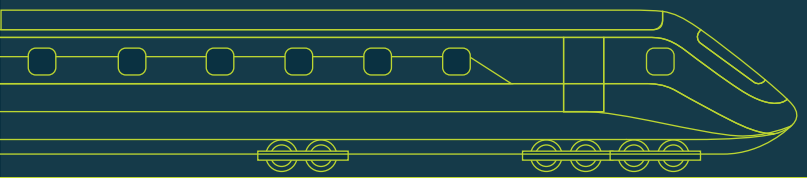
Bay Area Rail Partnership

Summary Report



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1. INTRODUCTION

This report is V2.0 of the MTC Rail Partnership Study Summary Report. It was developed based on MTC feedback on V1.0.
It is a draft and confidential document intended soley for sharing with members of the TAC.
This report is funded by Caltrans.

The introduction chapter provides an overview of the study and structure of the report. It is intended to aid readers in understanding the goals and limitations of the study and where in the report they can access key information.

1.1 Overview

This report is the Executive Study for the Metropolitan Transportation Commission (MTC) launched the Rail Partnership Study. It provides a summary of the key findings of the study and is a companion report to two additional reports:

- **MTC Rail Partnership Study Report 1: Background** – a summary of existing conditions with respect to rail decision making, organizations, and delivery models.
- **MTC Rail Partnership Study Report 2: Findings** – a detailed review of potential changes to decision making, organizational structures, and delivery models in the Bay Area.

This document is a self-contained summary of the study and may be used independent or alongside the more-detailed reports 1 and 2.

DOCUMENT STRUCTURE

The remainder of this chapter provides includes:

- Study Background
- Study Approach
- Core Concept: Regionalization
- Role of Study

The remainder of the report is divided into four additional chapters:

- **Chapter 2 -** Decision Making
- **Chapter 3 -** Organization
- **Chapter 4 -** Delivery Models
- **Chapter 5 -** Next Steps

1.2 Study Background

How can rail services be developed and operated across the region to best meet the needs of travelers? How should decisions be made for selecting future rail projects and service changes? How should organizations be involved in planning and delivering projects and providing service? What decisions and activities should be considered 'regionalized' and which ones are best kept at a 'local' level?

These are just some of the questions that motivated the MTC Rail Partnerships Study.

STUDY PURPOSE

The study was launched in late 2021 to build on previous analysis and explore short term and longer-term opportunities and challenges related to 'increased regionalization' in the Bay Area passenger rail system. The purpose of the study, as defined in by MTC is outlined below:

> "Building on existing local plans and projects, MTC would work to evolve its regional role to ensure customer-focused and fiscally responsible project implementation and to support the advancement of passenger rail service in the Bay Area. This effort would examine processes, organizational structural synergies, and other topics identified by rail agencies and mega rail projects in the region, building off existing organizational assessments and mega projects around the region."

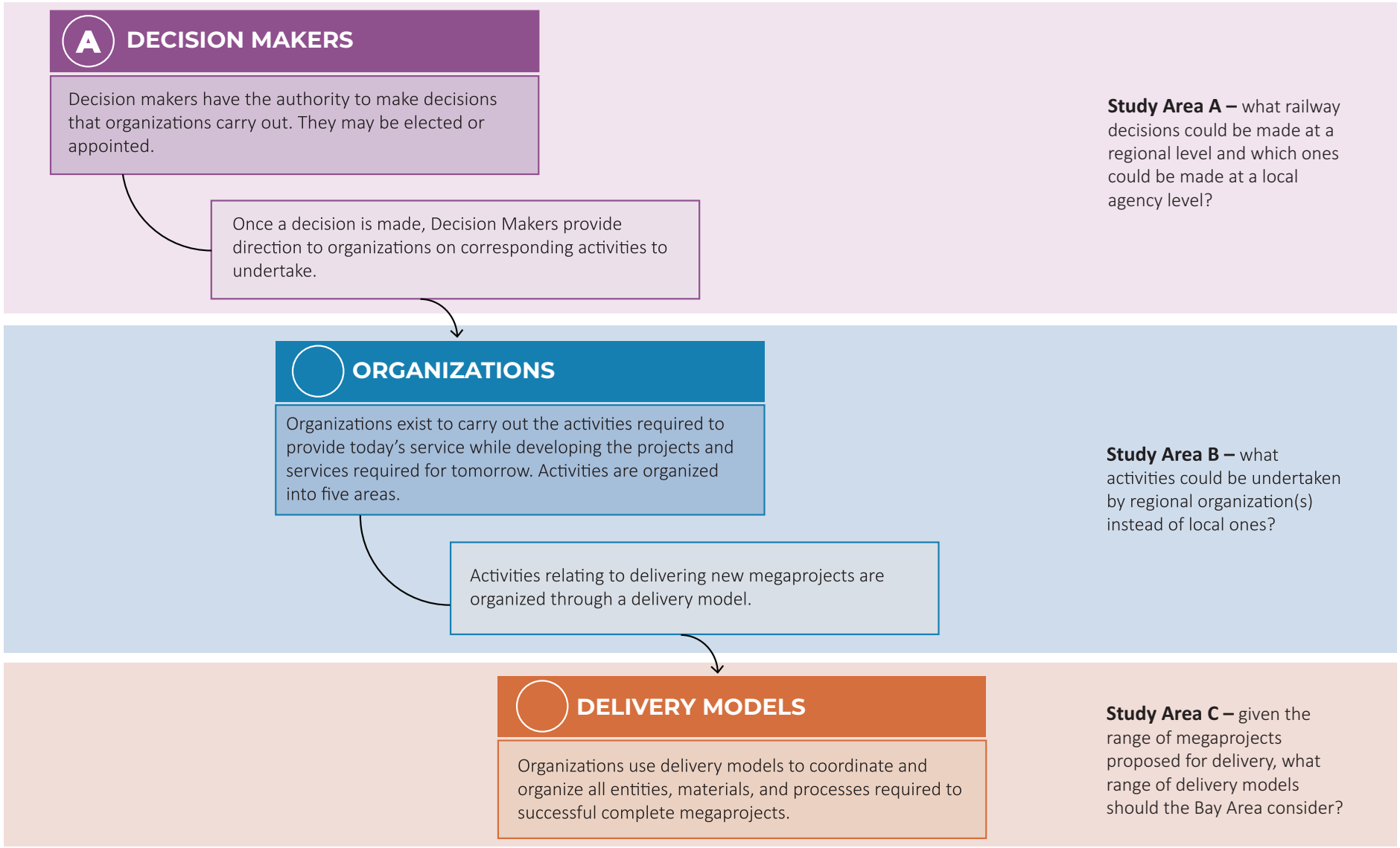
STUDY FOCUS AREAS

Three focus areas were identified during pre-project planning and sharpened in the early stages of the study (see Figure 1.2 in Section 1.3 for more information on how the study was executed). These areas are visualized in Figure 1.1 (on following page), and summarized below in Table 1.1. They organize key questions related to the entirety of the passenger rail system in the Bay Area into clearly delineated – but related – domains: (a) Decision Making, (B) Organizations, and (C) Mega Project Delivery.

Table 1.1: Study Focus Areas and Key Questions

A Making Decisions for the Future of the Rail Network	B Organizing Railway Capabilities in the Bay Area	C Delivering Railway Mega Projects
What rail network decisions could be better made at the region-wide vs agency level? What are the expected benefits and trade-offs of difference scales of decision making?	What types of entities are best placed to enact decisions made at a region-wide level? Which rail capabilities could benefit from alternative organizational models? What are the expected benefits/trade-offs that may arise from different rail models?	What are the capabilities required to deliver the regional portfolio of projects? How could capabilities be distributed to deliver projects? Which models address gaps and challenges and complement the existing condition?
Scope – assessing how decisions are made today for passenger rail network issues and exploring if different approaches to decisions (who makes decisions, how are they made, and which agencies do they apply to) could benefit the region.	**Scope –** assessing the range of capabilities required to conduct day to day 'actions' that support passenger rail in the Bay Area.	**Scope –** assessing mega-projects are delivered. This includes the range of entities involved in successful delivery on the public and private side and potential new ways to deliver the planned portfolio of projects in the Bay Area.

Figure 1.1: Relationship Between Key Study Areas



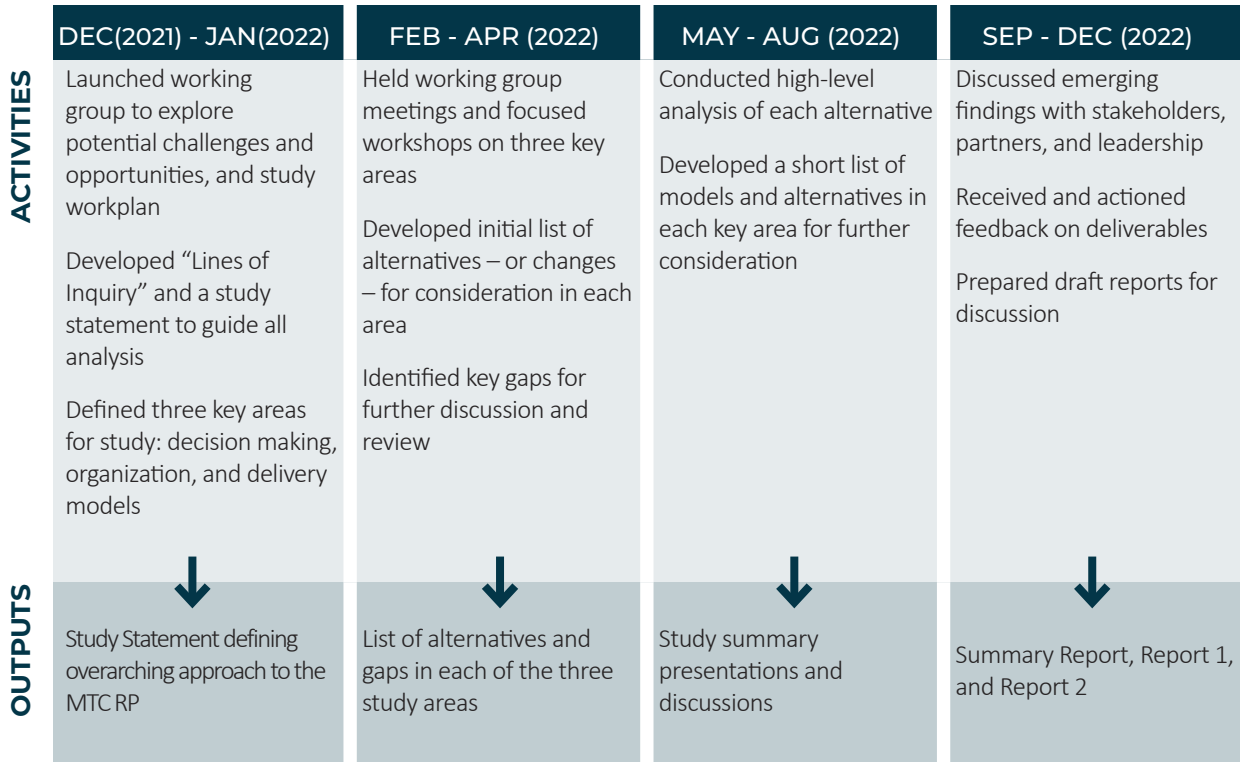
1.3 Study Approach

ANALYSIS APPROACH AND PARTNERSHIPS

The study was conducted from December 2021 to December 2022. It was conducted using a blend of desktop research, working group meetings, interviews with peer jurisdictions, and strategic analysis. Figure 1.1 visualizes the approach used for the study. The study working group included representation from the Bay Area's passenger rail agencies and governments, including:

