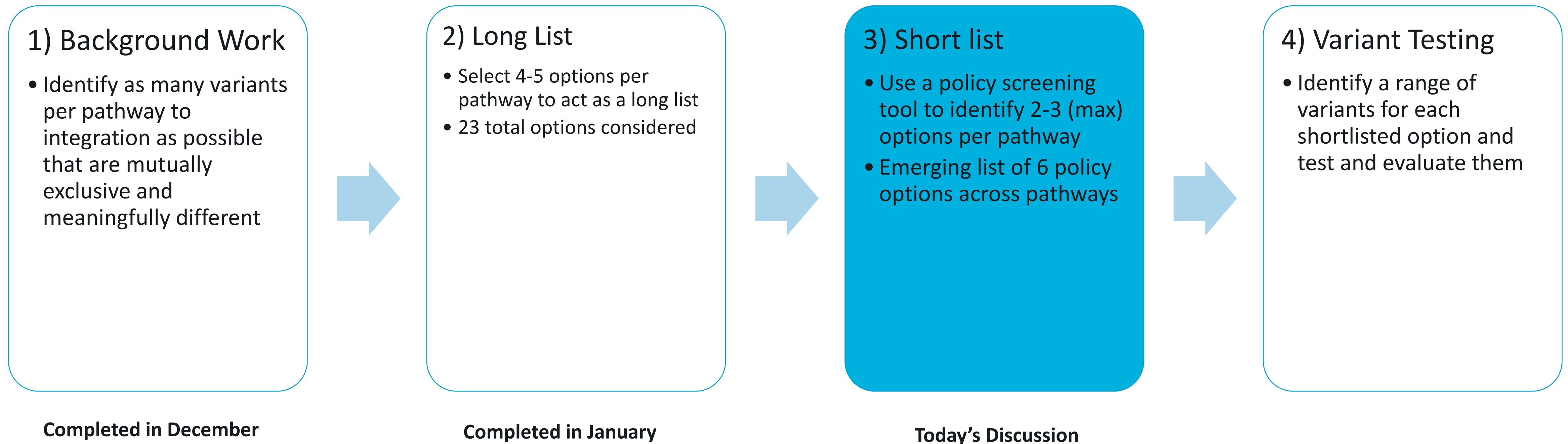
Provides background on next steps and how the short list will be used



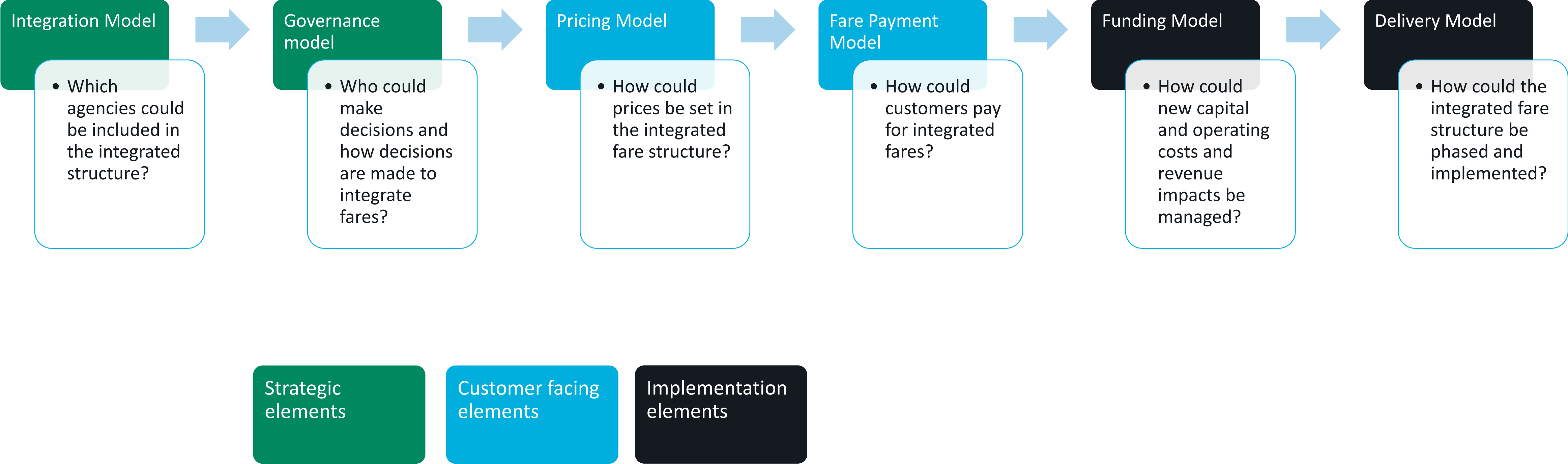
Photo: Paul Chinn

Option Development Process Overview

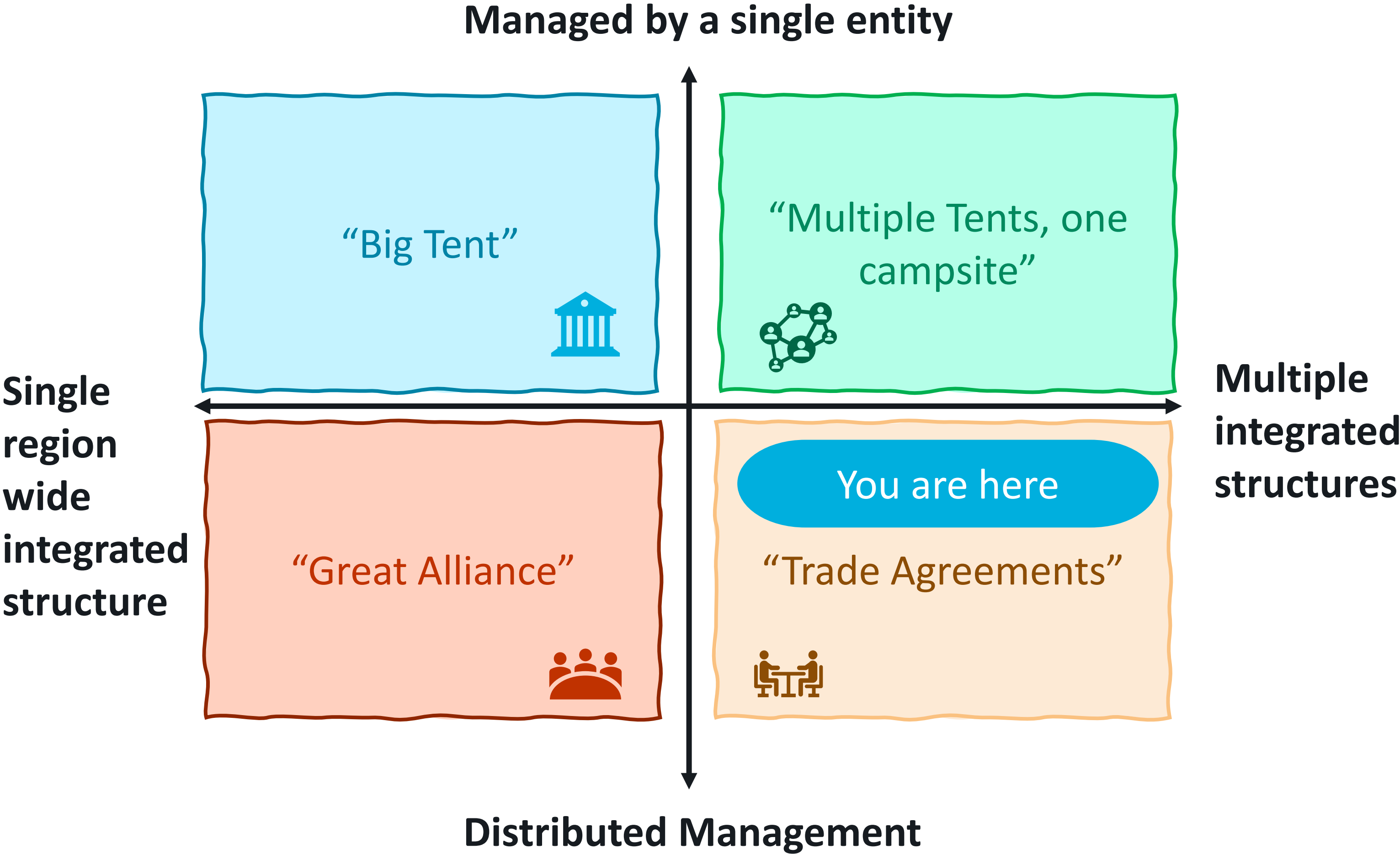
An option is defined as a potential ‘high-level’ fare structure for the region that uses a combination of single and multiple trip pricing tools to integrate fares. Variants based on specific prices, passes, caps, or products are considered in steps 3 and 4.



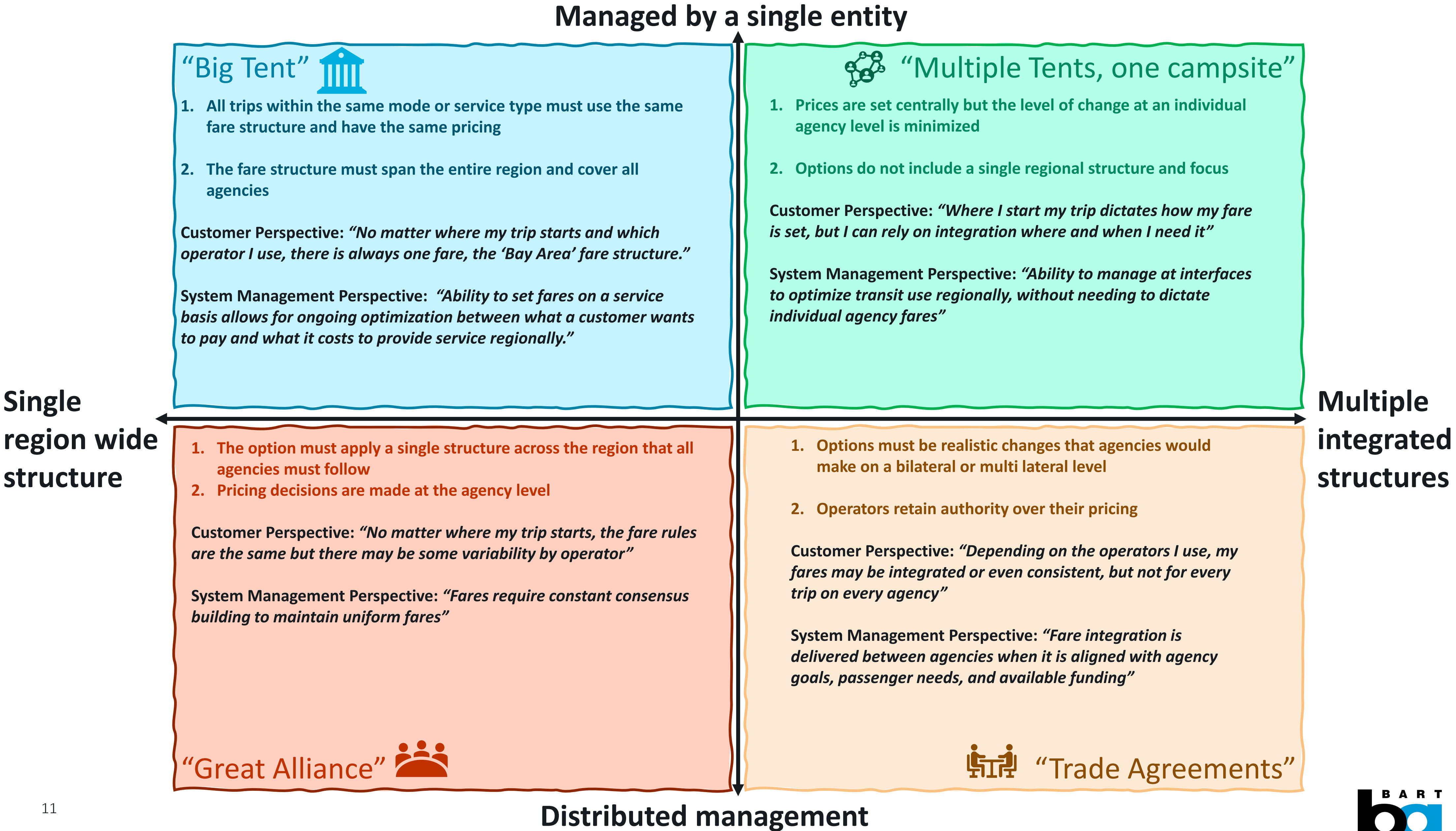
Six Elements of Fare Coordination and Integration



Recap: Potential Pathways to Integration



How can pricing model be explored under the pathways framework?



