CALIFORNIA STATE TRANSPORTATION AGENCY

Transit Transformation Task Force (TTTF) Meeting 8

February 5th, 2025

Public comment and remarks

Roll Call and Approval of the TTTF[1] Meeting Minutes for December 10, 2024

1. Transit Transformation Task Force

Agenda

Topic
1 **Welcome and Opening Remarks**
2 **Roll Call**
3 **Approval of the TTTF[1] Meeting Minutes for December 10, 2024 (Roll Call)**
4 **Discussion of 2025 TTTF Roadmap and TTTF report process** a Staff presentation on 2025 TTTF Roadmap and TTTF report process b Public comment (2 minutes per speaker) c Discussion and possible action
5 **Staff Report on recommendations for Fleet and Asset Management (SB125 1(f)(1)(F)) and Transit System Oversight and Reporting (SB125 1(f)(5))[2]** a Staff report on fleet and asset management and transit system oversight and reporting b Public comment (2 minutes per speaker) c Discussion
6 **Additional discussion on options for additional funding, revenue sources, and funding needs / priorities** a Staff report on options for additional funding, revenue sources, and funding needs / priorities b Public comment (2 minutes per speaker) c Discussion
7 **Discussion of reforms needed to reduce capital construction costs & timelines** a Staff and TWG[3] presentation on reforms needed to reduce capital construction costs & timelines b Public comment (2 minutes per speaker) c Discussion
8 **Public comment for items not on the agenda (2 mins per speaker)**
9 **Preview of next steps**
10 **Adjourn**

1. Transit Transformation Task Force 2. Government Code section 13979.3 3. Technical Working Group

Source: California State Transportation Agency (CalSTA) TTTF Agenda #8

4. Discussion of 2025 TTTF Roadmap and TTTF report process

Draft Outline of Transit Transformation Task-Force report

Draft outline of the Transit Transformation Task-Force (TTTF) report

- **Context:** SB125 and the Transit Transformation Task Force (TTTF) (0.5 pages)
- **Why does California need to transform transit?** *Recent transit trends and importance of growing transit* (3 pages)
- **What could this report unlock for California now?** (3 pages)
- **Guiding principles to achieve this vision** *Overview of principles* (1.5 pages)
- **Core strategies and recommendations to achieve this vision**[1] (10-15 pages)
    - **Principle: Improve speed, frequency and reliability**
        - *Transit prioritization to increase frequency and reliability (1.f.1.D)*[1]
        - *Coordinated scheduling, mapping, and wayfinding between transit agencies (1.f.1.B)*[1]
        - *First- and last-mile access to transit (1.f.1.E)*[1]
    - **Principle: Increase density of land-use and housing around high-quality transit corridors**
        - *Changes to land use, housing, and pricing policies that could improve public transit use (1.f.2)*[1]
        - *Potential of transit-oriented development and value capture of property around transit (1.f.7)*[1]
    - **Principle: Improve service experience for all users**
        - *Providing a safe and clean ride for passengers and operators (1.f.1.C)*[1]
        - *Accessibility of transit for all users (Additional topic)*
        - *Service and fare coordination or integration between transit agencies (1.f.1.A)*[1]
    - **Principle: Ensure transit is operationally and financially sustainable**
        - *Strategies to achieve fleet and asset management goals and needs, including ICT (1.f.1.F)*[1]
        - *Strategies to address workforce recruitment, retention, and development challenges (1.f.3)*[1]
        - *Reforming the Transportation Development Act (1.f.4)*[1]
        - *New options for revenue sources (1.f.6)*[1]
        - *Oversight and reporting (1.f.5)*[1]
- **Enablers for implementation** (1 page)
- **Appendix A: Detailed analysis requested under SB125 (1)(e)**[1]
- **Appendix B: Table of all strategies and recommendations under SB125 (1)(f)**[1]

1. Recommendations areas as set out Government Code section 13979.3 Chapter 1 Section (e)-(f)

Source: California State Transportation Agency (CalSTA) RFO #23-02; discussions with CalSTA and Caltrans Dec. 2024 – Jan. 2025

Process for TTTF report

Final new topics discussed at TTTF (Capital construction costs today, Senior/ADA Transit in Sacramento in March)

Additional discussions with the TTTF to finalize strategies and recommendations as needed