- ACE
- BART
- Capitol Corridor
- SamTrans
- Caltrain
- SFMTA
- SMART
- Valley Link
- VTA
- Caltrans
- CalSTA
- City of San Jose
- SFCTA
- California Highspeed Rail Authority
- ACTC
- City of Oakland
- City of San Francisco

Figure 1.2: Study Process



STUDY STATEMENT

The study statement (Figure 1.3) provides guidance on how the Rail Partnership Study should analyze potential issues, opportunities, and options related to the 'existing models' used in the region across the three thematic areas, and any new models under consideration. It was developed collaboratively with key stakeholders to provide a shared set of language and ideas that could be applied to all three thematic areas. Specifically:

- The study statement is a solution-agnostic summary of areas of inquiry relevant to the Rail Partnership.
- There are four areas of inquiry informed by a review of existing conditions and engagement with key partners
- These areas of inquiry articulate opportunities to augment benefits of rail and mitigate risks or potential challenges.
- This study reviewed each area of inquiry in each thematic area lens and asked the question: if the existing model changed, how could benefits, disbenefits, and risks be impacted?

All options identified in this study were assessed against the study statement to determine their relative pros and cons compared to existing conditions. This approach is generalized in Figure 1.4. This framework explores how:

- The existing conditions are likely to realize potential benefits and provide opportunities to mitigate potential downsides (risks or disbenefits).
- Changes within any of the thematic areas (A-Decision Making, B-Organization, C-Mega Project Delivery) could realize benefits and mitigate potential downsides or potential expand the downsides.
- Likely a change across the three thematic areas is to generate benefits (low, medium, high) and how likely a change is to either trigger a disbenefit or risk, or mitigate a disbenefit or risk.

AN EXPLORATORY STUDY

The MTC Rail Partnership Study was an 'exploratory study'. It was launched to identify the highest potential areas for further inquiry through parallel and future studies. To do so, it used a blend of desktop research, workshops, expert knowledge, and discussions to develop findings. It was not developed to draft specific recommendations for governance or institutional change in the Bay Area. Such recommendations would require technical analysis above and beyond the exploratory work included in this study.

Figure 1.3: Study Statement

Today, the Bay Area passenger rail system is composed of multiple decision makers and organizations. Historically, a range of delivery models were used to advance mega projects.

While this 'model' has enabled past expansion and successes, it may not be optimized for future growth.

In 2021, the Rail Partnerships study was commenced to explore potential changes to this model. Four lines of inquiry were identified to test and challenge the existing model and potential changes to the model based on their benefits to customers and the system as a whole.

INQUIRY 1 – MAXIMIZING THE BENEFIT OF PROJECTS AND SERVICE

Does the existing model with multiple decision makers, planners, and delivery agencies support optimal projects and sustainable services delivered in the most efficient sequence?

INQUIRY 2 – PROVIDING EXCELLENT CUSTOMER EXPERIENCE IN A TIMELY MANNER

As the network becomes increasingly physically integrated, can the existing model ensure seamless customer experience and project delivery?

INQUIRY 3 – GENERATING VALUE FOR MONEY

As the volume of projects proposed for the Bay Area reaches historic levels, does the existing model enable value for money and effective delivery across the region?

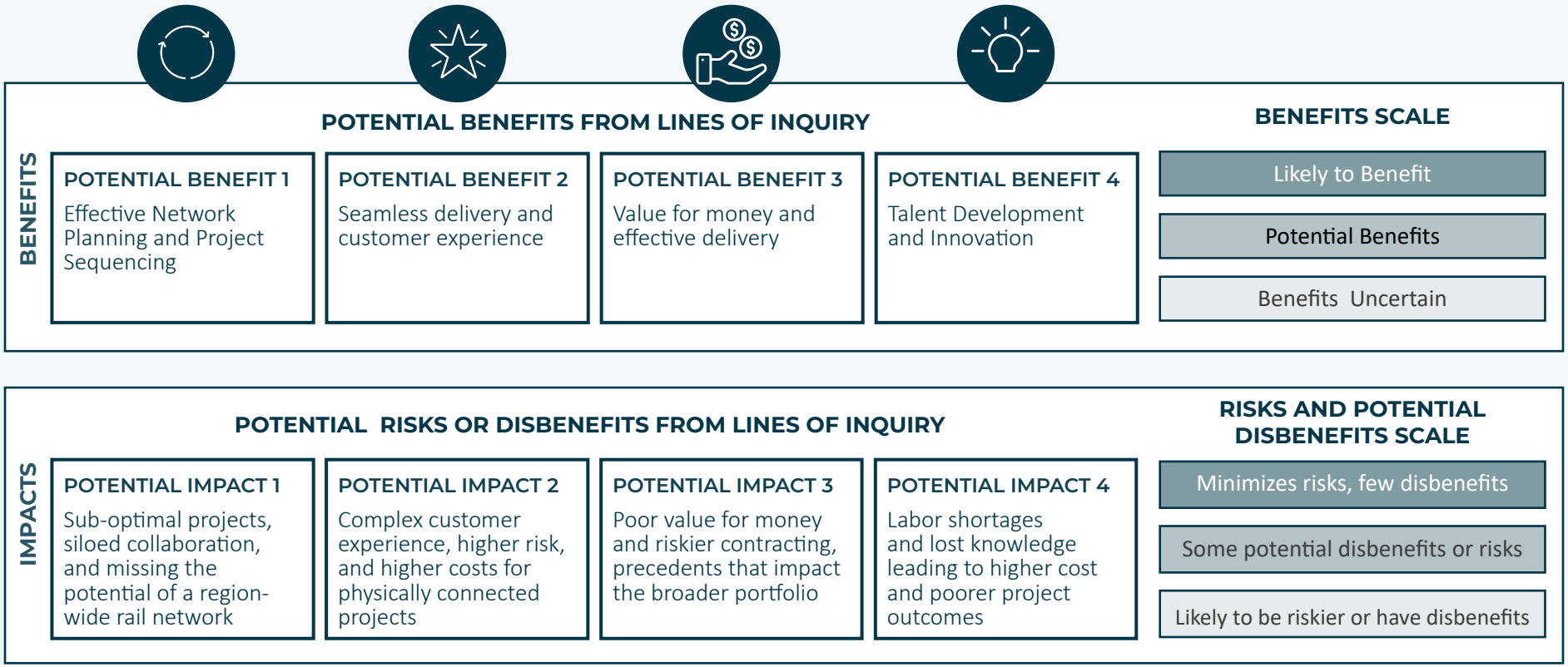
INQUIRY 4 – INNOVATING AND GROWING CAPABILITY

Similar skills and knowledge are required across the range of proposed projects, can the existing model ensure effective use of labor and innovation?

* These inquiries were developed to respond to the unique characteristics of rail – scale of demand, time and cost to deliver new projects, and the range of proposed projects

Figure 1.4: Analytic Framework Used in the MTC Rail Partnership Study

The study used a scaled approach to determine overall potential for a shift from local to regional



1.4 Core Concept: Regionalization

WHAT IS REGIONALIZATION?

Regionalization refers to a redistribution of authority, accountability, or responsibility of roles within the Bay Area passenger rail system at a 'regional level'. These terms are used as follows in this study:

- **Authority (related to theme A – Decision making) –** defines the entities that can make binding decisions for one or more elements of the rail system. For example – an entity that can set budgets or decide which projects get build and who builds them is said to have authority.
- **Accountability –** defines the organizations that are instructed or directed to carry out a decision. The accountable party must carry out – and report back on – decisions make by the entity with authority. For example – a decision maker uses its authority to direct an organization to build a project.
- **Responsibility –** defines who conducts the tasks required to complete a direction. For example, an accountable organization may hire a combination of in-house staff and external contractors to deliver a project.

Accountability and responsibility are related to areas B (organizations) and C (mega-project delivery models) as these areas define which organizations carry out decisions.

Each of these roles (who has authority, who is accountable to act on decisions, who is responsible for day to day work related to a decision) could be localized or regionalized.

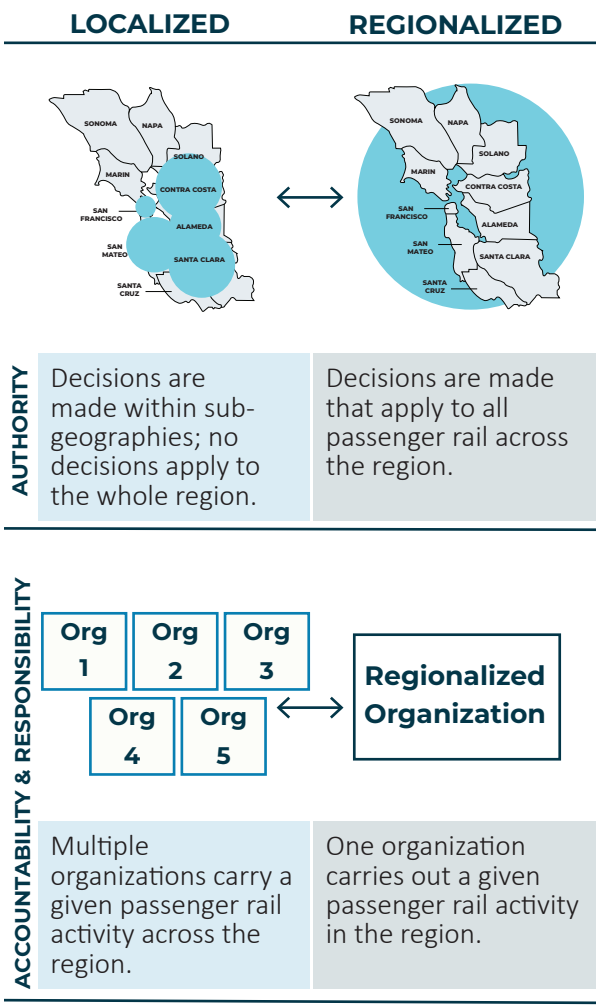
Regionalized may look different across each of these roles:

- **Authority –** decisions are made that are binding across the whole of the region.
- **Accountability and Responsibility –** organization(s) are accountable for ensuring decisions are carried out across the whole region.

In contrast, localized means that:

- **Authority -** decisions are made / authority is executed at a 'sub-geography' in the region – this means that no 'regional' direction can be set and that decisions made within a sub-geography are binding.
- **Accountability and Responsibility –** organizations are accountable for carrying out decisions made within a sub-geography, no organization carries out decisions across the region.