Policy Terms

The following terms are used within this discussion and across the broader project:

Fare Structure

A set of rules and policies that determine how fares are set

Structural Options

Fare structure options that vary based on the approach used to price transit

Today we will explore a long list of structural options for each pathway to integration

Pricing Variants

Individual variants of different fare structures based on the types of prices set for each mode, service, and/or operator

Today we will explore the types of variations that should be considered in each option

Example: zones

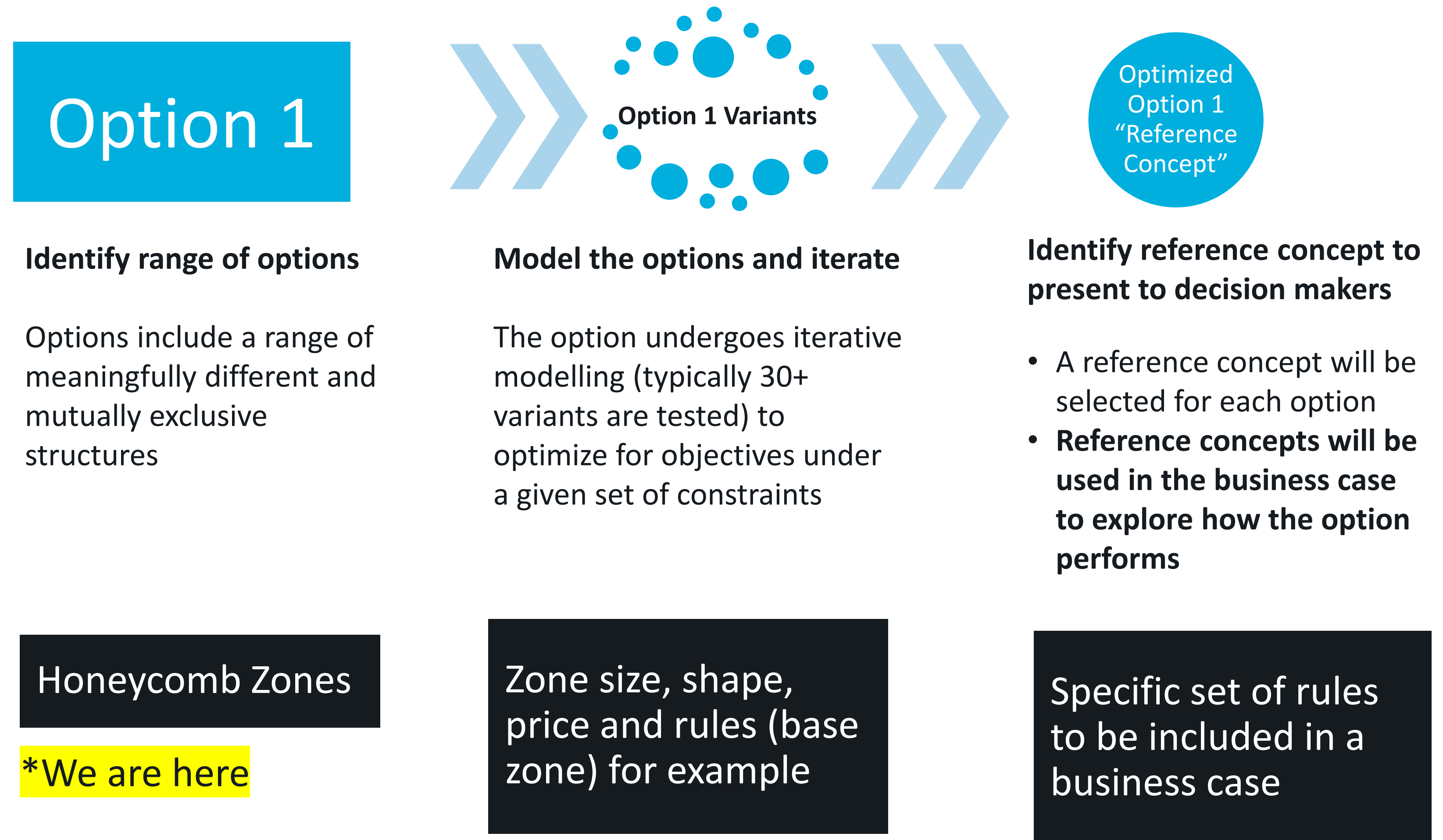
Example: zones with specific prices (\$1.50 per zone, second zone is free)

Look Ahead: Testing Variants to Identify Reference Concept for Business Case

The short list we will discuss today focus on the six highest potential sets of fare policies identified during the long list process.

These options bundle a series of ‘policy actions’ or changes into a revised fare structure for the Bay Area.

However, there are still high-level policy options and each has multiple variants.



Look Ahead: Testing Variants

Variants will be developed based on three-part public policy framework that focuses on the desired benefits (outcomes) of a policy, the boundaries (constraints) that the policy must be delivered within, and the range of changes (actions) that can be made to realize the benefits.

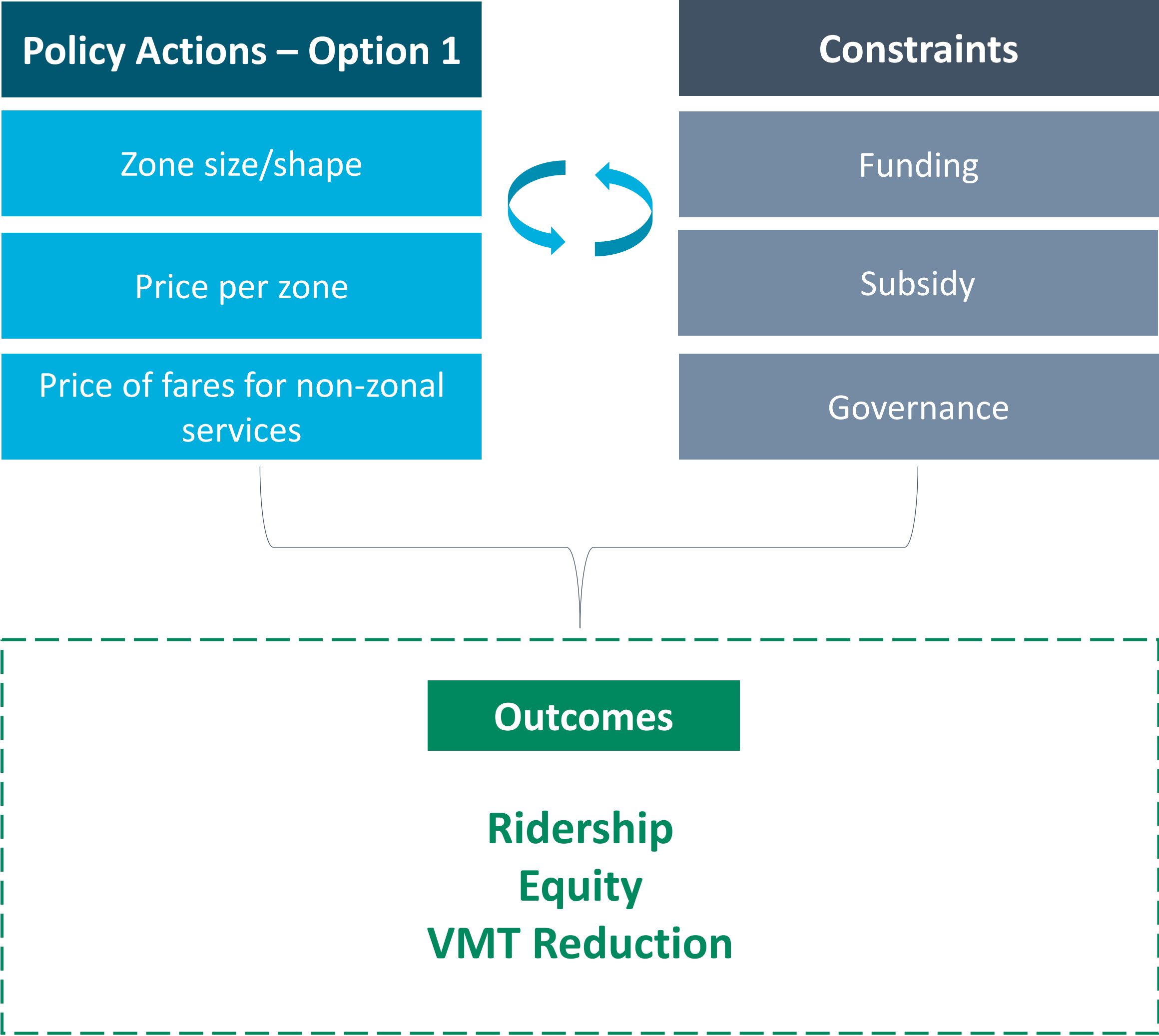
1. Identify desirable **outcomes** first, for example: increased ridership, equity, and VMT reductions
2. Define a set of **constraint** scenarios that illustrate different levels of available resources (this is currently unknown) to aid in case making, for example: funding, ongoing subsidy, governance/level of agency control
3. Iteratively test variations on a set of policy actions to **optimize outcomes** and make the case for levels of investment



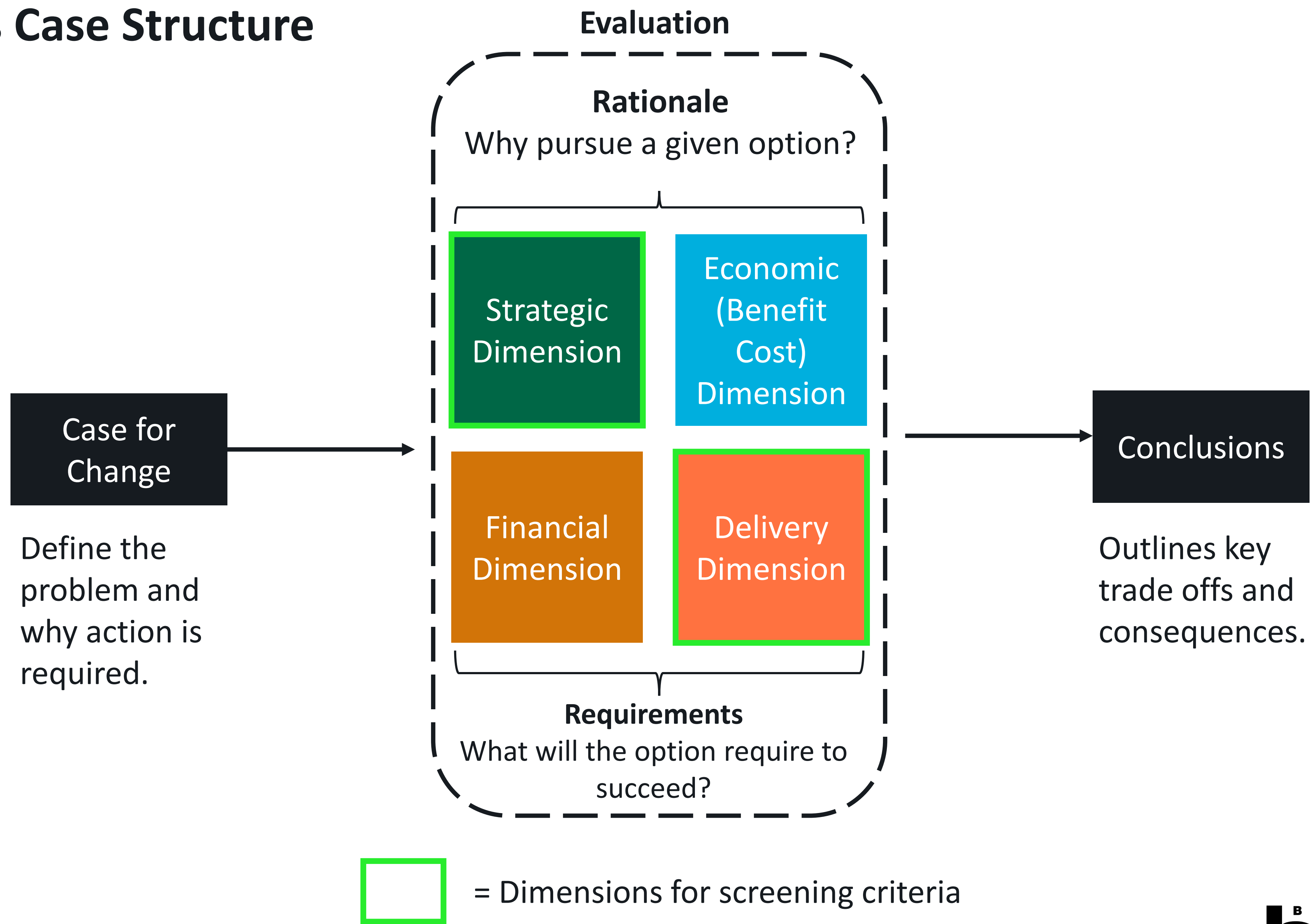
Focus on Outcomes

The outcomes an option realizes are shaped by the actions optimized under a given set of constraints.