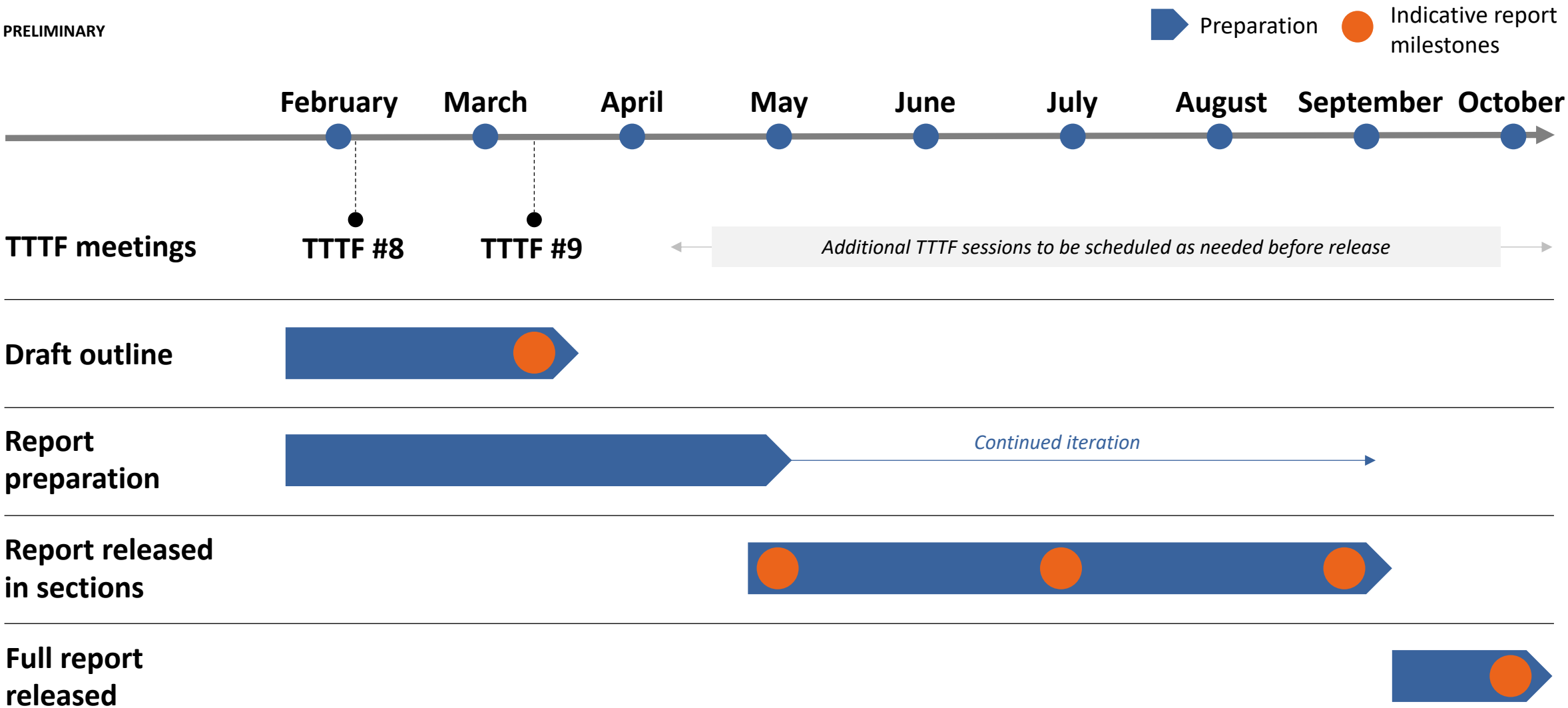
Report content drafted by CalSTA staff, reviewed by TTTF

Report sections released in stages (order and timing to be decided)

Final consolidated report released

Overview of 2025 workplan and timelines

PRELIMINARY



Source: California State Transportation Agency (CalSTA) RFO #23-02; discussions with CalSTA and Caltrans Dec. 2024 – Jan. 2025

Appendix: Status of content and TTTF recommendations[2]

First draft of recommendations discussed; to be refined and brought back as directed by the Task Force