Figure 1.5: Illustrating Regional vs. Local



REGIONALIZATION BY THEMATIC AREA

Regionalization may look different under each thematic area. These differences are explored in the following chapters, which each present:

- Background and Key Gaps in Existing Model
- Potential Changes
- Short List of Options for Further consideration

Each of these chapters explores these concepts in a unique way:

STUDY AREA A – DECISION MAKING (SEE CHAPTER 2)

- **Current state –** few decisions are made at a 'region-wide level', this means that existing decision-making functions are focused on 'sub-geographies' of the region (for example: BART decisions apply to three counties out of the nine in the Bay Area).
- **Regionalized state –** certain types of decisions could be made by a single region-wide decision-making entity (for example: one decision maker could make decisions that would apply to all railway agencies and mega projects).

STUDY AREA B – ORGANIZING CAPABILITY (SEE CHAPTER 3)

- **Current state –** multiple agencies action key railway capabilities across the region (for example: multiple agencies plan, design, and operate passenger railway facilities and services), no capabilities are 'regional in scope'.
- **Regionalized state –** certain types of capabilities could be actioned by a single agency that acts on behalf of and across the region (for example: a single agency leads all planning efforts).

STUDY AREA C – PROJECT DELIVERY (SEE CHAPTER 4)

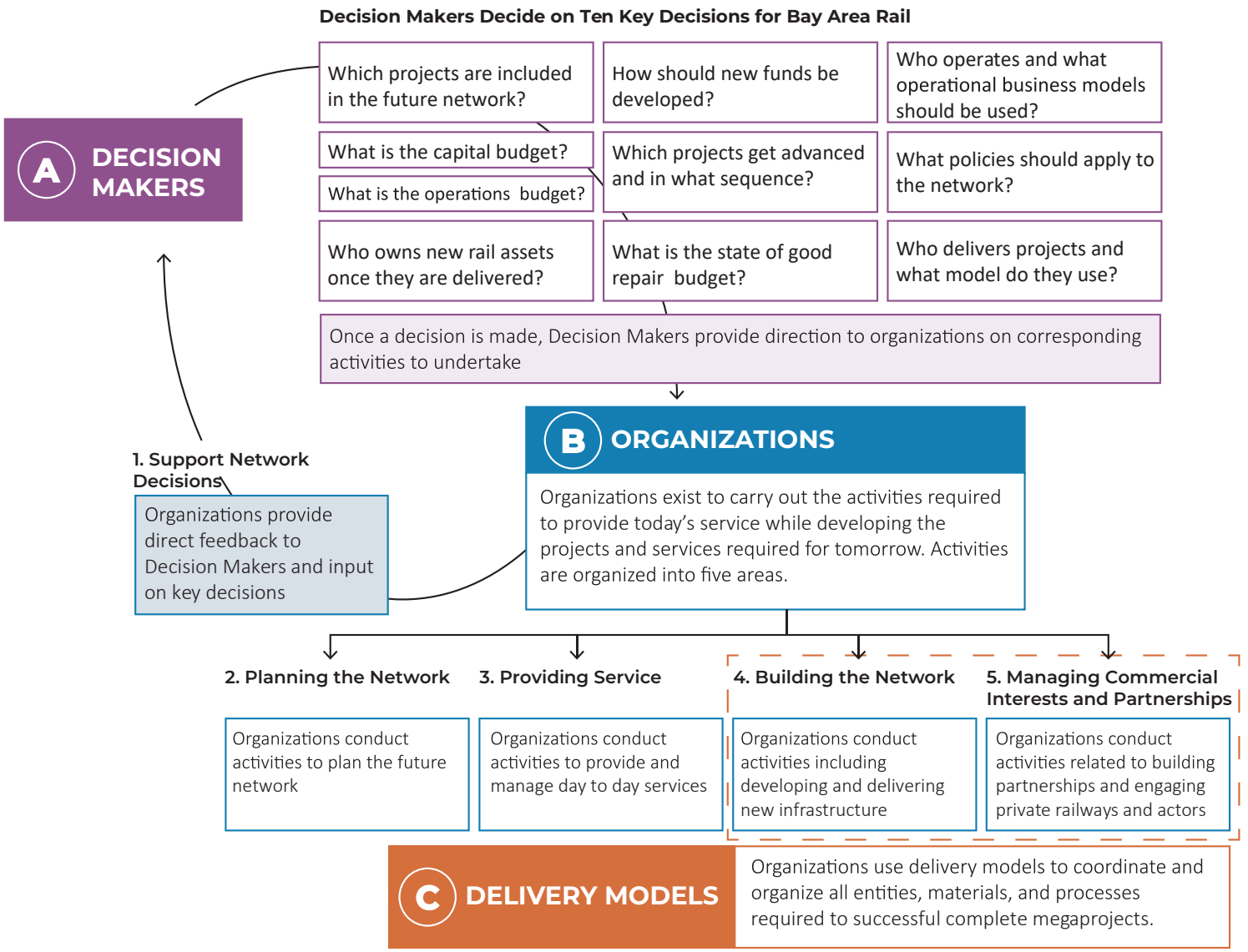
- **Current State –** many agencies deliver mega-projects across the Bay Area.
- **Regionalized State –** some of the elements of project delivery could be carried out across all projects in the Bay Area.

EXPLORING THEMATIC AREAS: STUDY STRUCTURE

The three study areas are visualized in Figure 1.6 (an expansion of Figure 1.1), which shows the relationship between decision makers, organizations, and delivery models. It illustrates the following concepts to set out foundations for the remaining chapters:

- Decision makers are faced with ten key decisions within the rail system. They make decisions, which results in direction sent to one or more organizations.
  - Study Area A explores which of these decisions could be made by regional decision makers (one entity decides for whole region vs. decisions made locally).
- Organizations conduct five activity areas in the Bay Area. Activities are executed based on direction received by decision makers. Decisions may have baring on one or more activity areas.
  - Study Area B explores which of these activities could be carried out at a regional level (one organization conducts all activities across the region) vs. at a local level (multiple agencies conduct activities across the region).
- Delivery models are used to carry out activities related to mega-project delivery.

Figure 1.6: Conceptual Map of Study Area



Study Area A
What railway decisions could be made at a regional level and which ones could be made at a local agency level?

see Chapter 2

Study Area B
What activities could be taken by regional organization(s) instead of local ones?

see Chapter 3

Study Area C
Given the range of megaprojects proposed for delivery, what range of delivery models should the Bay Area consider?

see Chapter 4

1.5 Role of Study

The Rail Partnership study is being undertaken alongside a range of parallel efforts – including a Business Case on Network Management, the development of multiple mega-projects, preparations for a Connected Network Plan, Major Project Advancement analysis, and other efforts. Given the complex study environment, the Rail Partnership study was scoped to focus on specific issues and analysis to: a) support parallel efforts and b) identify a short list of high potential options for further analysis in each study area.

A study hierarchy is shown in Figure 1.7. This hierarchy articulates: decisions made, decisions to be informed by this study, and future decisions. Each chapter provides further detail on what decisions are in scope and out of scope for this study.

Note – these 'decisions' do not refer to rail system decisions, they refer to decisions on potential changes to governance or organization and should be treated as separate from Study Area A and Chapter 2.

Figure 1.7: Study Hierarchy

DECISIONS THAT HAVE BEEN MADE

- Launch the Rail Partnership Study and convene the working group
- Launch the Network Management Business Case

DECISIONS THE RAIL PARTNERSHIP SEEKS TO INFORM

- Across each study area – what options should be included in a short list for future study?
- What ideas could be piloted in the short term?

DECISIONS THAT FUTURE STUDIES WILL INFORM

- What changes – if any – should be made to passenger rail:
- Decision making?
- Organizations?
- Delivery Models?
- How and when should changes be delivered?

2. PASSENGER RAIL DECISION MAKING

CORE QUESTIONS EXPLORED IN THIS STUDY:

- What are the range of decisions made for passenger rail service in the Bay Area?
- How are these decisions made today?
- Could any decisions be better made at a regional level?
- What models could be used to advance regional decision making?

QUESTIONS EXPLORED IN FUTURE STUDIES:

- Should one or more regional decision-making entities be created?
- What is the structure and composition of regional decision making entity(ies)?
- How and when should the decision making entity(ies) be deployed?

2.1 Introduction

Decision Making – or authority – is the ability of an entity to set binding direction for one or more elements of the Bay Area passenger rail system. More specifically, in this study, decision making is defined as:

Having the authority to make binding decisions that allocate funds, set priorities, define scope, and compel one or may agencies to take action to implement the decision.

CHAPTER STRUCTURE

This chapter explores the following:

- Passenger Railway Decisions
- Potential Changes to Decision Making Changes
- Options for Creating Regionalized Decision Making

2.2 Passenger Railway Decisions

OVERVIEW

Figure 1.6 introduced 10 key decisions within the passenger rail system. These decisions reflect a range of policy, financial/commercial, and technical decisions that are made to plan, deliver, improve, and provide service within the Bay Area passenger rail system. While these 10 types of decisions are a simplification – they allow this study to articulate gap and areas where potential regionalization could be a benefit, and areas where local decision making is optimal. At a high-level, these decisions are consistent with those made in peer jurisdictions as well.

APPROACHES TO DECISION MAKING

Decision making models (or approaches to decision making) define different ways to organize powers within the region to make decisions. This study uses three types of decision-making to explore potential changes in the Bay Area:

- Regionalized
- Local and Regional
- Localized

These three approaches are visualized in Figure 2.1.

Figure 2.1: Approaches to Decision Making

LOCALIZED

Multiple Decision Makers Across a Region for a given decision type

Decisions are made by decision makers for specific agencies (low degree of regionalization).

Any decisions that occur at an 'agency level' only apply to specific agencies. Decision makers are typically directly linked to the agency (example: a board).

This means multiple decision-makers exist for a given decision type.

Example

Project advancement decisions are made exclusively at a sub geography.

SHARED DECISION MAKING

A given decision type is divided into situations where they are made by agencies or made by a regional entity

Decisions are made collaboratively between decision makers with authority over a specific agency and those with regionalized authority (meaning they have the ability to direct multiple agencies).

Some decisions may be made at an agency level, some may be made at a regional level, and others may be made through negotiations between regional and agency level decision makers.

Example

Project advancement decisions are divided into those that need regional oversight and those that are best made locally.

REGIONALIZED

A given decision type is made exclusively by an entity with authority over the whole region

Decisions are made by a 'regionalized' decision-making entity with authority over all passenger railways within a set geography (for example: the Bay Area).

This means across the Bay Area a given decision type would only have one decision-making entity

Example

Project advancement decisions for all projects are made at a regional level.

INCREASING REGIONALIZATION

Note – each decision type may be made at an agency, shared, or 'one decision-maker' level. A region may have multiple levels of decision making in use.