Specifying **outcomes first** and optimizing actions under a variety of constraint scenarios can lead to more robust policy.



Business Case Structure

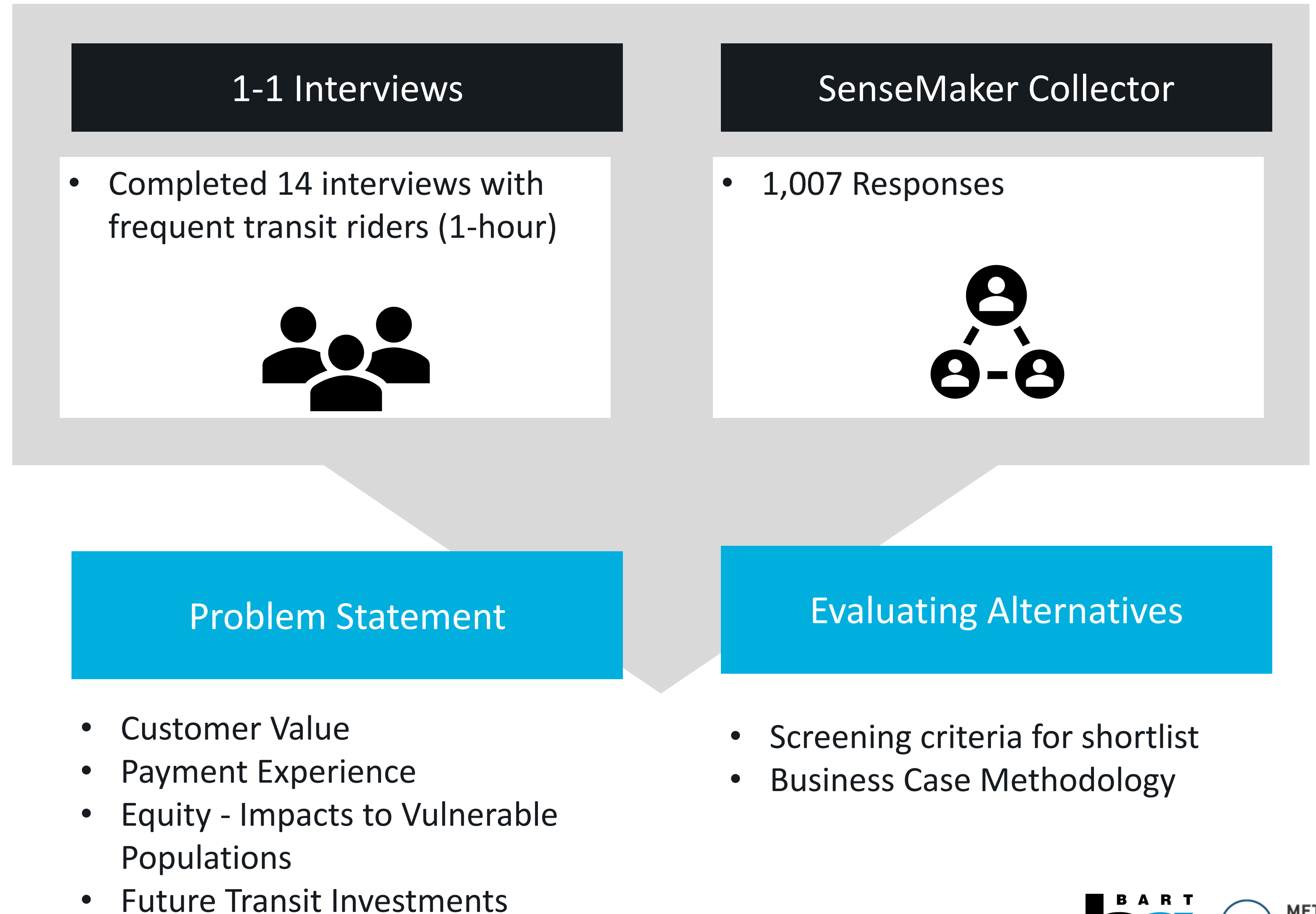


Testing Assumptions with User Research

Qualitative user research methods are used to **test and validate** findings from policy analysis and quantitative research.

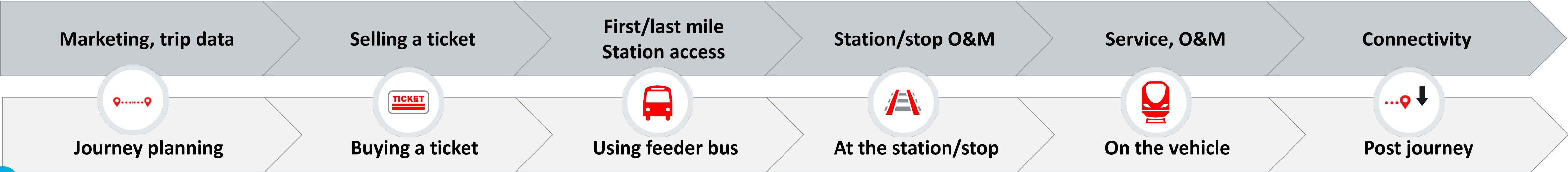
Methods use a **journey-based model** to understand barriers to transit.

- How do customers perceive the existing product offer and payment experience?
- How does the payment experience connect to the broader transit experience?
- What works well? What are the pain points?



Understanding customer experience and barriers to transit

Agency and customer experience



I looked at both VTA and BART [websites]...And I would say I have the luxury of time. A lot of people don't...Yeah, I mean it's annoying and I would be gnashing my teeth but **if I wanted to go badly enough I would figure it out.**"

"We're both waiting, kind of anxious. Longest time and then didn't show up...**we ended up taking a Lyft together.**"

"A lot of the stations are in poor upkeep like the escalators. They have closed some of the entrances off...**people have to walk a great distance** to get to an open entrance to enter."

"Don't forget to tap off because you can double, triple your fare...**I think that's how they [agencies] make a lot of money...**"

"I think overall, it's just rough, but the payment of \$7.40...because **\$4.00 for me is already kind of rough**, plus \$14...that's like a whole, like a good portion of general maintenance, groceries, you know..."

"I have my Clipper card and what I used to do is I would go to the Walgreens to load it and that was very convenient. But, they closed that Walgreens store...so **I don't know what I'm going to do now frankly.**"

"I don't know if I really want to be on [transit] for an hour you know, because of the pandemic. Those kind of trips...I **hesitate to do it.**"

3. Short List Discussion

Explores the emerging short list of options for detailed analysis



Photo: Paul Chinn

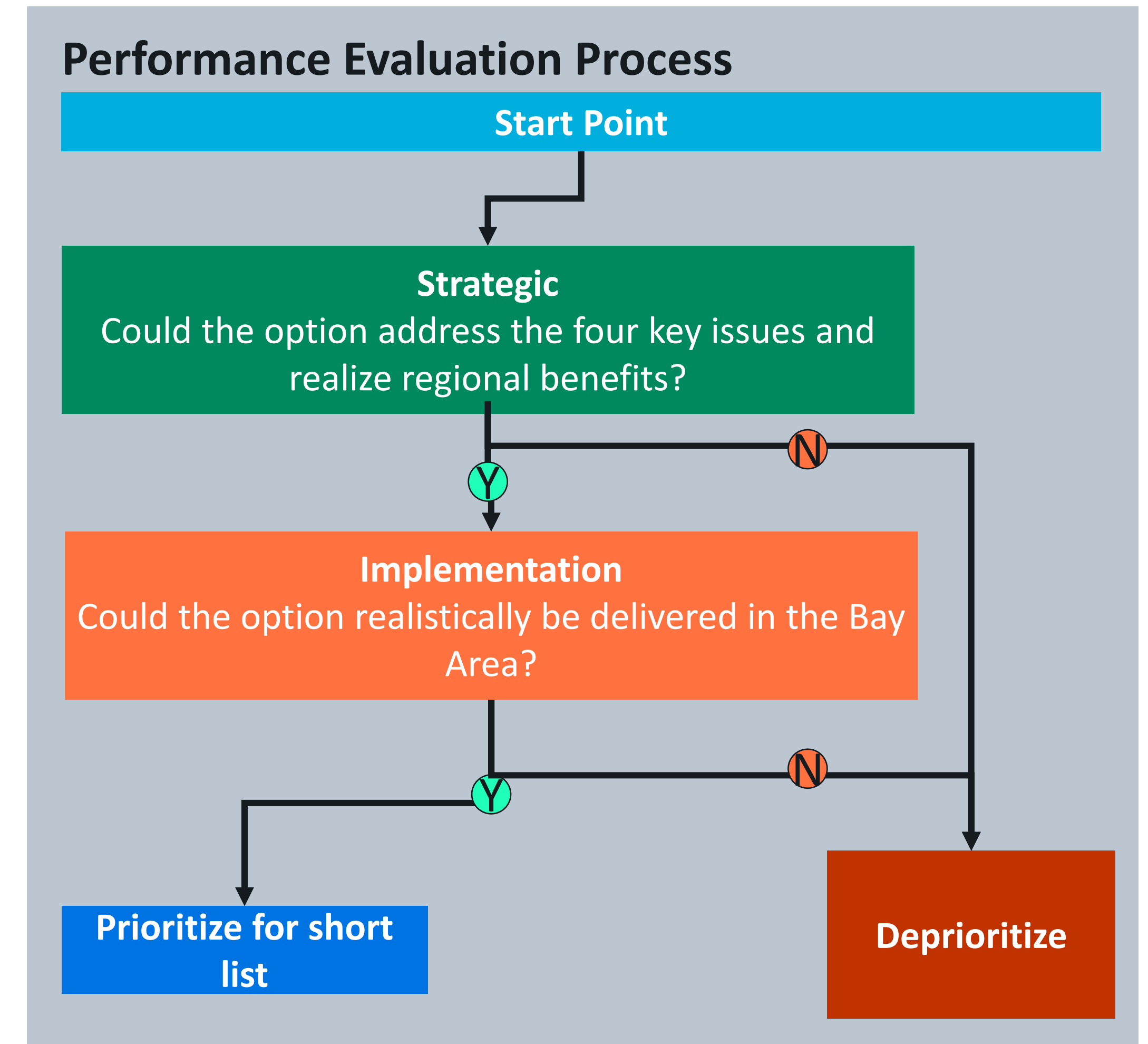
Screening Framework

The screening framework focuses on selecting the options that are most likely to perform best in the business case stage. This framework is not used to select a structure for delivery, but it is used to prioritize structures for further work.

A set of options will be selected in each delivery pathway to answer the **questions**: what is the strongest performance fare integration could attain across varying governance and integration models?

The analysis uses two screens each with a set of metrics:

- **Strategic Screen (is the option fit for purpose?)**
 - How will the structure improve the alignment of fare with trip value?
 - How will the structure support an improved customer experience?
 - How will the structure address equity issues?
 - How will the structure support future transit plans?
- **Implementation Screen (does the option have any fatal flaws)?**
 - Is the option readily deliverable within the 'pathway'?



Evaluation Terminology and Approach

This evaluation is focused on the benefits and trade offs of mitigating the fare integration barriers in the current structure.