First draft of recommendations to be discussed

Senate Bill 125 requirement[1]	Initial content discussion	TTTF draft recommend-ations review[2]	Additional/ final review
1.f.1a: Service and fare coordination or integration between transit agencies	**TTTF[3] #4**	**TTTF #6**	Concepts brought back for additional discussion as needed in 2025 before final review
1.f.1b: Coordinated scheduling, mapping, and wayfinding between transit agencies	**TTTF #4**	**TTTF #6**	
1.f.1c: Providing a safe and clean ride for passengers and operators	**TTTF #4**	**TTTF #6**	
1.f.1d: Increasing the frequency and reliability through strategies such as the sharing of real-time transit information, service alert data and transit prioritization on roads	**TTTF #4**	**TTTF #5**	
1.f.1e: Strategies to provide first- and last-mile access to transit	**TTTF #6**	**TBD**	
1.f.1f: Strategies to achieve fleet and asset management goals and needs including funding approaches	**TTTF #7**	**TTTF #8**	
1.f.2: Changes to land use, housing, and pricing policies that could improve public transit use	**TTTF #6**	**TTTF #7**	
1.f.3: Strategies to address workforce recruitment, retention, and development challenges	**TTTF #5**	**TTTF #7**	
1.f.4: Reforming the Transportation Development Act such as replacing the fare box recovery ratios and efficiency criteria with performance metrics that better measure transit operations	**TTTF #5**	**TBD**	
1.f.5: Identification of the appropriate state department or agency to be responsible for transit system oversight and reporting	**TTTF #7**	**TTTF #8**	
1.f.6: New options for revenue sources to fund transit operations and capital projects to meet necessary future growth of transit systems for the next 10 years	**TTTF #7**	**Continuing**	
1.f.7: The potential of transit-oriented development and value capture of property around transit stations as a source of sustainable revenue for transit operations	**TTTF #6**	**TTTF #7**	
Additional: Capital construction costs	**TTTF #8**	**TBD**	
Additional: Accessible Transportation, including Paratransit, Dial-a-ride, and transit needs of seniors/ persons with disabilities	**TTTF #9**	**TBD**	

1. Government Code section 13979.3 2. Transit Transformation Task Force recommendations under Government Code section 13979.3 (1)(f)
Source: SB 125 TTTF meeting agendas and approved minutes (link)