KEY DECISIONS FOR PASSENGER RAIL

Decisions have been organized into ten over-arching categories, or 'decision types' that include the key decisions that are required within rail networks generally. Decision types are outlined in **Table 2.10** which also includes the range of decisions included in each decision type, and whether the decision is currently agency-level, shared, or regionalized in the Bay Area.

2.3 Potential Changes to Decision Making

Of the ten types of decisions, none are currently made exclusively be a regionalized entity. Decisions 1-4, and 7-8 are shared due to the involvement of MTC, the State, or other regional entities. However, the remaining decisions are made at a localized level – this means that there are organization specific decision makers that can provide binding direction to specific agencies but no decision makers that can provide binding direction across the region.

This study reviewed if there is a case to shift any decision types from localized to shared or regionalized, and from shared to regionalized. It also explored if any shared responsibilities could be made localized and if any benefits could ensue.

This analysis used the study statement and the issues and opportunities identified in Figure 1.4 to identify which changes could be considered further. Analysis was conducted through workshops with rail partner staff, strategic assessment, and research from peer jurisdictions.

Guiding assumption to analysis – no one approach is better or worse inherently for any decision; it depends on the type of decision being made and regional context. This study focused on key decisions for Bay Area rail agencies, future efforts could consider decision making spanning the Bay Area, the Mega Region, or the State.

The results of this analysis are presented in Table 2.2, which defined the following for each decision area:

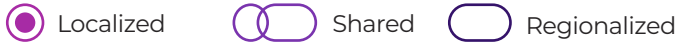
- Current approach
- Future approach for further study
- Rationale for change
- If shared, which decisions could be considered for regionalization, localization?

Table 2.1: 10 Key Rail Decisions Areas

Localized Shared Regionalized

	Decision Area	Approach Today	Example Decisions
1	Which projects are included in the future network?	Shared	• Launching a network planning exercise • Defining criteria for project inclusions • Confirming project inclusion in the network, and confirming those that are excluded
2	Which projects get advanced and in what sequence?	Shared	• Confirming go/no-go for mega-projects delivery • Confirming and applying criteria for project advancement (such as level of risk, level of design) • Confirming timelines for advancing a project through the project life cycle
3	How should new funds be developed?	Shared	• Confirming funding envelopes • Confirming tactics and tools used to generate funds (example: ballot measures, senior government grants, fare revenues)
4	What policies should apply to the network (infrastructure, customer experience, and service)?	Shared	• Setting fares • Defining standards for service levels, customer experience, and facility standards • Setting policy objectives and confirming programming to realize them • Defining integration measures between discrete passenger services
5	Who owns new rail assets once they are delivered?	Localized	• Confirming which agency owns a new project and assumes responsibility for publicly owned infrastructure once it is delivered
6	Who delivers projects and what model do they use?	Localized	• Confirming which agency is responsible to deliver a mega-project (including existing or new agencies) • Confirming the delivery model used to deliver a project
7	What is the capital budget for new projects?	Shared	• Defining the affordability envelope for mega-projects • Defining the overall capital budget for a portfolio of mega-projects • Approving or confirming budget changes as projects advance through the lifecycle
8	What is the state of good repair budget?	Shared	• Approving the overall budget (expenditure) for state of good repair
9	What is the operations budget?	Localized	• Approving the overall budget (annual) for operations and maintenance – including how funds are spent and which initiatives they are applied to
10	Who operates and what operational business models should be used?	Localized	• Defining which agencies can operate or provide passenger rail service • Confirming operating practices and standards for day-to-day deployment of service

Table 2.2: 10 Key Rail Decisions Areas



	Decision Area	Decision Making Today	Potential Approach	Rationale	If shared, which decisions could be localized, collaborative, or regionalized?
1	Which projects are included in the future network?	Shared	Regionalized	Allows broader network planning integration spanning multiple agencies and geographies	
2	Which projects get advanced and in what sequence?	Shared	Regionalized	Allows for more effective organization of regional resource for new mega projects	
3	How should new funds be developed?	Shared	Regionalized	Allows region-wide go/no go decision making before developing a new funding program (example: ballot measure) to support future mega projects, and thus coordination with other decisions	
4	What policies should apply to the network (infrastructure, customer experience, and service)?	Shared	Shared	Allows agencies to make best choices for their customers, while collaborating on decisions that impact customers travelling between agencies and geographies	• Shared – fare integration policies • Localized – agency specific fares
5	Who owns new rail assets once they are delivered?	Localized	Shared	Allows for regional dialogue on which agencies are best positioned to own and operate projects, and how	• Regionalized – confirming approach to asset ownership across all mega projects • Localized – accepting agency role as owner
6	Who delivers projects and what model do they use?	Localized	Shared	Allows the region to determine most effective approaches to delivering new projects (new lines or extensions) and create efficiencies and manage risks more holistically	• Regionalized – confirming delivery models at a regional scale • Localized – accepting agency role as delivery entity
7	What is the capital budget for new projects?	Shared	Shared	Allows for a collaborative approach that combines regional/ state/federal funds with local funds for new projects	• Regionalized – defining use of regional funds • Localized defining role of local funds
8	What is the state of good repair budget?	Shared	Shared	Allows for SOGR to be included in early project planning, while enabling agencies to make best choices for how funds are deployed for specific needs	
9	What is the operations budget?	Localized	Localized	Allows agencies to make full-service planning decisions and allocate operating funding accordingly	
10	Who operates and what operational business models should be used?	Localized	Shared	Allows for service planning decisions to be made where services meet or share assets, while allowing agency specific decisions to be made locally	• Regionalized – deciding on operational issues that implicate multiple railways • Localized – deciding on issues with minimal regional impact

The rationale presented in Table 2.2 can be generalized as follows:

- Decisions with high potential for regionalization tend to be those that relate to the use of regional resources, shape the future the network, impact multiple passenger rail services, or impact customers who use multiple railways.
- Decisions with high potential for a shared model tend to be those that have both local and regional dimensions. These decisions are ones where a wholly regionalized or localized approach may carry significant risks or impacts or limit benefits realization. Under these approaches, decisions require further subdivision and a collaborative model between levels of decision making for success.
- Decisions with high potential for localization are those where the resources, services, or customers impacted are largely within one agency. These decisions are more focused on the short to medium term.

This rationale is expanded upon in Table 2.3.

CORE GAP – A LACK OF REGIONAL PERSPECTIVE

The core gap identified in this work is a consistent regional perspective on key decisions related to the state of the future network. This means decisions that have a direct impact on the following areas may not consistently have a regional perspective:

- How regional resources are secured and used
- The state and structure of the future network
- Multiple agencies
- Customers using multiple agencies

Today, localized and shared decisions may include regional issues and considerations. However, this may be ad-hoc and there are few decisions where a regionalized decision maker can set binding direction across the Bay Area. As a result there are potential downsides:

- Resources may not be used on the most beneficial projects
- The sequence to advance projects may not realize the greatest benefits, integrate disparate networks, or minimize risk
- Delivery decisions are often project specific and do not necessarily include the entire regional perspective

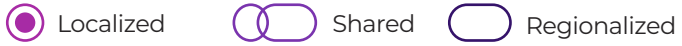
Combined, this means there may be reduced resource efficiency at a regional scale.

Table 2.3: Rationale for Exploring Regionalized and Shared Decision Making by Decision Area

Localized Shared Regionalized

Decision Area	Potential Approach	Does it impact use of regional resources?	Does it impact the future of the network?	Does it impact multiple agencies?	Does it impact customers using multiple agencies?
Which projects are included in the future network?		**Yes –** planning and delivering future mega-projects requires regional resources and efforts. Regionalizing this decision allows planning decisions to consider a 'holistic' perspective and identify optimal uses of limited regional resources.	**Yes –** by definition this decision defines what projects (stations, extensions, new lines) will be include in the network. Regionalization allows decisions `to be made considering projects across the region at once to identify promising ideas.	**Yes –** selecting projects for the future network has an impact on all agencies that propose a project. Regionalization could allow decision makers to consider impacts across the network and agencies and develop accountable and evidence informed approaches to select projects.	**Yes –** many mega projects are anticipated to connecting existing infrastructure and services and provide new travel opportunities. Regionalization allows the perspectives of travelers using multiple agencies to be explicitly considered in decision making.
Which projects get advanced and in what sequence?		**Yes –** project sequencing identifies which resources to use and when. Regionalization allows limited regional resources to be considered at a regional level of decision-making.	**Yes –** project sequencing identifies which projects get delivered and in what order. Regionalization allows for the sequence to consider efficiencies and realize benefits across the whole portfolio of projects.	Yes – project sequencing impacts all agencies seeking to advance a project. Regionalization allows for all projects across the region to be considered centrally.	**Yes –** regionalization allows projects that serve customers using multiple agencies to have equal representation in decision making processes.
How should new funds be developed?		**Yes –** regionalization allows for an integrated approach to decision making on raising and spending regional funds.	**Yes –** regionalization allows decision makers to decide how to use regional funds to deliver future projects holistically.	**Yes –** many agencies rely on regional funds for delivery. Regionalization allows for clear, accountable, and evidence informed processes that take into account needs across the region for developing funding.	**Yes –** regionalization allows for multi agency projects to receive the same consideration as other agency specific projects during funding development.
Who delivers projects and what model do they use?		**Yes –** different delivery models have different cost efficiencies and value for money and vary between projects. A shared approach allows for decisions to be made on regionally matters while leaving local resource questions to local agencies.	**Partially –** once a project is advanced, the delivery model can still impact scope and completion timelines. A shared model allows for regional decisions on regionally delivery issues while maintaining local autonomy on local issues.	**Partially –** some projects are delivered by single agencies, others by partnerships. A shared approach allows for a regional role in shaping delivery across projects while maintaining local decision making for local impacts.	**Partially –** only for projects that serve multiple agencies. A shared approach allows for decision makers to focus on regional issues for such projects, while maintaining autonomy for local projects.
What policies should apply to the network (infrastructure, customer experience, and service)?		**Partially –** some policies may impact the use of regional resources. A shared approach allows these policy matters to be decided upon regionally, while leaving other matters to a local level.	**Weak connection –** policies (as defined in the study) shape how the network is used and operated.	**Partially –** some policies impact multiple agencies, others do not. A shared approach allows for inter-agency policies (such as fare integration) to be decided upon regionally while allowing local.	**Yes –** this decision area includes many policies that impact customers using multiple agencies. A shared approach allows for regional decision making on topics concerning these customers.