Across all evaluation categories, the following terms are used:

- **Structural Impacts** – impacts to customers that are inherent in the structure and will require additional programs (such as concessions) to mitigate
- **Fare Barriers** – situations where the current fare policy across the region may reduce trips using multiple agencies or reduce the use of transit for ‘regional’ (longer distance trips between sub-regions in the Bay Area)

Analysis Overview

- Each of the five criteria are evaluated on a 0-3 scale with an score of zero being a ‘fatal flaw’ - meaning the option is deprioritized regardless of performance in the other metrics.
- Metrics are assessed based on positive performance and negative performance to calculate a total score
- The goal of this approach is to identify the highest potential options for more detailed and resource intensive work

Examples of Option Performance

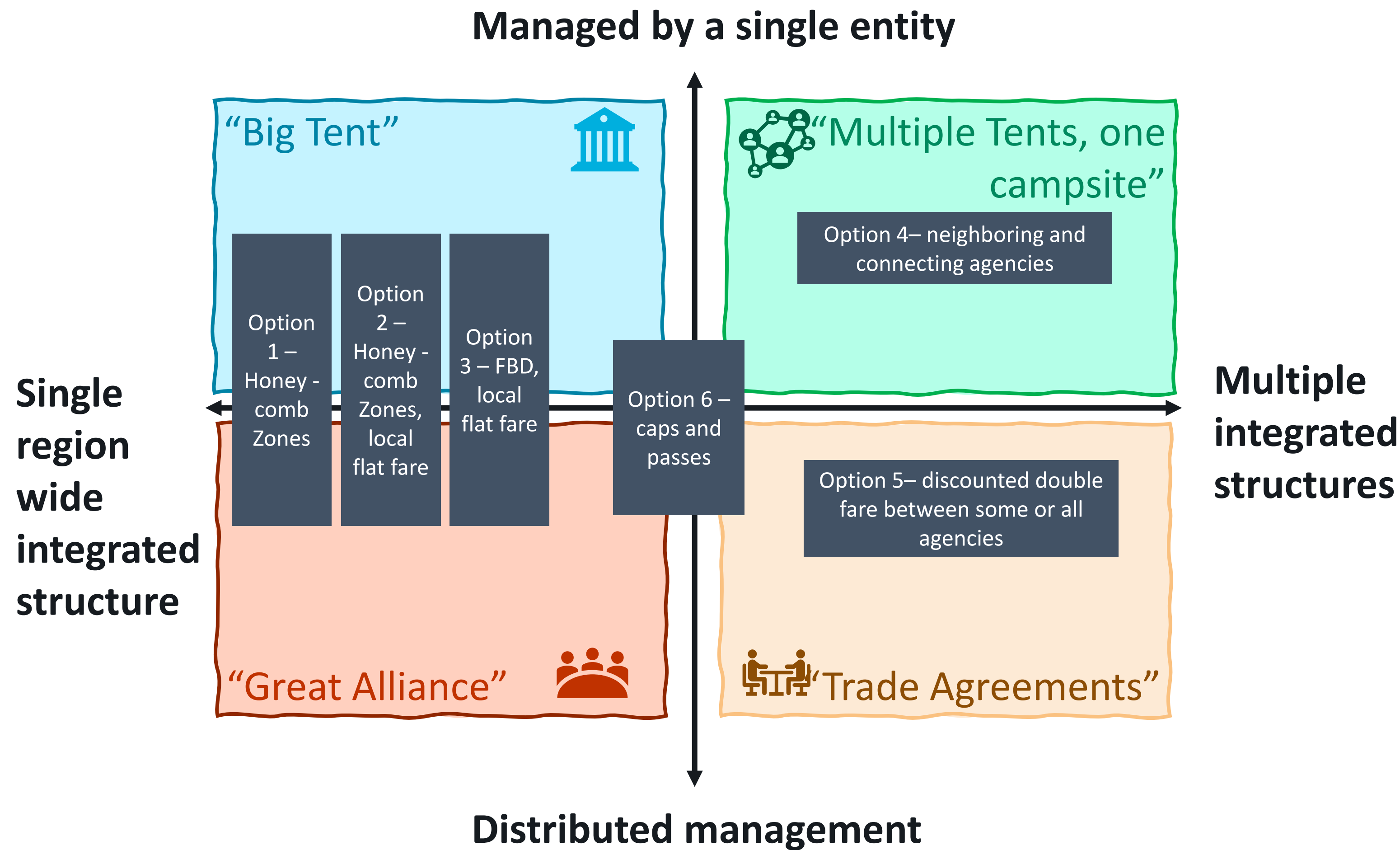
	Options that perform well...	Options that perform poorly ...
How will the structure improve the alignment of fare with trip value?	The option addresses existing fare barriers (such as double fares)	The option only addresses some fare barriers and could potentially ‘move’ the barrier or create new barriers for locally focused trips (those on one operator or within a focused geography)
How will the structure support an improved customer experience?	The option can be delivered with a single fares experience for most or all trips on multiple agencies	Are unlikely to offer an improved customer experience for the majority of multi-agency trips or may negatively impact travellers making more locally focused trips (those on one operator or within a focused geography)
How will the structure address equity issues?	Do not add additional equity issues and address existing equity issues	Are likely to create further equity issues to address (example: raising fares for agencies with large portion of lower income riders) that need to be addressed with additional policies
How will the structure support future transit plans?	The option is likely to make it easier for customers to use new transit as part of multi agency trips	The option is unlikely to make it easier for customers to use future transit as part of multi agency trips
Is the option readily deliverable within the ‘pathway?’	The option has is likely to be deliverable with minimal changes to Clipper 2	The option will likely require technology (including software and hardware) beyond Clipper 2

Emerging Shortlist

Short List	Big Tent	Great Alliance	Multiple Camp Sites	Trade Agreements
1. Honeycomb Zones	Yes – A1	Yes – B1 but with agencies setting fares within their service area	No	No
2. Honeycomb Zones, local flat fare	Yes – A2	Yes – B2 - agencies retain ability to set own local service fare	No	No
3. Fare by Distance, local flat Fare	Yes- A4	Yes – B5 agencies retain ability to set own local service fare	No	No
4. Neighboring and Connecting Agencies	No	No	Yes – C2 – this option would aim to align service types where possible and remove barriers between specific agency pairs	No
5. Discounted Double fares	No	No	No	Yes – D1 between select agencies
6. Caps and Passes	Yes – A6 one cap/pass for all operators	Yes – B6 one cap/pass for all operators	Yes – C4 caps/passes for specific groups	Yes – D2 caps/passes 2-3 agencies

Options- mapped against quadrants

This set of options provides at least two options per pathway, meaning the study will review options that are relevant to the Bay Area regardless of future governance models.



Emerging Short List – Potential Variants

Short List	Overall Policy Changes	Variant Types
1. Honeycomb Zones	<ul style="list-style-type: none">All modes use one fare structure - zones	<ul style="list-style-type: none">Price by mode: Prices per zone per mode could be different or sameRole of agencies: Agencies could retain fare setting powers (b1) for ‘one zone’ trip or trips within an agency or these could be standardizes (a1)Zone Shape and size: a range of zone sizes and shaped could be tested
2. Honeycomb Zones, local flat fare	<ul style="list-style-type: none">Local services (to be defined) would use a ‘free transfer’ flat fareHigher order service (to be defined) would use zones	<ul style="list-style-type: none">Price by mode: Prices per zone for higher orderRole of agencies: Agencies could retain fare setting powers (b2) for ‘one zone’ trip or trips within an agency or these could be standardizes (a1)Zone Shape and size: a range of zone sizes and shaped could be tested
3. Fare by Distance, local flat Fare	<ul style="list-style-type: none">Local services (to be defined) would use a ‘free transfer’ flat fareHigher order service (to be defined) would use FBD	<ul style="list-style-type: none">Initial flat fare for fare by distance: length and priceDistance pricing mechanism: slopes (\$ per mile) vs. steps (\$ per set of miles) and step sizeRole of agencies: Agencies could retain fare setting powers (b5) for ‘one zone’ trip or trips within an agency or these could be standardizes (a4)Price of flat fare for local services
4. Neighboring and Connecting Agencies	<ul style="list-style-type: none">Logical agency pairs are identified and specific fare policies will be developed with an emphasis on:<ul style="list-style-type: none">Integrating higher order agencies where logical (example: aligning Caltrain and BART fares)Reducing double fares for connecting services to higher orderReducing double fares between neighboring local services	<ul style="list-style-type: none">Whether or not to align pricing on all higher order: one continuous pricing approach for some or all higher order vs. retaining status quoAgency participation: Which agencies are included in clusters?Level of double fare discounts: setting discounts between local to local and local to higher order (free, 25%, 50%, etc)
5. Discounted Double fares	<ul style="list-style-type: none">Reducing double fares between individual agency pairs only	<ul style="list-style-type: none">Agency participation: Which agencies are included?Level of double fare discounts: setting discounts between local to local and local to higher order (free, 25%, 50%, etc)
6. Caps and Passes	<ul style="list-style-type: none">Setting up passes or caps at a multi agency or regional level	<ul style="list-style-type: none">Agency participation: Which agencies are included?Cap vs passTime (daily, weekly, monthly, flexible)Pricing and break even point

Options Screened Out

Option Type	Options on Long List	Rationale
Region Wide Flat Fare	A7	Does not fully support planned system expansion and capacity and crowding management. Challenging to generating required revenues at an agency level without either a high region wide flat fare or significant subsidy.
Circular Zones	A3, B3	Likely to create a range of arbitrary new fare barriers due to the geographic shape and organization of the region, unlikely to fully support future system expansion.
Fare by Distance on All Modes	A4, B4	Scored low due to higher technical requirements for successful delivery and operational impacts on local buses.
Corridor Pricing	C1, C2	May create further equity issues and did not fully address study problem statement.
Increased Harmonization	A8, D3	Unlikely to address study problem statement (example: aligning bus fares in two separate agencies is unlikely to increase inter agency travel if double fares still exist)

4. Next Steps

Confirming Direction for the FCIS Detailed Analysis



Next Steps

Direction sought:

- To advance options 1-6 to the detailed analysis stage

Next steps for analysis:

- Develop a forecasting platform for the short list
- Conductive iterative analysis and optimization










Appendix: Long List Overview and Short List Evaluation









Comparing Options by Trip Type

The following section compares different trips types under each Fare Policy Option:

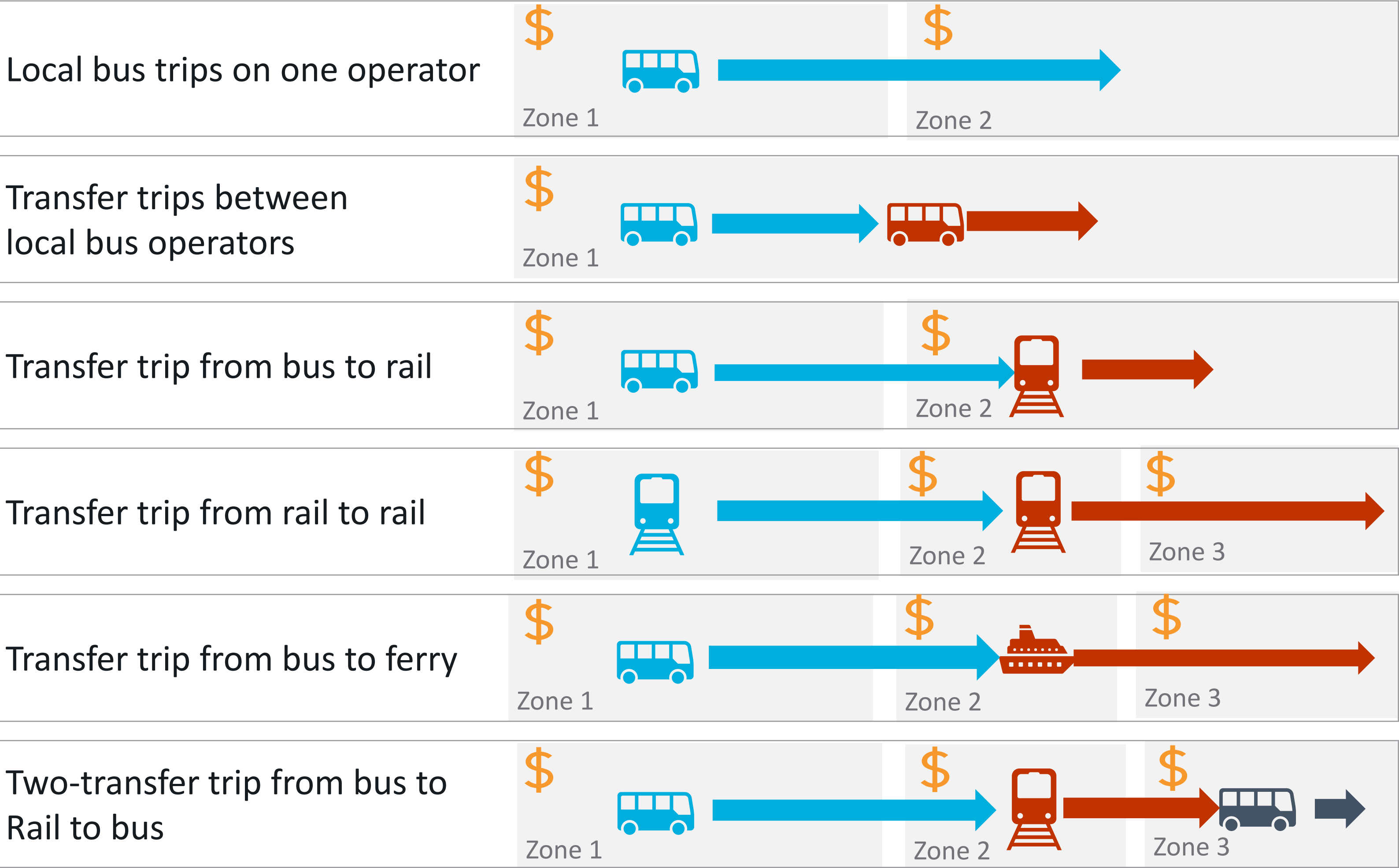
- 1. Local bus trips on one operator
- 2. Transfer trips between two local bus operators
- 3. Transfer trips from local bus to rail
- 4. Transfer trips between rail services
- 5. Transfer trips between bus and ferry services
- 6. Two-transfer trips between from bus to rail to bus