Public comment

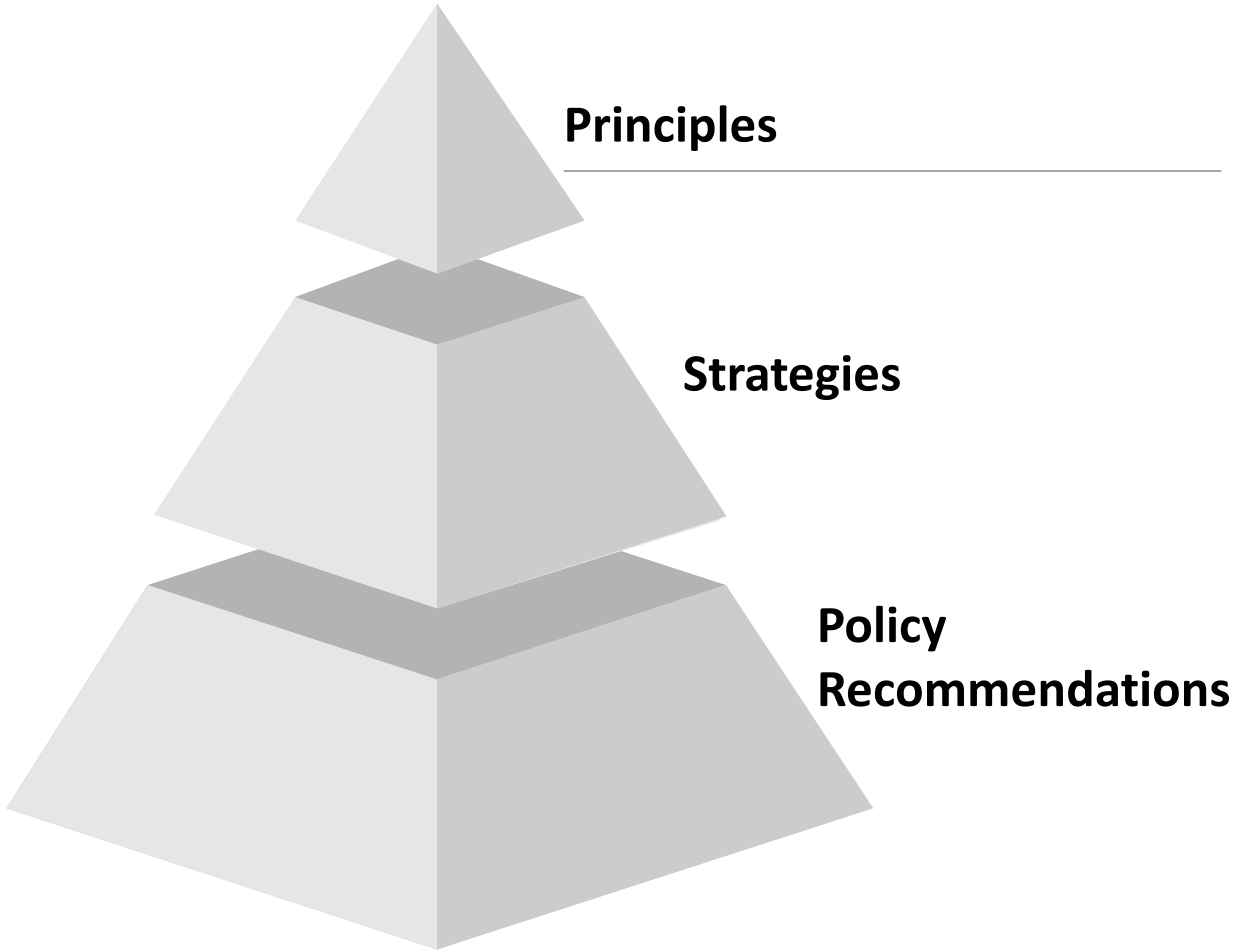
For discussion

- Is there any feedback on the TTTF Draft Report Outline?
- Are there any questions, or suggestions, on the process for releasing the final report?

5. Staff Report on findings and policy recommendations for the report to the Legislature

Strategies and policy recommendations are grouped by principles

Final report will be structured around principles, strategies, and policy recommendations



Principles that guide the strategies and policy recommendations:

"**Transit should be operationally sustainable**" for both:

- Fleet and asset management (1.f.1.F)[1]
- Identification of the appropriate state department or agency to be responsible for transit system oversight and reporting (1.f.5)

1. Government Code section 13979.3

Source: California State Transportation Agency (CalSTA) Transit Transformation Task Force Meeting 8 Staff Report

Draft recommendations on achieving fleet and asset management goals and needs (1.f.1f) (1/3)

Strategies	Staff Report Recommendation based on TTTF / TWG / SME Discussions[1]	
AA **Coordinate with and incentivize manufacturers to collaborate on zero-emission bus and paratransit vehicle fleet**	**AA.1.**	Collaborate on creating and purchasing standardized specifications of zero-emission buses and paratransit vehicles to allow suppliers to scale production. Require cost estimation and standardization inside grant programs
	AA.2.	Incentivize manufacturing zero-emission buses and paratransit vehicles within California and/ or the US through Go-Biz, other agencies
BB **Streamline procurement requirements and timelines**	**BB.1.**	Allow agencies to opt-in to regional or California-wide joint procurement contracts to aggregate demand, and reduce costs for buses, parts, and energy (e.g., with utilities, hydrogen providers), expanding upon DGS' existing procurement
	BB.2.	Authorize grantee agencies to use job order contracting authority to streamline maintenance and reduce project costs, avoiding the need for continuous procurement for routine work
	BB.3.	Expand Master Service Agreements for rolling stock and transit technology purposes to be administered through State of California DGS or CalACT

1. TTTF: Transit Transformation Task Force, TWG: Technical Working Group, SME: Subject Matter Expert identified by CalSTA

Source: California State Transportation Agency (CalSTA) Transit Transformation Task Force Meeting 8 Staff Report

Draft recommendations on achieving fleet and asset management goals and needs (1.f.1f) (2/3)

Strategies	Staff Report Recommendation based on TTTF / TWG / SME Discussions[1]	
CC **Procure or create software and digital tools for asset management**	**CC.1.**	Procure centralized software for asset management tools and predictive maintenance (or adding to California's Software Licensing Program) and make available to all agencies, with their oversight and input
	CC.2.	Create life-cycle cost assessment tools under a similar, shared services model
DD **Encourage shared maintenance and infrastructure support**	**DD.1.**	Consider building out or facilitating the creation of shared facilities at known sites, allow legislatively for easier interagency agreements, procurements, and ownership
	DD.2.	Encourage transit agencies to consider shared training programs (e.g., on vehicle maintenance)
	DD.3.	Allow for co-location for charging and fueling, as an opportunity to partner with schools and Caltrans, and to charge private freight to use charging facilities