Table 2.3: Rationale for Exploring Regionalized and Shared Decision Making by Decision Area



Decision Area	Potential Approach	Does it impact use of regional resources?	Does it impact the future of the network?	Does it impact multiple agencies?	Does it impact customers using multiple agencies?
What is the capital budget for new projects?		**Yes –** regional resources are typically used to build projects. A shared approach allows for regional decision makers top decide how to use regional resources, while allowing local resources to be used on specific new projects.	**Yes –** this decision defines the capital budget to build new projects.	**Yes –** budget setting impacts all agencies building a project. A shared approach allows for agency specific financial decisions to be made by agencies, and use of regional funds to build projects to be made regionally.	**Yes –** this decision includes funding for projects that serve customers across the region. A shared approach allows regional interests to be reflected in funding while safeguarding local autonomy for local funds.
What is the state of good repair budget?		**Yes –** historically regional resources have been used for SOGR. A shared approach allows for regional decision makers to allocate funds to SOGR while allowing agencies to spend money on most pressing issues.	**Partial –** future network performance is predicated upon SOGR.	**Yes –** regional resources could be used across multiple agencies. A shared model allows agencies to use own resources for SOGR while requesting regional resources as well.	**Yes –** this decision impacts new and existing elements of the network used by customers travelling across multiple agencies.
Who owns new rail assets once they are delivered?		**Yes –** different ownership models may impact what regional resources are required and when. A shared model allows regional decision makers to consider the regional perspective on resources while allowing local agencies to select projects they seek to own and operate.	**Partial –** ownership may impact the long-term conditions of new projects post delivery. A shared model allows regional and local decision makers to balance regional and agency matters when finalizing a project.	**Yes –** all agencies seeking to develop and own a new asset are implicated by this decision area. A shared approach allows regionally significant projects to undergo regional discourse, while agency specific projects remain their autonomy.	**Partial –** ownership may have some impact on customer experience between agencies. A shared approach allows for consideration of these customer needs during project decision making.
Who operates and what operational business models should be used?		**Yes –** regional resources may be required to support ongoing operation. A shared approach allows for discussion and regional decisions when regional resources are required for a business model or new operator.	**Yes –** defining ongoing operational roles and the models used is a key element of providing the future network. A shared approach allows for regional perspectives on efficiency and benefits to be considered, while allowing for local autonomy where most efficient.	**Yes –** this decision area is currently held by each agency. A shared approach could allow for regional perspectives to shape the ongoing evolution of passenger service (Example: rail post COVID) without removing local ability to adapt to change.	**Partial –** only some agency business models directly impact customers travelling on multiple services.
What is the operations budget?		**Partial –** only if regional resources are provided. A local model allows agencies to allocate resources into operating budgets based on locally understood needs and challenges.	**Yes –** operating budgets determine the amount and quality of service that can be provided. A local model allows agencies to identify optimal use of their own resources based on current and future needs.	**No –** operating budgets are not typically shared between multiple rail agencies.	**Partially –** operating budgets may impact service connections for customers using multiple agencies.

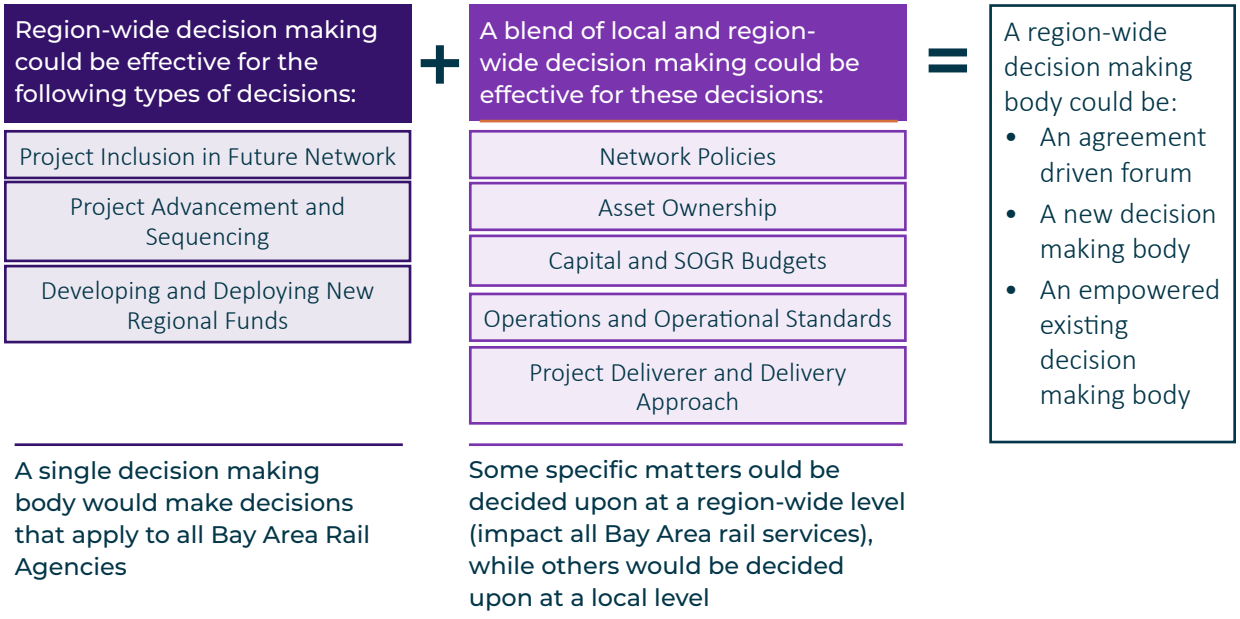
2.4 Options for Regionalized Decision Making

There are numerous types of changes that could occur regionalize decision making in the Bay Area. Based on the decisions identified previously as regionalized or shared, the following models were explored:

- Status Quo Decision Model with ad-hoc collaboration
- Memorandum of Understanding (MOU)
- Legally Binding Multilateral Agreement
- Joint Powers Authority
- Empower an Existing Decision Maker
- Create a New Decision Maker

An initial analysis identified a short list of three for consideration in future work based on the range of decisions identified as 'higher potential for regionalization'. These are illustrated in Figure 2.2 and include "agreement driven forum", "a new decision making body", and "an empowered existing decision making body".

Figure 2.2: Short List of Decision-Making Models



NEXT STEPS FOR CONTINUED ANALYSIS OF DECISION MAKING CHANGES

It is proposed that MTC take the following actions:

- Review the regionalized and shared decisions and explore the benefits, costs, and trade-offs in greater detail. This process should consider the specific decisions best suited for a regionalized model based on the Bay Area's current situation and planned future with respect to rail network and financial well-being.
- Explore the three types of decision making options (agreement, new body, empowered existing) and explore the structure of the entity (appointed vs. elected board, citizen forum, and other formats) and the specific tools to deploy

3. PASSENGER RAIL ORGANIZATIONS

CORE QUESTIONS EXPLORED IN THIS STUDY:

- Which capabilities are potentially better organized at a region-wide scale (top-down) rather than an agency scale?
- What are the expected benefits/ trade-offs that may arise from different approaches to organization?

QUESTIONS EXPLORED IN FUTURE STUDIES:

- What activities that should be consolidated at a regional level?
- What organizational model should be used to consolidate railway activity?

3.1 Introduction

Organizations refer to the agencies, divisions of government, and other public sector actors involved in the planning, delivery, operation, and maintenance of passenger rail service in the Bay Area.

Organizations are directed by decision-makers to carry out all activities related to the passenger rail system.

Organizations are the collection of people and teams that conduct all activities corresponding to decisions (see Chapter 2).

Decision makers may be organization specific (e.g. the BART board), while in other contexts the decision maker may be a separate entity that directs one or more organizations. Today, a number of organizations serve the Bay Area and adjacent areas – including Joint Power Authorities, special districts, and government agencies. This section of the report explores if any activities conducted by these organizations could be 're-organized' and carried out at a regional level.

CHAPTER STRUCTURE

This chapter explores the following:

- Passenger Railway Accountability: Activities and Capabilities
- Potential Changes to Activity Accountabilities
- Organizational Change Options

3.2 Passenger Railway Accountability: Activities and Capabilities

The Rail Partnership study explored the question of "which organizations take part in the passenger rail system" using two key and related terms: activities and capabilities. Activities are illustrated in Figure 3.1 and were previously discussed in Chapter 1. This figure includes a five types of activities, the core activities in each type, and an overview of the activity.

An activity is something that is required to make the 'rail system' work. This includes all actions undertaken by railway agencies on a day to day and long-term basis in response to the direction provided by decision makers.

Activities are used to discuss what needs to be done for the day to day and long term deployment of passenger service in the Bay Area. They are paired with a second term: capability.

Capability refers to the ability of an organization to carry out an activity. Different organizations will have different capability to carrying out the five types of rail system activities. Capabilities include staff skills, ability to grow and manage labor pools, organizational mandate, technology deployed by an organization, and historic performance.

This chapter focuses on exploring these two concepts to assess potential organizational changes in the Bay Area under the theme of 'accountability'. An organization is said to be accountable when it is the one directed by decision makers to ensure the completion of an activity based on direction.

Figure 3.1: Summary of Passenger Rail Activities

ACTIVITY AREAS	1. Supporting network decisions	2. Shaping the network	3. Providing quality service	4. Building the network	5. Managing commercial interests & partnerships
OVERVIEW	Conducting activities related to decision maker engagement. This includes: generating, summarizing, and providing evidence to decision makers, and the development and use of regional funds.	Conducting all activities related to long range network planning (long range – typically 5-20 year + horizon) of passenger rail services, infrastructure, and policy development.	Conducting all activities related to providing day to day service. This includes short term planning and management of passenger rail assets.	Conducting all activities related to completing new mega-projects in the network. This spans preliminary design, detailed design, procurement, construction, and relationship management.	Conducting all activities related to managing private sector relationships. Including relationships with vendors and relationships with Class1 Railroads.
CORE ACTIVITIES	Decision Making Support Funding Coordination	Early Project Development Long Range Infra Planning Long Range Service Planning Network Policies	Customer Engagement Service Planning Safety and Enforcement Service Delivery Fleet Delivery and Maintenance Infra Maintenance	Preliminary Engineering and Procurement Infrastructure Delivery Public Sector Contractual and Quasi-contractual Partnerships	Private Sector and Freight