Legend			
	Local bus		1 st operator
	Rail		2 nd operator
	Ferry		3 rd operator
	Points in journey where fare increases		
	Discount or total refund applied upon changing operator		
	Pass or cap applied to multiple operators		

Existing fare policy

Local bus trips on one operator		Single operator fare
Transfer trips between local bus operators		Double fares = operator 1 + operator 2
Transfer trip from bus to rail		Double fares = operator 1 + operator 2
Transfer trip from rail to rail		Double fares = operator 1 + operator 2 (fares are distance or zonal based)
Transfer trip from bus to ferry		Double fares = operator 1 + operator 2
Two-transfer trip from bus to Rail to bus		Double fares = operator 1 + operator 2 (rail, distance based) + operator 3

Option 1: Honeycomb Zones (A1, B1)



Some trips on a single operator pay a multi-zone fare.

Base on number of zones travelled. This trip would be a one zone fare but other could be 2, 3, 4, or more zones.

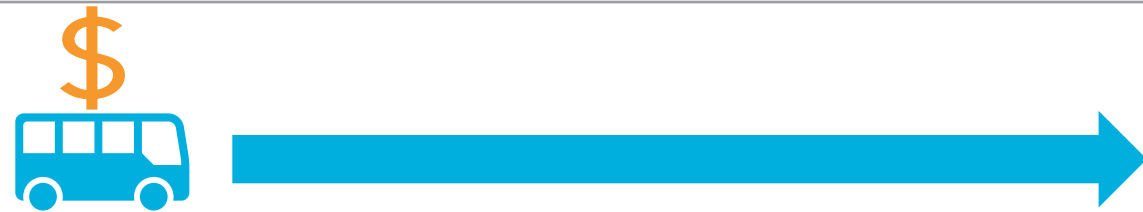

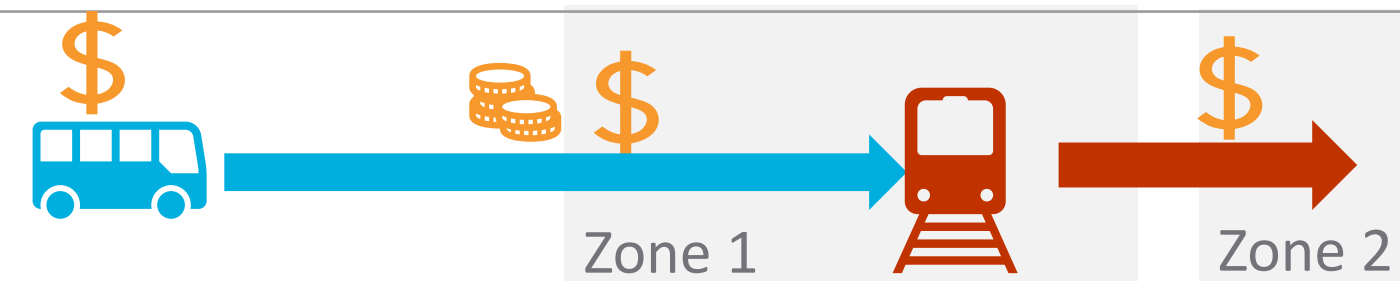

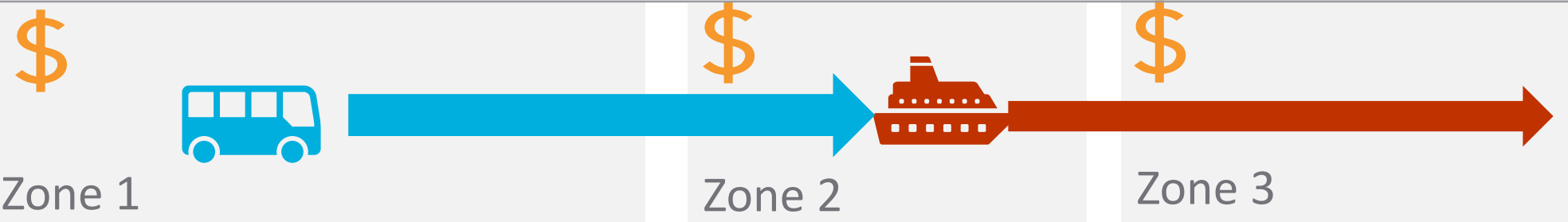
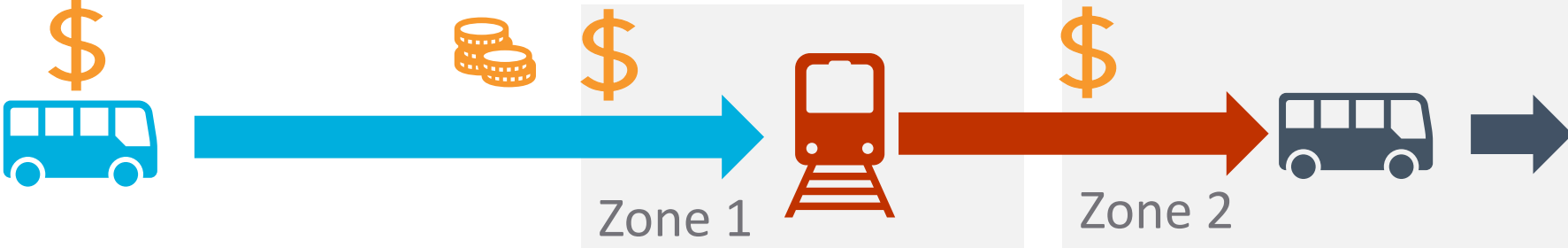
Base on number of zones travelled. This trip would be a two zone fare.

Base on number of zones travelled. This trip would be a three zone fare.



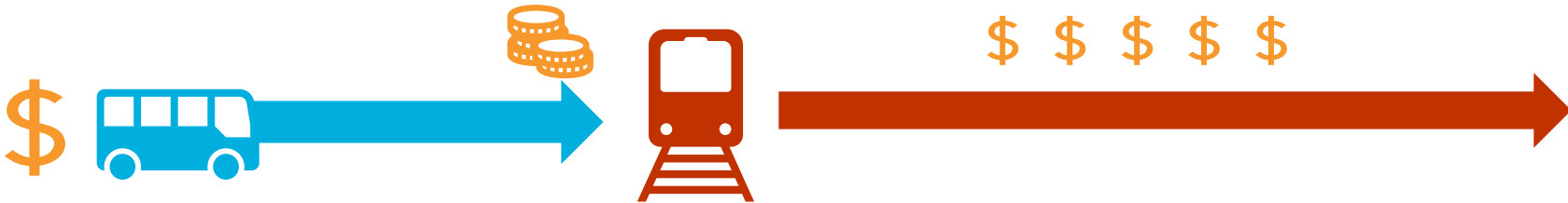



Base on number of zones travelled. This trip would be a three zone fare.

Base on number of zones travelled. This trip would be a three zone fare.





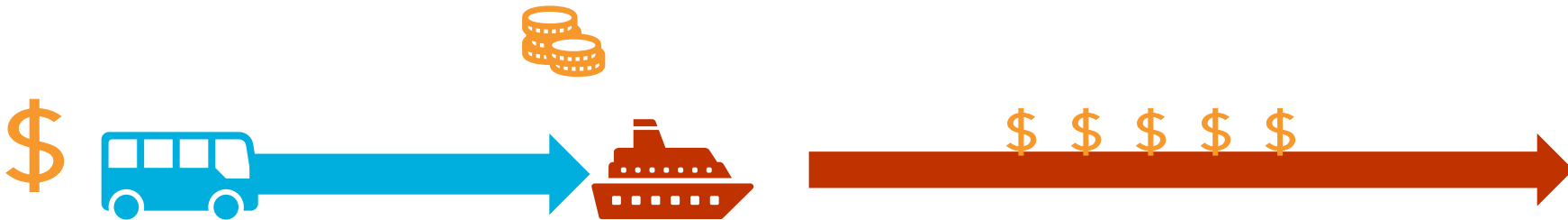

Option 2: Honeycomb Zones w/ local flat fare

Local bus trips on one operator		Flat fare regardless of distance travelled.
Transfer trips between local bus operators		Flat fare regardless of distance travelled and modes used.
Transfer trip from bus to rail		Based on number of zones travelled, this trip would be a two-zone fare. The initial bus fare is refunded when rail is boarded.
Transfer trip from rail to rail		Base on number of zones travelled. This trip would be a three zone fare.
Transfer trip from bus to ferry		Base on number of zones travelled. This trip would be a three zone fare.
Two-transfer trip from bus to Rail to bus		Base on number of zones travelled. This trip would be a two zone fare and the first bus fare is refunded when boarding rail.

Option 3: Distance-based fares, with local flat fare

Local bus trips on one operator		Single operator fare
Transfer trips between local bus operators		Single flat fare regardless of number of agencies used to make the trip
Transfer trip from bus to rail		Distance based fare for rail, with a free transfer from local bus service operator (local operator fare could be 100% refunded on transfer, traveler only pays rail fare)
Transfer trip from rail to rail		A continuous distance fare based on total distance travelled on each rail service
Transfer trip from bus to ferry		Fare is based on distance travelled on ferry with a free transfer from local bus services
Two-transfer trip from bus to Rail to bus		Fare is based on distance travelled on rapid transit, with local operator fares being fully discounted.

Option 4: Neighboring and Connecting Agencies

Local bus trips on one operator		Single operator fare
Transfer trips between local bus operators		Discounted or free transfer if operators are neighboring agencies
Transfer trip from bus to rail		Discounted or free transfer from bus to rail (feeder)
Transfer trip from rail to rail		Fares are aligned for connecting rail services for one continuous distance fare
Transfer trip from bus to ferry		Discounted or free transfer between connecting buses and ferry, ferry uses distance fares
Two-transfer trip from bus to Rail to bus		Discounted or free transfer between each operator, level of discount may vary between blue bus and grey bus

NOTE: level of discount between each neighboring agency pair or connecting agency pair may be unique.