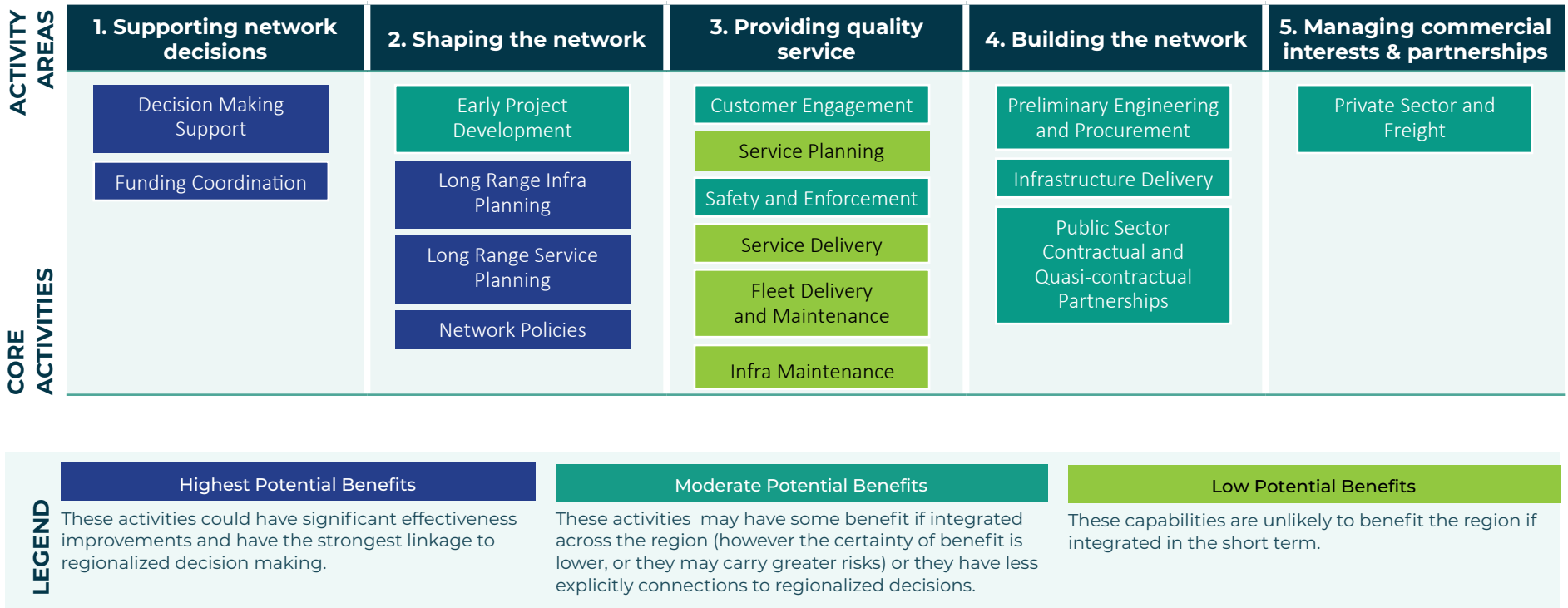
3.3 Potential Changes to Activity Accountabilities

Today, many activities are conducted by multiple organizations across the Bay Area. For example – multiple organizations provide service or conduct project development. The Rail Partnership study used the activities framework in Figure 3.1 to explore potential changes to organizations in the passenger rail system. This exploration included a consideration of:

- **Efficiency/effectiveness of Capability -** Are there activities that could be better delivered if they are deployed at a regional scale (by one organization) instead of multiple organizations?
- **Linkage to Decision Making -** Are there activities for which a change in accountability would align with the identified 'regionalized decisions' in Chapter 2?

Each activity area was assessed across the four lines of inquiry (see Chapter 1) to determine whether or not regionalizing the activity would be beneficial. Figure 3.2 provides a color coded summary of the activity types that are more or less likely to benefit from regionalization.

Figure 3.2: Assessment of Regionalization Potential by Activity Area



3.4 Organizational Change Options

POTENTIAL ORGANIZATIONAL MODELS

If activities are 'regionalized' – meaning they transitioned to a regional organization there are multiple organization models that can be used. The Rail Partnership study identified three types of models that could be considered based on degree of 'consolidation' of staff and effort.

Consolidation means 'shifting' activities that are carried out by multiple local organizations into a single regional organization. At its greatest extent, consolidation would concentrate all staff and work within one organization. At its minimal extent, a regional organization would collaborate with other local organizations without a total transition of staff and efforts.

This spectrum of different approaches to consolidation has been simplified into three models, shown in Figure 3.3. This figure illustrates three approaches to consolidation.

The first model (Consolidation) would mean that only a regional organization can conduct an activity once it has been regionalized.

The second model ("One Team, Many Agencies") would in effect concentrate staff and activity in a regional organization; however some staff and effort would remain in local organizations. Under this second model, the regional organization could directly lead local organizations to carry out activities at a regional scale. This creates a distributed team between the different organizations, with the leadership of this team carried out by the regional organization.

The third model (Collaboration) would have a regional organization who is accountable to decision makers for regional activities. However, this organization would not have any direct ability to lead local organizations. Regional activities would be conducted collaboratively – for example, through ad-hoc agreements or working groups.

Figure 3.3: Potential Organizational Models

POTENTIAL OPTIONS

The Rail Partnership study considered different opportunities to apply the organizational models in Figure 3.3 to the activities with highest regionalization potential from Figure 3.2. This results in four options for a regional organization, which are outlined at a high-level in Figure 3.4 and detailed (compared to today's model) in Figure 3.5.

These options define an organization based on the activities that are 'shifted' from being carried out by local organization to a single regional organization. This regional organization could be either a new organization or could be an existing organization with an expanded mandate.

The detailed review in Figure 3.5 should be considered with two notes:

1. Activity areas 4 and 5 are not included – these are the focus of Delivery Models in Chapter 4
2. All service activities remain with local organizations under all options – an assessment conducted as part of the study noted that these have the lowest potential for benefits from regionalization at this time

Figure 3.4: High-Level Overview of Four Regional Organization Models

(1) PLANNING AND COORDINATION ENTITY (PCE)

- Leads the development of regional plans, project prioritization, and funding with all work completed by the PCE
- Organizes a regional forum for coordination and collaboration on network policies, customer experience, and mega project planning and development

(2) RAILWAY PLANNING AND PROJECTS AUTHORITY (RPPA)

- Leads the development of regional plans, project prioritization and funding with all work completed by the RPPA
- Lead entity on project planning and development with collaborative 'multi agency teams'
- Organizes a regional forum for coordination on new projects

(3) BAY AREA RAIL AUTHORITY (BARA) WITH DISTRIBUTED TEAMS

- Leads the development of regional plans, project prioritization and funding with all work completed by the BARA
- Lead entity on project planning and development, on network policies, and customer experience with collaborative 'multi agency teams'

(4) CONSOLIDATED BAY AREA RAIL AUTHORITY

- Leads the development of regional plans, project prioritization and funding, and mega project planning and development with all work completed by the BARA
- Lead entity on network policies, and customer experience with collaborative 'multi agency teams'

Figure 3.5: Organizational Models Compared to Existing Conditions

	Activities	Today	Option 1 – Planning and Coordination Entity	Option 2 – Rail and Projects Planning Authority	Option 3 – Bay Area Rail Authority with Distributed Teams	Option 4 – Consolidated Bay Area Rail Authority
ACTIVITY 1	Decision Support, Funding Coordination	--	O	O	O	O
	Funding Coordination	--	O	O	O	O
ACTIVITY 2	Long Range Infrastructure Planning	--	O	O	O	O
	Long Range Service Planning	--	O	O	O	O
	Early Project Development	X	--	+	+	O
	Network Policy Development	--	--	--	+	+
ACTIVITY 3	Customer Engagement	X	--	--	+	+
	Service Planning	X	X	X	X	X
	Safety and enforcement	X	X	X	X	X
	Service Delivery	X	X	X	X	X
	Fleet Delivery and Maintenance	X	X	X	X	X
	Infrastructure Maintenance	X	X	X	X	X

INCREASING CONSOLIDATION OF CAPABILITIES IN A REGION-WIDE ORGANIZATION

Each option includes a regional organization (either a new one or an existing one with a changed mandate) that has leadership over regionalized activities:

O
Regional organization is accountable for and conducts all activities

+
Regional organization is accountable for this activity and can lead other local organizations to conduct these activities at a regional scale

--
Regional organization is accountable for collaborating with local organizations in a given activity at a regional level, but the regional organization does not have direct control over activities at local organizations

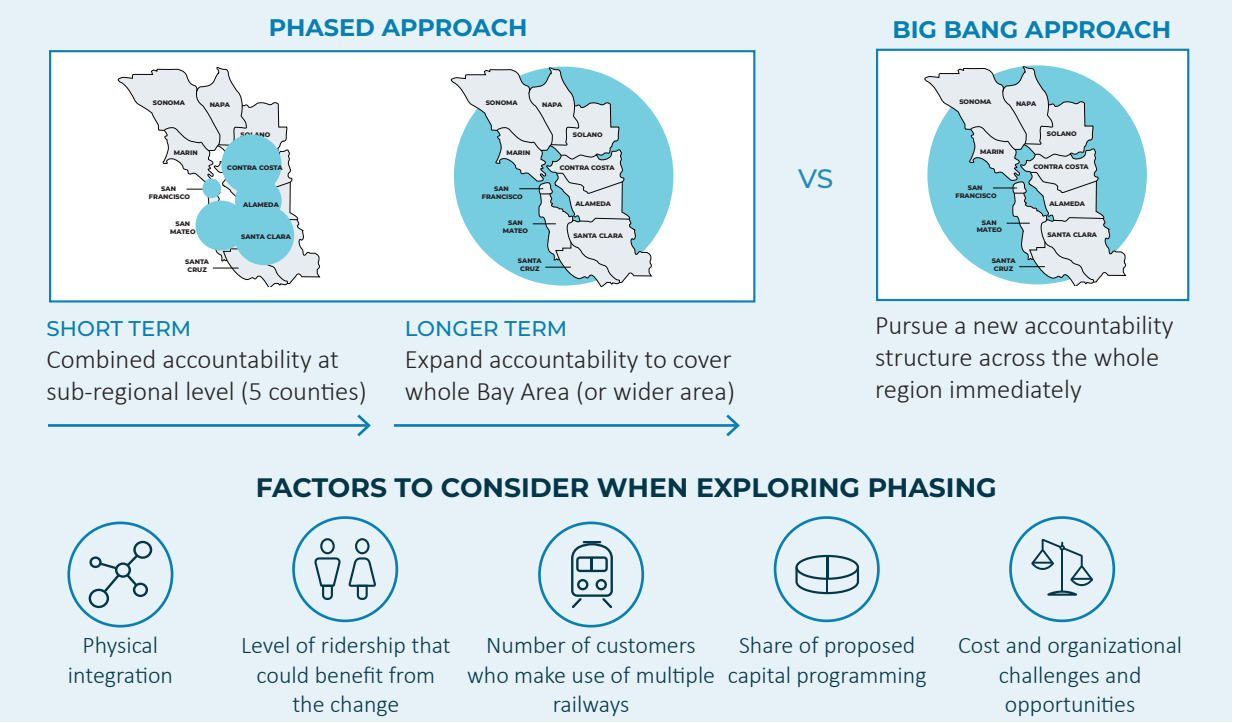
X
Activities in grey continue to have multiple organizations lead and action them without leadership of a single regional entity.

IMPLEMENTING CHANGE – A BIG BANG OR PHASED APPROACH?

Figure 3.6 defines two approaches to delivering these options – a phased approach or a 'big bang approach'. The phased approach would allow MTC and partners to deliver some of these changes in a focused geography and expand over time, whereas a big bang approach would aim to deliver all changes across the region at once. This study reviewed multiple factors related to the potential for benefit realization, key risks and challenges, and the current slate of decisions and mega-projects under development to assess each approach.

This study recommends considering a phased approach as a foundation of next steps.