Option 4: Example

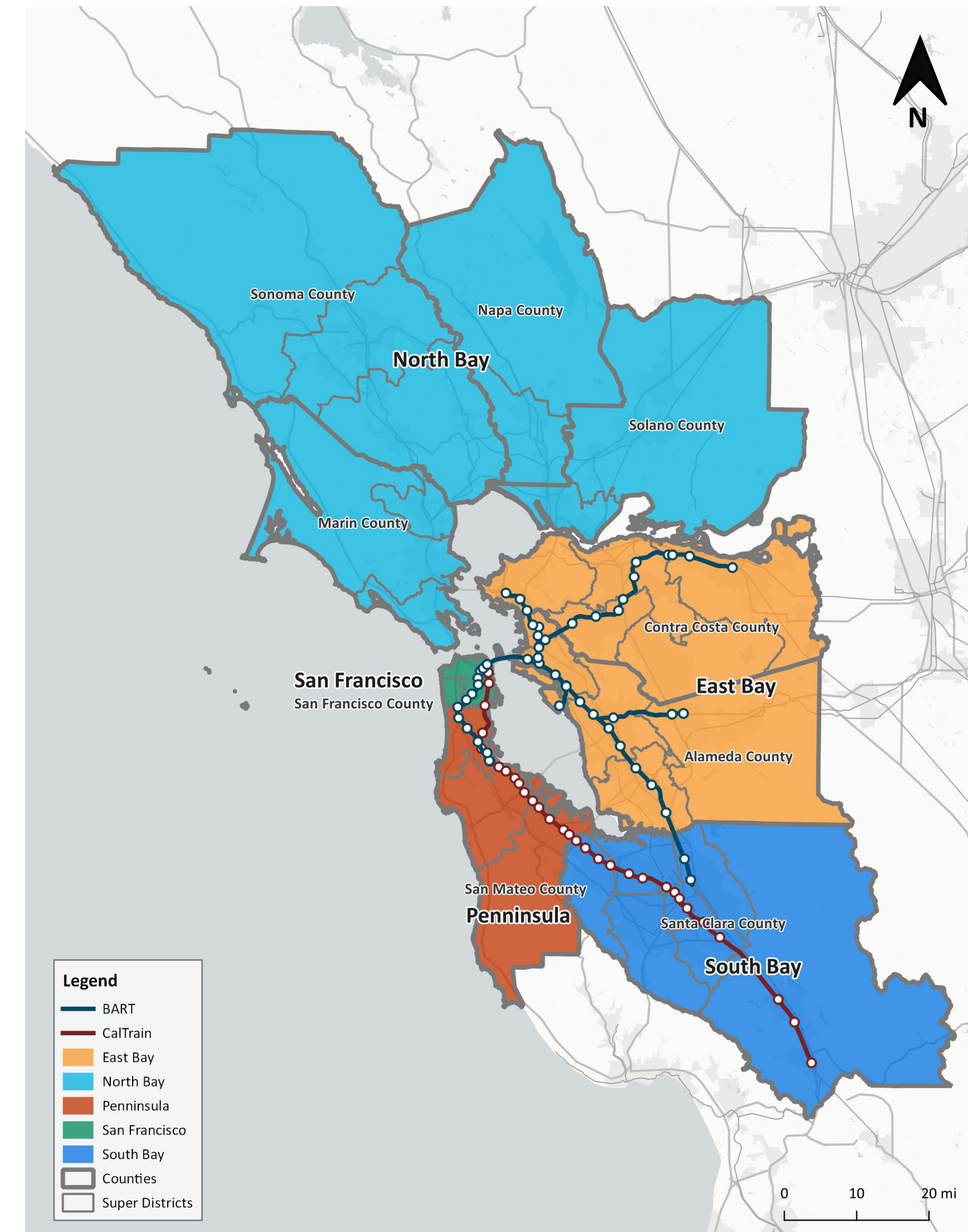
Of all the options, Option 4 has the most variants as it could apply a different level of discount between all agencies. The aim of this option is to standardize and optimize fares where possible to maximize study outcomes.

One illustrative version of Option 4 could:



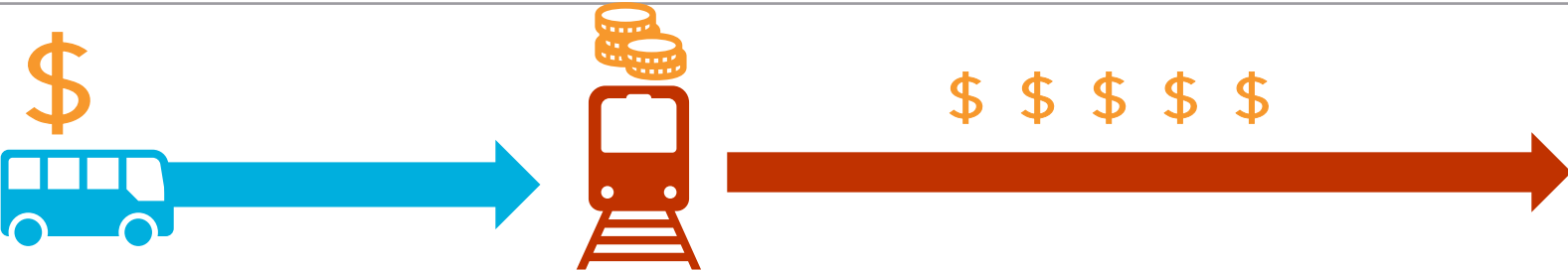


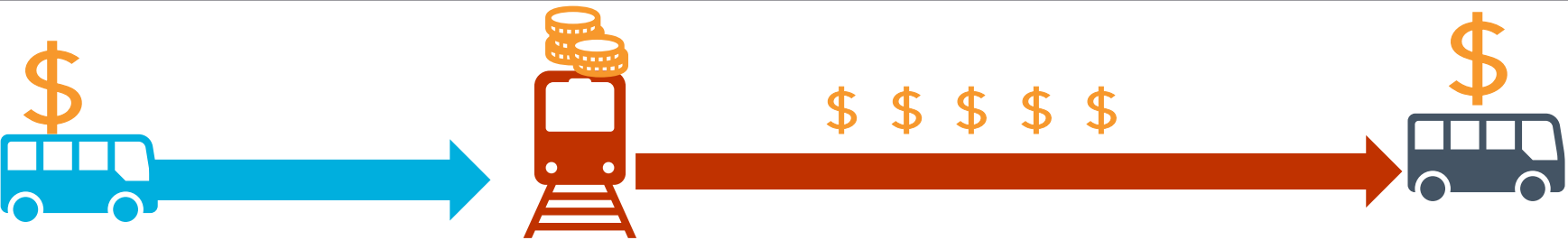
- Have discounted or free transfers between all bus operators in a sub-region – example all North Bay Operators have a free transfer
- Have discounted or free transfers between neighboring agencies across regions (example: VTA to AC Transit)
- Have discounted or free transfers between BART and all connecting agencies
- Harmonize fare rules for ferry, BART, and Caltrain

Level of discount could vary between sub-region and neighboring agency pairs. For example:


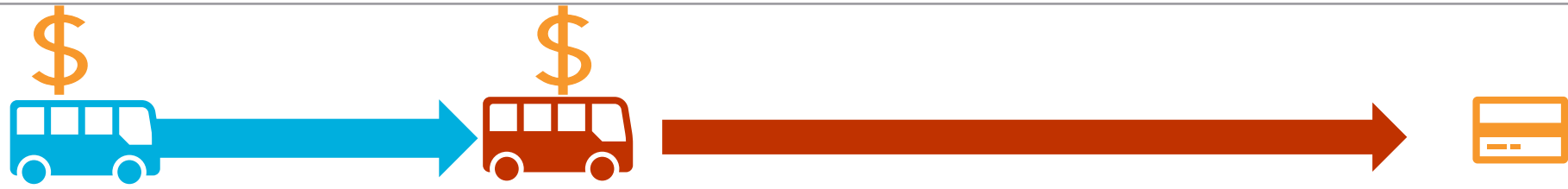




- Different agencies within a subregion could have different discounts (example: Marin Transit to Petaluma Transit may not be the same as Sonoma Transit to CityBus)
- Different subregion pairs could have different discount (North Bay to East Bay could be different than Peninsula to South Bay)



Option 5: Discounted Double Fares

Local bus trips on one operator		Single operator fare
Transfer trips between local bus operators		Second fare could be discounted or free if the operators have an agreement
Transfer trip from bus to rail		Feeder fare could be discounted or free if the operators have an agreement
Transfer trip from rail to rail		Second fare could be discounted or free if the operators have an agreement
Transfer trip from bus to ferry		Feeder fare could be discounted or free if the operators have an agreement
Two-transfer trip from bus to Rail to bus		Bus fares could be discounted or free if the operators have an agreement

Option 6: Passes and Caps

Local bus trips on one operator		Single operator fare
Transfer trips between local bus operators		Double Fare unless regional cap/pass is used
Transfer trip from bus to rail		Double Fare unless regional cap/pass is used
Transfer trip from rail to rail		Double Fare unless regional cap/pass is used
Transfer trip from bus to ferry		Double Fare unless regional cap/pass is used
Two-transfer trip from bus to Rail to bus		Triple Fare unless regional cap/pass is used

Screening Criteria: 1. Customer Value

Customer Value – Current fare policies can lead to a disconnect between the fare charged and the value a customer places on their trip. This manifests in terms of double fares for multi-agency trips, arbitrary fare increases for regional trips, and arbitrary differences in fares for similar trips on a regional scale.

Positive performance focuses on how well the inherent characteristics of the structure address these issues, while **negative performance** focuses on the extent to which the structure creates or moves barriers due to inherent structure characteristics.

Positive Performance

- +1** The structure is likely to benefit some inter-agency or regional trips but not all key agency pairs will not be integrated.
- +2** The structure is likely to benefit the majority of inter-agency or regional trips, however some key agency pairs may not be integrated.
- +3** The structure is likely to reduce double fares for most multi-agency trips and limits arbitrary fare increases for most 'regional' trips.

Negative Performance

- 1** The structure is likely to create new structural fare barriers or arbitrary fare increases in specific locations– including for local trips - that require active mitigation through rules/policies.
- 2** The structure is likely to create significant new fare barriers that will be challenging to mitigate, or the mitigation may require significant modification to the fare structure.
- 3 Fatal Flaw**
The fare structure will create more barriers than it addressed and will not reflect customer value.

Screening Criteria: 2. Customer Experience

Payment Experience – Current fare products, passes, payment technologies, and payment experiences may not be easy to understand and use. This manifests when a trip cannot be made on existing passes or products or where a customer must interact with multiple structures and rules on multi-agency or regional trips.

Positive performance focuses on how well the inherent characteristics of the structure will allow customers using multi-agency trips to benefit from a ‘single structure’, while **negative performance** focuses on the extent to which the structure may make the experience more confusing for travelers in the region.

Positive Performance

- +1** The structure will provide a ‘single experience’ for some agency combinations, but some customers will still interact with multiple rules.
- +2** The structure is likely to lead to the majority of inter-agency trips having a consistent experience, but some agency pairs may not be included.
- +3** The structure is likely to ensure that most customers using multiple agencies will only interact with one fare structure across their trip.

Negative Performance

- 1** The structure is likely to make some local trips more complicated, and will require active mitigation through rules/policies.
- 2** The structure is likely to significantly impact the customer experience for local trips and it may be difficult to mitigate these challenges.
- 3 Fatal Flaw** - the structure will create a more complex or onerous fare structure than today with significant mitigation challenges.

Screening Criteria: 3. Equity

Payment Experience – Current fares may not consistently meet the needs of vulnerable populations. This means that the structure may either make transit more onerous (such as incentivizing use of slower or less frequent services when a quick one is available) or may discourage transit use for vulnerable populations completely, contributing to regional equity issues and reducing opportunity.

Positive performance focuses on how well the inherent characteristics of the structure will address the existing structure's equity issues, while **negative performance** focuses on the extent to which the structure may make negatively impact vulnerable populations.

Positive Performance

- +1 The structure is likely to expand vulnerable population mode choice for some, but not all trips where a multi-agency trips is preferable
- +2 The structure is likely to expand vulnerable population mode choice for the majority of trips where a multi-agency trips is preferable
- +3 The structure is likely to expand vulnerable population mode choice for most trips where a multi-agency trips is preferable

Negative Performance (-1 for each of the impacts the structure may create)

- 1 The structure may lead to arbitrary fare increases for vulnerable populations using primarily one agency.
- 1 The structure may be challenging to use for those without Clipper or those who are unbanked.
- 1 It will be challenging to adapt a Clipper Start or other means based programs to the structure

Screening Criteria: 4. Future Transit

Future Transit - Current fares may not optimize the ridership and benefits of proposed transportation investments. This means that the current fare structure may constrain ridership and revenue, or lead to unintended negative impacts (such as over crowding when other services are available).

Positive performance focuses on how well the inherent characteristics of the structure will allow customers to make use of new investment without double-fare barriers, while **negative performance** is additive across three dimensions outlines below.

Positive Performance

- +1** The structure may reduce double fare barriers for some extensions but other projects will still have a double fare.
- +2** The structure may reduce double fare barriers for most contemplated projects.
- +3** The structure will remove double fare barriers for most contemplated projects and will also be flexible to adapt to future projects or emerging plans.

Negative Performance (-1 for each of the impacts the structure may create)

- 1** The structure may add an arbitrary fare increase for some or all trips using a new project.
- 1** The structure may incentivize over crowding beyond planned demand or capacity and limit ability of operators to manage demand.
- 1** The structure may make it challenging for operators to generate planned or required revenues to deliver and operate the project.

Screening Criteria: Deliverability: 1-3 scale with fatal flaw

Deliverability – this dimension assesses the potential capital, operating, and change management processes required to deliver the structure at a high-level assuming the governance requirements for the pathway are already in place.

Performance assessment focuses on the high-level changes that may be required to deliver the option; **negative performance** focuses a single fatal flaw (the option cannot be delivered with Clipper 2.0).

Performance

+1 The structure will require significant changes to Clipper 2.0 and fleet and/or stations that may be challenging to deliver.

+2 The structure can be delivered with Clipper 2.0 but may require some major changes.

+3 The structure can be delivered with Clipper 2.0 with few or minor changes.

Fatal Flaw

-3 **Fatal Flaw** - the structure cannot be delivered on Clipper 2.0 without fundamental changes to ticketing.

Note – this criteria does not consider the delivery requirements to establish each pathway's governance model because the ranking is conducted 'within' each pathway.

Option	Description	Variants	Differentiation by Distance	Differentiation by Mode	Transfer Rules
A1. Honeycomb Zones (Seamless proposal)	Region is divided into 'cells' (polygonal zones)	<ul style="list-style-type: none">“second zone is free”All modes have same zone fare (Seamless proposal)Zone fares are mode specificZones only apply to rapid transit (bus to bus transfers are free)	The fare charged is based on the number of zones travelled	Each mode could have a unique fare or a shared fare	Transfers between agencies and modes are free within a zone
A2 Honeycomb with local flat	Region is divided into 'cells' (polygonal zones) but bus/local is one zone	<ul style="list-style-type: none">“second zone is free”All modes have same zone fare (Seamless proposal)Zone fares are mode specificZones only apply to rapid transit (bus to bus transfers are free)	The fare charged is based on the number of zones travelled	Each mode could have a unique fare or a shared fare	Transfers between agencies and modes are free within a zone
A3. Circular Zones (TfL Style Zones)	Region is divided into circular zones, which originate on downtown San Francisco	<ul style="list-style-type: none">“second zone is free”All modes have same zone fareZone fares are mode specificZones only apply to rapid transit (bus to bus transfers are free)	The fare charged is based on the number of zones travelled	Each mode could have a unique fare or a shared fare	Transfers between agencies and modes are free within a zone
A4. Fare by Distance	Fares are set based on how far a customer travels on transit	<ul style="list-style-type: none">Initial flat fare (example: x miles has as fixed price)Different distances pricing by service typeSteps or slopes	Fares are based on distance travelled	All modes use fare by distance, but the cost per mile and initial flat fare may be different based on service used	No transfer fee – fares are cumulative based on the total distance travelled on all modes
A5. Fare by Distance with local flat fare	Fares are set based on how far a customer travels on transit, but local services are flat	<ul style="list-style-type: none">Initial flat fare (example: x miles has as fixed price)Different distances pricing by service typeSteps or slopes	Fares are based on distance travelled, except for local service, which is flat	All modes use fare by distance, but the cost per mile and initial flat fare may be different based on service used All local operators have a flat fare	When transferring between local and other services the local fare receives a 100% discount, fares are based on cumulative distance travelled on all modes using fare by distance
A6. Regional Cap or pass	No changes to fare structure, but all agencies must follow a single cap or monthly pass	<ul style="list-style-type: none">Cap solution (example – a customer only ever pays for xx trips per month/week)Pass solution (example – a customer can buy unlimited travel for the region, or parts of the region for \$yyy for a month or week)Employer incentive?Institutional programs?	Based on status quo	Based on status quo	Based on status quo
A7. Flat Fare	A single flat fare for all trips in the region	<ul style="list-style-type: none">Different prices of flat fare	<ul style="list-style-type: none">No differentiation	No differentiation	<ul style="list-style-type: none">All transfers are free
A8. Coordination and harmonization	Fares are harmonized between modes, but transfer fees between modes still apply	<ul style="list-style-type: none">Level of discount on transferPrice for each mode	<ul style="list-style-type: none">All higher order modes use same fare structure (example FBD)All bus fares are same in reason	Based on status quo	Based on status quo, however some transfers could be free

Key Criteria for Options in this Scenario

1.

All trips within the same mode or service type must use the same fare structure and have the same pricing

2.

The fare structure must span the entire region and cover all agencies

Example A1 – all operators have the same fare structure based on the cost of a zone

Note – it is assumed that passes would be built into all options, not just A6.

The Great Alliance



Option	Description	Variants	Differentiation by Distance	Differentiation by Mode	Transfers
B1. Honeycomb Zones	Region is divided into 'cells' (polygonal zones)	<ul style="list-style-type: none">“second zone is free”All modes have same zone fareZone fares are mode specificZones only apply to rapid transit (bus to bus transfers are free)	The fare charged is based on the number of zones travelled, however pricing is not uniform – this means that the price of ‘x zones’ could vary based on the zones travelled through	Each mode could have a unique fare or a shared fare	Transfers between agencies and modes are free within a zone
B2. Honeycomb zones, local flat fare	Region is divided into 'cells' (polygonal zones) but bus/local is one zone	<ul style="list-style-type: none">“second zone is free”All modes have same zone fare (Seamless proposal)Zone fares are mode specificZones only apply to rapid transit (bus to bus transfers are free)	The fare charged is based on the number of zones travelled	Each mode could have a unique fare or a shared fare	Transfers between agencies and modes are free within a zone
B3. Circular Zones (TfL Style Zones)	Region is divided into circular zones, which originate on downtown San Francisco	<ul style="list-style-type: none">“second zone is free”All modes have same zone fareZone fares are mode specificZones only apply to rapid transit (bus to bus transfers are free)	The fare charged is based on the number of zones travelled, however pricing is not uniform – this means that each agency could set it's own zone price	Each mode could have a unique fare or a shared fare	Transfers between agencies and modes are free within a zone
B4. Fare by Distance	Fares are set based on how far a customer travels on transit – transfers between agencies and modes are free	<ul style="list-style-type: none">Initial flat fare (example: x miles has as fixed price)Different distances pricing by service typeSteps or slopes	Fares are based on distance travelled, each agency could set own distance rate and initial flat fare	All operators can opt in to fare by distance and the cost per mile and initial flat fare may be different based on service used	No transfer fee – fares are cumulative based on the total distance travelled on all modes
B5. Fare by Distance with local flat fare	Fares are set based on how far a customer travels on transit, but local services are flat – transfers between agencies and modes are free	<ul style="list-style-type: none">Initial flat fare (example: x miles has as fixed price)Different distances pricing by service typeSteps or slopes	Fares are based on distance travelled, each agency could set own distance rate and initial flat fare	<p>All modes use fare by distance, but the cost per mile and initial flat fare may be different based on service used</p> <p>All local operators retain their existing flat fares and can opt into fare by distance</p>	When transferring between local and other services the local fare receives a 100% discount, fares are based on cumulative distance travelled on all modes using fare by distance
B6. Regional Cap or pass	No changes to fare structure, but all agencies must follow a single cap or monthly pass	<ul style="list-style-type: none">Cap solution (example – a customer only ever pays for xx trips per month/week)Pass solution (example – a customer can buy unlimited travel for the region, or parts of the region for \$yyy for a month or week)	Based on status quo	Based on status quo	Based on status quo

Key Criteria for Options in this Scenario

1. The option must apply a single structure across the region that all agencies must follow
2. Pricing decisions are made at the agency level

Meaning there is a general fare structure, but no region wide approach to pricing – example B1 – all agencies share a zone structure, but prices for each zone are at the discretion of the operators serving it

Note – it is assumed that passes would be built into all options, not just B5.

Multiple Tents, One Camp Site

Option	Description	Variants	Differentiation by Distance	Differentiation by Mode	Transfers
C1. Corridor Integration with Fare by Distance	Region is divided into key corridors, each with its own integration solution: <ul style="list-style-type: none"> Setting fares for rapid and regional transit (called corridor services) using fare by distance Reducing or removing 'local fares' when using a bus to connect to a corridor service 	<ul style="list-style-type: none"> Number of corridors Level of discounts for transfers between agencies (example: free or discounted) transfers for select agency pairs) Initial flat fare for corridor service (example: x miles has as fixed price) Different distances pricing by service type Steps or slopes 	Corridor services (rapid and regional transit) used to travel longer distances would use fare by distance	<ul style="list-style-type: none"> All services along a corridor have a rationalized fare structure (example: all long distance rail or ferry would use a similar structure and price) but could have unique pricing to shift demand In the case of BART, fares would be set based on corridor and 'network' 	<ul style="list-style-type: none"> Discounted or free between local and regional and rapid transit along a corridor (example: a trip using SamTrans, Bart, and Muni would pay a simplified 'local+corridor service' fare)
C2. Neighboring and connecting Agency Integration	A discount is applied to trips on neighboring agencies (example: a common discount between BART and all local services)	<ul style="list-style-type: none"> Level of discount (50%, 75%, 100%) between neighbors Level of discount between connecting agencies Connecting only vs. neighboring only vs. both 	Use existing structures (BART by distance, Caltrain by zone, etc)	Use existing structures	Transfers applied between select agencies
C3. C1 and C2 Combination	Integration solutions are provided along key corridors (standardizing fares for corridor services) but also between all neighboring and connecting agencies	<ul style="list-style-type: none"> Level of discount (50%, 75%, 100%) See C1 	See C1	See C1	See C2
C4. Caps and Passes only	Caps or passes would be developed on a corridor level or between neighboring agencies	<ul style="list-style-type: none"> Cap solution (example – a customer only ever pays for xx trips per month/week on a corridor, need an add fare for other corridors) Pass solution (example – a customer can buy unlimited travel for a corridor for \$yyy for a month or week, would need an add fare for other corridors) 	Use existing structures (BART by distance, Caltrain by zone, etc)	Use existing structures	No new transfer discounts

Key Criteria for Options in this Scenario

- Prices are set centrally but the level of change at an individual agency level is minimized**
- Options do not include a single regional structure and focus**

For example – C1 could have a corridor from San Mateo to San Francisco. Caltrain and Bart would both be deemed as 'corridor' services and would use fare by distance. There would be a set approach for trips using one or more local services with one or more 'corridor' services.

Note – it is assumed that passes would be built into all options, not just C4.

Trade Agreements

Option	Description	Variants	Differentiation by Distance	Differentiation by Mode	Transfer Rules
D1. Discounted Double Fares	Discounted double fares are provided between key operators	<ul style="list-style-type: none">Level of discount (50%, 75%, 100%)Number of agencies offering discounted double fares	Use existing structures (BART by distance, Caltrain by zone, etc)	Use existing structures	Transfers between local and regional or rapid transit services are discounted – however this would only apply to agencies within the agreement
D2. Caps and Passes Only	Fare structure remains unchanged, but caps are set up between select agencies	<ul style="list-style-type: none">Caps (example: a customer only pays for xx trips per week total between Muni and Bart)Passes (example: a customer can buy a pass for two or more agencies for \$yy)	Use existing structures (BART by distance, Caltrain by zone, etc)	Use existing structures	No new transfer discounts
D3. Pricing Harmonization Between Neighboring Agencies	Fare structure remains unchanged, but agencies may collaborate on having the same fares or mutual fare acceptance on a case by case basis.	<ul style="list-style-type: none">Agencies included in harmonization approachLevel of discount provided	Use existing structures (BART by distance, Caltrain by zone, etc)	Use existing structures	No new transfer discounts

Key Requirements for Options

1. Options must be realistic changes that agencies would make on a bilateral or multi lateral level

2. Operators retain authority over their pricing

For example – D1 - in a potential variant of D1 there is only an agreement between Sam Trans and Bart. A trip using SamTrans, BART, and Muni may get a discount from SamTrans but if Muni is not part of the arrangement there would be no Muni discount.