Figure 3.6: Approaches to Implementing Change



NEXT STEPS FOR CONTINUED ANALYSIS OF ORGANIZATIONAL CHANGES

It is proposed that MTC take the following actions:

- Conduct a detailed cost-benefit analysis of each option to test and challenge the initial analysis in the Rail Partnership Study – this analysis should provide an evidence driven view on the activities to regionalize and the organizational structure to develop for them
- Conduct additional analysis on the implications of decision making change and organizational change (assessing how the models in Chapter 2 for a decision making entity could impact a regional organization for rail activities

4. DELIVERING PASSENGER RAIL MEGA PROJECTS

CORE QUESTIONS EXPLORED IN THIS STUDY:

- What are the capabilities required to deliver the regional portfolio of projects?
- How could capabilities be distributed to deliver projects?
- Which models address gaps and challenges and complement the existing condition?

QUESTIONS EXPLORED IN FUTURE STUDIES:

- What delivery model should be used for the slate of upcoming projects?
- What models should be used for future projects?
- How should a new delivery model be introduced or created?

4.1 Introduction

Bay Area project portfolio was valued at $69 billion in Plan Bay Area 2050 and includes a wide range of mega-projects to expand and improve the passenger rail network. This chapter focuses on Delivery Models that can be deployed in the Bay Area to meet this ambition. In 2007, MTC's Regional Rail Plan recommended that a "federation" approach to delivering projects was best suited for Bay Area rail transit agencies. This study builds on this finding to identify a short list of delivery models for consideration in the Bay Area.

This study defines a Delivery Model as the model required to organize capabilities to deliver a capital project, program, or portfolio of capital works. These are the works that relate directly to the delivery of a passenger rail infrastructure asset or network.

CHAPTER STRUCTURE

This chapter explores the following:

- Key Issues for Delivering Passenger Rail Mega Projects
- Core Gap: Portfolio Management
- Potential Delivery Models

Figure 4.1: Passenger Rail Delivery Eco-System

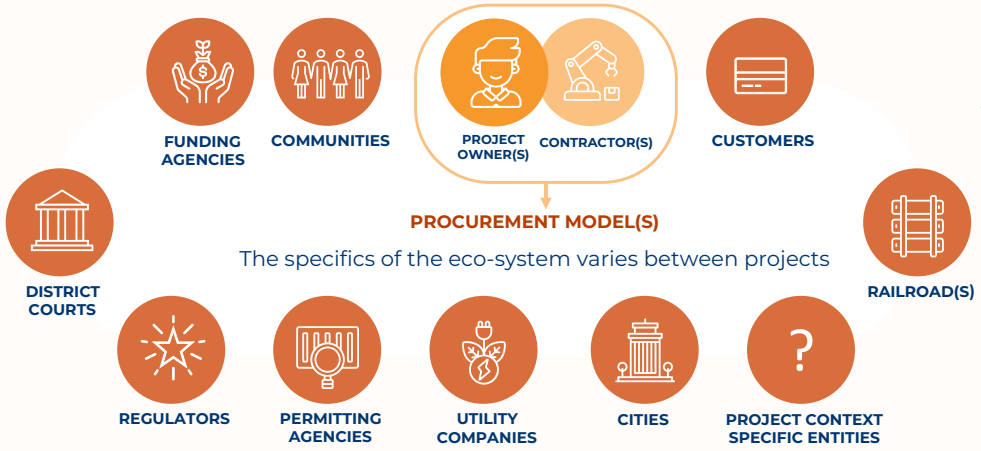


Figure 4.2: Delivery Actions and Ecosystem Collaboration

TAKING ACTION TO DELIVERY PROJECTS

Procurement	Commercial & Contractual Management	Legal
Engineering	Funding and Budget Management	Government Affairs
Stakeholder Engagement	Environmental Review	Construction Management

Activities are conducted by the project developer or contracted public or private partners.

Core Passenger Rail Delivery Activities

DELIVERING WORK WITHIN THE RAIL ECO-SYSTEM

Working with non-passenger rail entities to enable successful projects

4.2 Key Issues for Delivering Passenger Rail Mega Projects

The Rail Partnership Study identified a range of key issues and considerations for advancing delivery models in the Bay Area. These issues are summarized below to inform the identification of potential gaps (4.3) and models (4.4) later in the chapter.

CONSIDER THE ECOSYSTEM

Figure 4.1 summarizes the range of rail and non-rail organizations required to deliver a project. The actual agencies or organizations are, of course, context specific. Collectively, this group of organizations can be considered a 'rail ecosystem' as it includes the full range of organizations and entities required to successfully deliver a project. Delivery models must consider not just the railway agency itself, but all other entities it must collaborate with and not simply the procurement model.

DEPLOY CAPABILITIES WITHIN PASSENGER RAIL ORGANIZATIONS AND IN COLLABORATION WITH RAIL ECOSYSTEM

Delivery models span two key elements: the activities conducted by passenger rail organizations and the actions of the broader rail ecosystem. These are visualized in Figure 4.2 – with the activities representing a subset of activities as identified within Chapter 3. This illustration is intended to show two key elements of any delivery model – which are expanded upon in Section 4.4.

DIFFERENTIATE BETWEEN MEGA-PROJECTS AND OTHER CAPITAL WORKS

This study differentiates between new mega-projects (such as complex stations, extensions, or new railways) and agency specific capital works. In many instances, agencies may be best positioned to deliver their own state of good repair or lifecycle renewals, while new delivery models may augment the success of larger projects. This dynamic is visualized in Figure 4.3

4.3 Core Gap: Portfolio Management

A review of existing conditions identified a core gap: despite interdependencies, use of regional resources, and the complexity of the project portfolio there is no regional role or manager of portfolio delivery.

Currently, portfolio level risks and benefits are managed by proxy by the existing agencies through delivery of individual projects. In other words, two projects being delivered by two separate agencies may have risks and benefits that result from the delivery of the two projects simultaneously, in addition to the risks and benefits associated with each independent project.

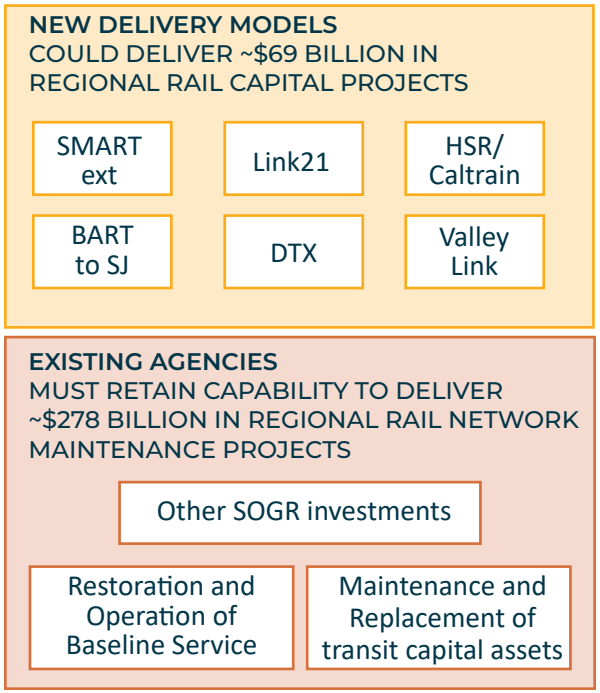
Risks and benefits associated with a regional portfolio of projects extend beyond agency jurisdictional boundaries. One gap for consideration in when assessing new delivery models is how projects interact to produce regional impacts and how regional efficiencies can be realized.

As projects vie for similar resources (financial and technical) and have regional benefits and impacts, a regional view may enable risk mitigation and enhance successful delivery of the whole portfolio.

The investment in the regional portfolio of projects (described in PBA) will result in outcomes that benefit the region, corridors and local communities.

There is no portfolio management capability of rail project delivery therefore the realization of the regional benefits is managed by proxy by existing entities.

Figure 4.3: Separation of new mega-projects at state of good repair



4.4 Potential Delivery Modes

Four potential models have been identified for further consideration in the Bay Area. Each one has the potential to act on this gap and enable the successful delivery of projects. These include:

- **Existing Condition –** How projects are delivered today, the combination of the procurement model and the project specific entities that each project team has to work with. This option would include explicit collaboration on projects with regional implications.
- **Portfolio Manager –** this model could focus on the realization of regional benefits and mitigation of portfolio risk through the planning, procuring and delivery of the portfolio of projects. These organizations exist at the provincial level in Canada and Australia and at the national level in the UK.
- **Big Delivery Entity –** A portfolio of capital projects delivered by one big entity that sits alongside the existing condition. It could "own" projects over a certain threshold and could look like Infrastructure Bay Area as described in the SPUR report[1].
- **Special Purpose Delivery Vehicle (SPDV)[2] –** Entities created for a specific project or program of projects. They have a singular focus and independent powers, capability and capacity to deliver.

These models are visualized in Figure 4.4 Each one of these models has a valid application in the Bay Area context and demonstrable application in other jurisdictions. Doing all of this at once would be challenging.

Delivery models evolve over time in a region based on the number/size/type of projects, the funding environment, available labor and vendor support (market interest), and a range of other factors. The current regional project portfolio is sufficiently diverse and at materially different points in the project lifecycle that all forms of project delivery model should be considered.

KEY CHALLENGES

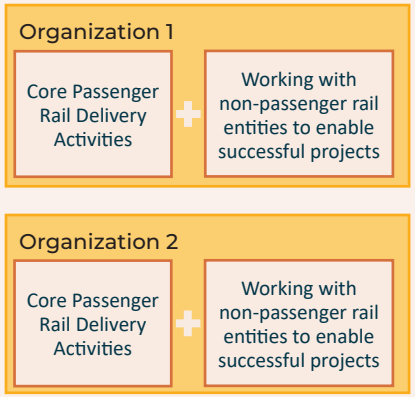
As each project is unique there are a multitude of unique complexities to navigate that this study did not seek to address. For this exploratory study, four common challenges were identified at a high level that any delivery model or combination of needs to be able to naviagte:

1. **Operations-to-Capital Interface.** In rail projects, there is a healthy tension between capital project decisions and operational decisions. Delivery models that segregate capital delivery from operations and include a mechanism to manage the tension are likely to perform better.
2. **Agency-to-Railroad Interface.** Mega projects delivered on host railroad infrastructure are differently complex to those delivered on owned right of way. Delivery models that can incentivize good working relationships with host railroads and plan capital delivery around operational constraints are likely to see mega projects advance more predictably.
3. **Procurement model powers.** The Bay Area rail agencies have limited powers when it comes to the selection of procurement methods within delivery models. This is likely to be a limiting factor in realizing the benefits of any delivery model.

1. https://www.spur.org/publications/spur-report/2020-09-29/infrastructure-bay-area
2. https://projectdelivery.enotrans.org/

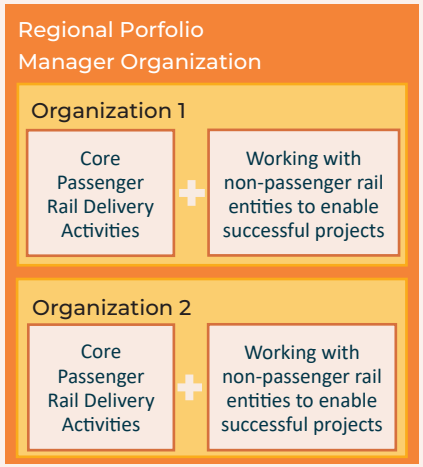
Figure 4.4: Delivery Models for Consideration

1 – EXISTING CONDITIONS WITH EXPANDED COLLABORATION



Multiple organizations are involved in project delivery across the region. This model allows organizations to deliver their own projects without significant regional input. It would require enhanced collaboration on projects to consider regional impacts and risks.

2 – NEW ENTITY: REGIONAL PORTFOLIO MANAGER

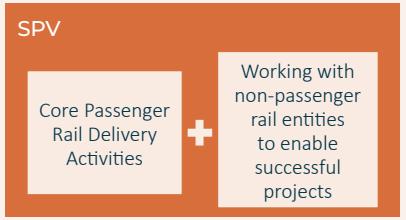


A portfolio manager supports every organization that delivers projects in the region. The portfolio manager is focused on realizing benefits, mitigating risks, and finding efficiencies across multiple projects during procurement and delivery.

3 – NEW ENTITY: BIG DELIVERY ENTITY

A regional entity that conducts delivery activities and engages non-passenger rail entities during the delivery of all major-capital projects in the region (for example: all projects above a capital budget threshold).

4 – SPECIAL PURPOSE DELIVERY VEHICLE(S)



Entities created for a specific project or program of projects. They have a singular focus and independent powers, capability and capacity to deliver. Special purpose vehicles could be used within models 1-3 as an 'overlay' for specific projects or programs.

NEXT STEPS FOR CONTINUED ANALYSIS OF DELIVERY MODELS

It is proposed that MTC take the following actions:

- Explore tools and mechanisms to deploy any of the models identified above – for example legislation or agreements
- Conduct additional analysis on the implications of these models on 'in flight projects' and determine opportunities to trial or deploy new models during the delivery of these projects – this could include organizational analysis and benefit cost analysis

5. CONCLUSIONS

5.1 Overview

This chapter provides two sections to summarize and consolidate findings from the Rail Partnership Study:

- Key Findings
- Next Steps

5.2 Key Findings

The key findings of the study by thematic area are summarized in Table 5.1. Overall, this study explored if regionalization could offer benefits or mitigate risks and disbenefits compared to the existing models for decision-making, acting on decisions, and delivering mega-projects.

Key finding: There are key potential benefits of 'regionalizing' some decision-making and organizational capabilities. Benefits cover all four lines of inquiry. The options across the three thematic areas should be studied further to determine: what is required to successfully implement them, specific benefits they can realize, potential challenges that need to be mitigated, and how they can be combined (example findings from A+B+C) synergistically in the region.

Table 5.1: Key Findings

Thematic Areas	Analysis	Preliminary Findings
A Decision Making for Passenger Rail • Region-wide means decisions are made by an entity or body that represents an area served by multiple agencies • The agency level means decisions are made by specific agencies within the area they serve without an overarching regional process • Hybrid means that decisions on an ad-hoc basis to the agency or region-wide level	A set of ten decision areas were identified by the study team. These include deciding on: 1. Project Inclusion in Future Network 2. Project Advancement and Sequencing 3. Developing new funds for regional projects and programs 4. Defining agency that delivers projects and their and delivery approach 5. Network Policies 6. Capital Budgets 7. State of Good Repair Budgets 8. Asset Ownership 9. Operations and Operational Standards 10. Operations & Maintenance Budgets The study team assessed potential benefits, risks, and trade-offs of making these decisions at a region-wide, agency, or hybrid level.	Analysis identified that: • Decisions (1), (2), and (3) could result in benefits to the region and customers if made at a regional level • Decisions (4-9) could benefit from a hybrid model with a blend of region-wide and agency decision making • Decision (10– how to spend operating funding) would have limited benefits at a regional level remain and could remain at an agency level A decision-making entity could be agreement driven, an empowered existing entity, or a new entity. These potential regional decisions will be explored further in future studies.
B Passenger Rail Organizations	Five activities are conduced for successful railway planning, operations, and expansion. They include: 1. Supporting Network Decision Making/Coordinating Funding 2. Long Range Planning (service and infra) and network policies 3. Providing quality service (day to day customer engagement, service planning, service delivery, and fleet/infra maintenance) 4. Mega project design and delivery 5. Procurement and private sector engagement The study team assessed which capabilities could benefit from regionalization.	There are potential benefits of regionalizing certain activities based on capability and decision making. These include: (1), (2), (4), and (5 – procurement). Other capabilities could be executed collaboratively by region-wide entity and agencies, or by agencies alone (with limited expected benefits of consolidation). Four organizational models were identified as potential ways to organize these activities.
C Delivery Models for Passenger Rail Mega-Projects	The existing approach to delivery was analyzed and a key gap was identified: overseeing delivery across the whole portfolio. Four delivery models could be considered further: optimizations of the existing multi-agency model, developing a portfolio manager, creating a big delivery entity, and/or using special purpose delivery vehicles.	Combinations of these delivery models are normal in other reference jurisdictions and appear to have value. The choice of delivery model needs to be informed by understanding the project within a regional portfolio, not in isolation. The lack of a 'whole portfolio view' in the current model is suboptimal from a delivery perspective.

5.3 Next Steps

A set of preliminary next steps have been identified following on from this study:

1. **Pilot region-wide decision making (what works, what does not?)** – a set of pilots are under discussion for implementation in the short term.
2. **Future Studies**
   - Explore the options further and characterize and estimate their incremental costs and gains.
   - Conduct detailed costing, benefits analysis, and phasing planning appropriate for the degree of complexity involved in any changes.

Figure 5.2 summarizes core questions to be explored in future studies across study areas A, B, and C.

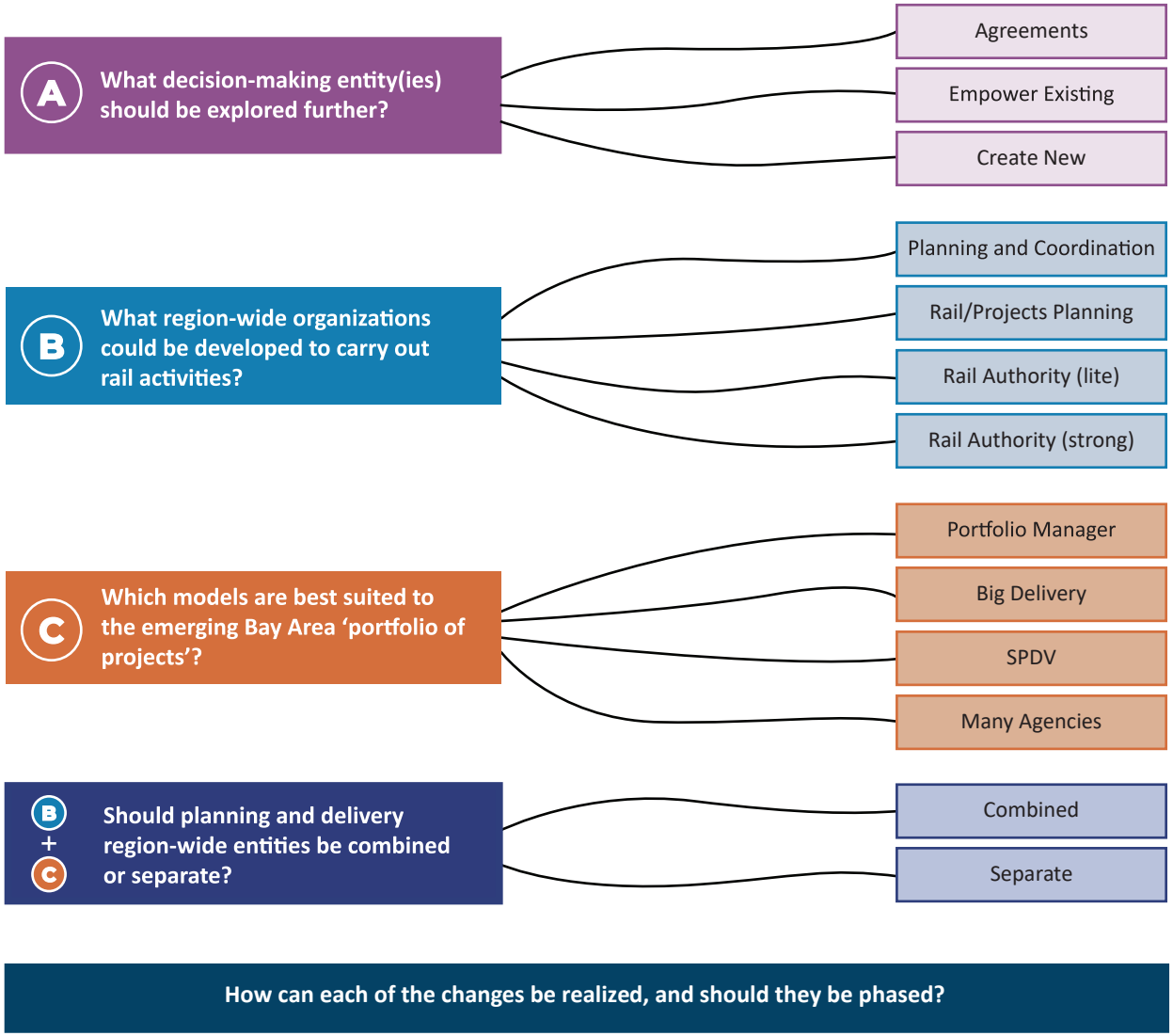
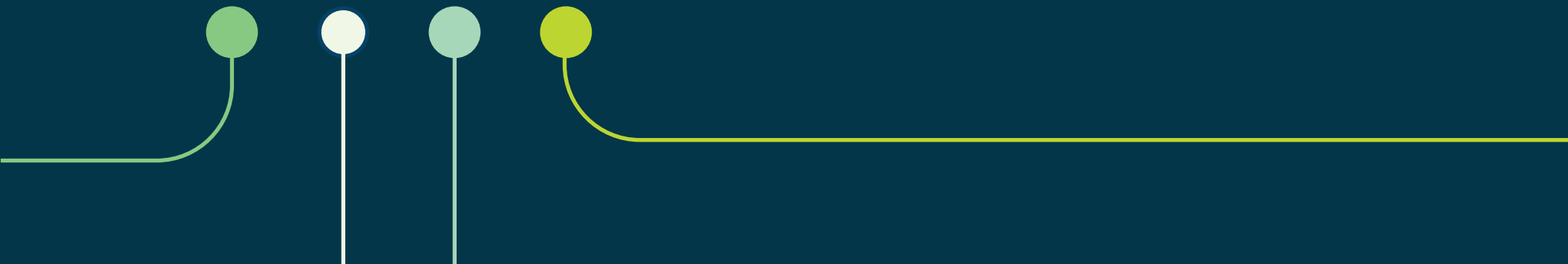



Figure 5.1: Core Questions for Future Studies