Option	Customer Value	Customer Experience	Equity	Future Transit	Deliverability	Total
A1. Honeycomb Zones	+3: removes all double fares -1: may create new fare barriers if agency service areas are divided by fare barriers, may create arbitrary fare increases for short trips on regional transit Total: +2	+3: all customers across all trips have one experience -1: local trips may require a more complex experience (example: trips on one operator are now multi zone when they used to be single) Total: +2	+3: removes all double fare barriers and could encourage use of best service combination -1: may lead to fare increases for single agency trips (such as agencies who serve a majority of low income passengers that are divided into zones) Total: +2	+3: removes double fares for feeder service and cross-boundary routes -2: may lead to arbitrary fare increases on some new lines (example: zone division may impact short distance trips) and may require significant changes (redrawing zones) as the network expands Total: +1	3: can likely be delivered on Clipper 2.0 with minimal challenges -1: requires tap off on local buses, which adds complexity compared to today's structure Total: +2	9
A.2 Honeycomb with local flat	+3: removes all double fares -1: may create arbitrary fare increases for short trips on regional transit Total: +2	+3: all customers across all trips have one experience	+3: removes all double fare barriers and could encourage use of best service combination -1: may lead to fare increases for single agency trips (such as agencies who serve a majority of low income passengers) Total: +2	+3: removes double fares for feeder service and cross-boundary routes -2: may lead to arbitrary fare increases on some new lines (example: zone division may impact short distance trips) and may require significant changes (redrawing zones) as the network expands Total: +1	+3: can likely be delivered on Clipper 2.0 with minimal challenges	11
A3. Circular Zones (TfL Style Zones)	+3: removes all double fares -3 (fatal flaw): the structure creates new fare barriers across the region that increase cost of local travel and lead to arbitrary fare increases Total: Fatal Flaw	+3: all customers across all trips have one experience -1: local trips may require a more complex experience (example: trips on one operator are now multi zone when they used to be single) Total: +2	+3: removes all double fare barriers and could encourage use of best service combination -1: may lead to fare increases for single agency trips (such as agencies who serve a majority of low income passengers) Total: +2	+3: removes double fares for feeder service and cross-boundary routes -3 (fatal flaw): likely to lead to unintended and arbitrary fare increases across most new projects Total: Fatal Flaw	+3: can be delivered on Clipper 2.0 -1: requires tap off on local buses, which adds complexity compared to today's structure Total +1	Fatal Flaw
A4. Fare by Distance	+3: removes all double fares -1: creates new fare barriers for local transit (some fare may be significantly higher) Total: +2	+3: all customers across all trips have one experience -1: local trips are more complex (metred, when they used to be flat) Total: +2	+3: removes all double fare barriers and could encourage use of best service combination -2: may lead to fare increases for single agency trips (such as agencies who serve a majority of low income passengers) and may be challenging for non-clipper and unbanked users Total: +1	+3: removes double fares for feeder service and cross-boundary routes -1: may lead to fare increases on some new lines Total: +2	+3: can be delivered on Clipper 2.0 -2: requires tap off on local buses with measured distance, which adds complexity compared to today's structure Total +1	8
A5. Fare by Distance with local flat fare	+3: removes all double fares	+3: all customers across all trips have one experience	+3: removes all double fare barriers and could encourage use of best service combination -1: may lead to fare increases for single agency trips (such as agencies who serve a majority of low income passengers) Total: +2	+3: removes double fares for feeder service and cross-boundary routes -1: may lead to fare increases on some new lines Total: +2	3: can likely be delivered on Clipper 2.0 with minimal challenges	13
A6. Regional Cap or pass	+1: removes double fares or fare barriers for some multi agency trips, but is opt in so will not cover all trips	+2: experience improves for all multi-agency trips, but experience is opt-in so will not cover all trips	1: new multi agency passes may enhance multi modal access	+2: removes double fares for feeder service and cross-boundary routes, but is opt in so will not cover all trips	3: can likely be delivered on Clipper 2.0 with minimal challenges	9
A7. Flat Fare	+3: removes all double fares	+3: all trips across the region use one structure	+3: removes all double fare barriers and could encourage use of best service combination -1: may lead to fare increases for single agency trips (such as agencies who serve a majority of low income passengers) Total: +2	+3: removes double fares for feeder service and cross-boundary routes -3: may make demand management / crowding management more challenging, may impact ability to generate planned or required revenues Total :Fatal Flaw	3: can likely be delivered on Clipper 2.0 with minimal challenges	Fatal Flaw
A8. Harmonization	0: unlikely to improve customer value Fatal Flaw	1: fares are more consistent and easier to understand, but the experience will still vary between modes	-1: may lead to fare increases for single agency trips (such as agencies who serve a majority of low income passengers) Total: fatal flaw	0: unlikely to impact future transit	3: can likely be delivered on Clipper 2.0 with minimal challenges	Fatal Flaw

The Great Alliance



Option	Customer Value	Customer Experience	Equity	Future Transit	Deliverability	Total
B1. Honeycomb Zones	+3: removes all double fares and allows agencies to set fares for trips within their service area -1: may create arbitrary fare increases for short trips on regional transit Total: +2	+3: all customers across all trips have one experience, operators can choose to not have their service area be divided into multiple zones Total: +3	+3: removes all double fare barriers and could encourage use of best service combination -1: may lead to fare increases for single agency trips (such as agencies who serve a majority of low income passengers that are divided into zones) Total: +2	+3: removes double fares for feeder service and cross-boundary routes -2: may lead to arbitrary fare increases on some new lines (example: zone division may impact short distance trips) and may require significant changes (redrawing zones) as the network expands Total: +1	3: can likely be delivered on Clipper 2.0 with minimal challenges -1: requires tap off on local buses, which adds complexity compared to today's structure Total :+2	10
B2. Honeycomb zones, local flat fare	+3: removes all double fares and allows agencies to set fares for trips within their service area -1: may create arbitrary fare increases for short trips on regional transit Total: +2	+3: all customers across all trips have one experience	+3: removes all double fare barriers and could encourage use of best service combination Total: +3	+3: removes double fares for feeder service and cross-boundary routes -2: may lead to arbitrary fare increases on some new lines (example: zone division may impact short distance trips) and may require significant changes (redrawing zones) as the network expands Total: 1	+3: can likely be delivered on Clipper 2.0 with minimal challenges	12
B3. Circular Zones (TfL Style Zones)	+3: removes all double fares -3 (fatal flaw): the structure creates new fare barriers across the region that increase cost of local travel and lead to arbitrary fare increases Total: Fatal Flaw	+3: all customers across all trips have one experience -1: local trips may require a more complex experience (example: trips on one operator are now multi zone when they used to be single) Total: +2	+3: removes all double fare barriers and could encourage use of best service combination -1: may lead to fare increases for single agency trips (such as agencies who serve a majority of low income passengers) Total: +2	+3: removes double fares for feeder service and cross-boundary routes -1: may lead to fare increases on some new lines Total: +2	+3: can be delivered on Clipper 2.0 -1: requires tap off on local buses, which adds complexity compared to today's structure	Fatal Flaw
B4. Fare by Distance	+3: removes all double fares -1: creates new fare barriers for local transit (some fare may be significantly higher) Total: +2	+3: all customers across all trips have one experience -1: local trips are more complex (metred, when they used to be flat) Total: +2	+3: removes all double fare barriers and could encourage use of best service combination -2: may lead to fare increases for single agency trips (such as agencies who serve a majority of low income passengers) and may be challenging for non-clipper and unbanked users Total: +1	+3: removes double fares for feeder service and cross-boundary routes -1: may lead to fare increases on some new lines Total: +2	+3: can be delivered on Clipper 2.0 -2: requires tap off on local buses with measured distance, which adds complexity compared to today's structure Total +1:	8
B5. Fare by Distance with local flat fare	+3: removes all double fares	+3: all customers across all trips have one experience	+3: removes all double fare barriers and could encourage use of best service combination Total: +3	+3: removes double fares for feeder service and cross-boundary routes -1: may lead to arbitrary fare increases on some new lines Total: 2	3: can likely be delivered on Clipper 2.0 with minimal challenges	14
B6. Regional Cap or pass	+1: removes double fares or fare barriers for some multi agency trips, but is opt in so will not cover all trips	+2: experience improves for all multi-agency trips, but experience is opt-in so will not cover all trips	1: new multi agency passes may enhance multi modal access	+2: removes double fares for feeder service and cross-boundary routes, but is opt in so will not cover all trips	3: can likely be delivered on Clipper 2.0 with minimal challenges	9

Multiple Tents, One Camp Site



Option	Customer Value	Customer Experience	Equity	Future Transit	Deliverability	Total
C1. Corridor Integration with Fare by Distance	+2: removes some double fares for most agency pairs -1: may create arbitrary fare increases for some corridors compared to today (example: one BART corridor increases in price) Total: +1	+2: the majority of interagency trips will have a consistent experience along corridors, however some trips between neighboring agencies may not be integrated	+1: may expand vulnerable population mode choice -2: The structure may lead to fare increases for vulnerable populations along corridors (example: a corridor is priced for an ‘average traveler’ and the price increases significantly) and may be challenging to deliver a corridor focused means based program Total: Fatal flaw	+3: removes double fares for feeder service and cross-boundary routes -1: may lead to unplanned fare increases on some new lines based on corridor pricing strategy Total: +2	3: can likely be delivered on Clipper 2.0 with minimal challenges -1: requires tap off on local buses, which adds complexity compared to today’s structure Total :+2	Fatal Flaw
C2. Neighboring and connecting Agency Integration	+3: removes double fares for most multi-agency trips with a level of discount and pricing integration appropriate to the agencies included and trips being taken (note the level of pricing may vary between agency pairs, but all pairs will be discounted)	+2: the majority of customers using multiple transit operators are likely to have an integrated experience, although the experience may vary across the region	+2: removes all double fare barriers and could encourage use of best service combination for the majority of trips	+3: removes double fares for feeder service and cross-boundary routes	+3: can likely be delivered on Clipper 2.0 with minimal challenges	13
C3. C1 and C2 Combination	+3: removes all double fares for most multi-agency trips with a level of discount and pricing integration appropriate to the agencies included and trips being taken -1:may create arbitrary fare increases for some corridors compared to today (example: one BART corridor increases in price) Total: 2	+1: Improves experience for customers using neighboring agencies and for those using services along a corridor but may lead to a more fragmented overall structure (example: service A + B along a corridor uses on structure, but service B+C as neighboring agencies may use another structure, which may impact regular agency B users)	+1: may expand vulnerable population mode choice -2: The structure may lead to fare increases for vulnerable populations along corridors (example: a corridor is priced for an ‘average traveler’ and the price increases significantly) and may be challenging to deliver a corridor focused means based program Total: Fatal flaw	+3: removes double fares for feeder service and cross-boundary routes -1: may lead to unplanned fare increases on some new lines based on corridor pricing strategy Total: +2	+3: can be delivered on Clipper 2.0	Fatal Flaw
C4. Caps and Passes only	+1: removes double fares or fare barriers for some multi agency trips, but is opt in so will not cover all trips	+2: experience improves for all multi-agency trips, but experience is opt-in so will not cover all trips	+1: new multi agency passes may enhance multi modal access	+2: removes double fares for feeder service and cross-boundary routes, but is opt in so will not cover all trips	3: can likely be delivered on Clipper 2.0 with minimal challenges	9

Trade Agreements

Option	Customer Value	Customer Experience	Equity	Future Transit	Deliverability	Total
D1. Discounted Double Fares	+2: removes some double fares for most agency pairs	+1: provides a standard experience for select agency pairs	+1: may expand vulnerable population mode choice	+2: removes double fares for feeder service and cross-boundary routes	3: can likely be delivered on Clipper 2.0 with minimal challenges	9
D2. Caps and Passes Only	+1: removes double fares or fare barriers for some multi agency trips, but is opt in so will not cover all trips	+2: experience improves for all multi-agency trips, but experience is opt-in so will not cover all trips	+1: new multi agency passes may enhance multi modal access	+2: removes double fares for feeder service and cross-boundary routes, but is opt in so will not cover all trips	3: can likely be delivered on Clipper 2.0 with minimal challenges	9
D3. Pricing Harmonization Between Neighboring Agencies	0: unlikely to improve customer value Fatal Flaw	1: fares are more consistent and easier to understand, but the experience will still vary between modes	-1: may lead to fare increases for single agency trips (such as agencies who serve a majority of low income passengers) Total: fatal flaw	0: unlikely to impact future transit	3: can likely be delivered on Clipper 2.0 with minimal challenges	Fatal Flaw