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Source: California State Transportation Agency (CalSTA) Transit Transformation Task Force Meeting 8 Staff Report

Draft recommendations on achieving fleet and asset management goals and needs (1.f.1f) (3/3)

Strategies	Staff Report Recommendation based on TTTF / TWG / SME Discussions[1]	
EE **Advise State to provide opt-in technical assistance for asset management capabilities**	**EE.1.**	Develop opt-in statewide capacities to assist transit agencies with project delivery and asset management
	EE.2.	Provide technical assistance for agencies that request it in identifying and prioritizing routes for fleet transitions that are most suitable to either electric or hydrogen buses
FF **Encourage review and discussion of ICT requirements and solutions**	**FF.1.**	Review ICT requirements and provide updated analysis on the costs, benefits and risks of ICT requirements
	FF.2.	Facilitate statewide taskforce or discussion with CARB on ICT rules and regulations, including Buy America requirements and sales tax exemptions
	FF.3.	Working with CARB, operators, others, establish business models to understand operation and eventual mode shift / VMT impacts incurred with ICT. Consider evaluating mode shift propensity inside the ICT framework

1. TTTF: Transit Transformation Task Force, TWG: Technical Working Group, SME: Subject Matter Expert identified by CalSTA

Source: California State Transportation Agency (CalSTA) Transit Transformation Task Force Meeting 8 Staff Report

Draft recommendations on identifying the appropriate state department or agency to be responsible for transit system oversight and reporting (1.f.5) (1/3)

Strategies	Staff Report Recommendation based on TTTF / TWG / SME Discussions[1]	
GG Simplify Granting	GG.1.	Consolidate, standardize, digitize, and streamline State grant applications to reduce administrative requirements and decision and distribution timeline. Allow one State grant application to be used for multiple grant programs or funding types
	GG.2.	Create and maintain a Master Agreement between each applicant agency and the granting agency so that repetitive terms and boilerplate for all grants are in a single document rather than executed ad hoc with each grant
	GG.3.	Encourage consolidation of grant programs across State agencies to reduce duplication
	GG.4.	Organize the grant administration system around the recipient and not around the project so that grantors and recipients can see their historical grants and track their progress
	GG.5.	Create an opt-in capacity for rural and small agencies to receive assistance with grant applications, compliance and reporting requirements, recognizing that they may lack sufficient staff to understand their eligibility, compete effectively or ensure full compliance
	GG.6.	Offer rural and small agencies technical assistance in initiating their projects so that preliminary engineering and project costs are known in advance of applying for funding
	GG.7.	Work towards two- or four-year grants cycles with true-ups to reduce the number of application cycles and associated processes and concentrate efforts on completing projects rather than application and reporting processes

1. TTTF: Transit Transformation Task Force, TWG: Technical Working Group, SME: Subject Matter Expert identified by CalSTA

Source: California State Transportation Agency (CalSTA) Transit Transformation Task Force Meeting 8 Staff Report

Draft recommendations on identifying the appropriate state department or agency to be responsible for transit system oversight and reporting (1.f.5) (1/3)

Strategies	Staff Report Recommendation based on TTTF / TWG / SME Discussions[1]	
HH **Reduce administrative burden**	**HH.1.**	Streamline grant and TDA reporting processes to a single report, determine a single California state agency to manage reporting across all programs, grants, on a unified application. Align this report to information already collected in the NTD reporting process
	HH.2.	Create a statewide, publicly accessible dashboard allowing members of the public and agencies to view the data collected and performance information for each agency
	HH.3.	Reduce the timeline for distribution of funds and allow flexibility / guarantees where possible inside each grant program
	HH.4.	Authorize the sole transit operator within a region to directly receive transit funds allocated to that region under formula programs
	HH.5.	Build capacity at the Statewide level to manage and distribute funds effectively and within clearly defined KPIs and time limits
	HH.6.	Allow the programming and allocation of funds to be combined into a single action by the CTC, rather than bifurcated, to address challenges with timely fund receipt

1. TTTF: Transit Transformation Task Force, TWG: Technical Working Group, SME: Subject Matter Expert identified by CalSTA

Source: California State Transportation Agency (CalSTA) Transit Transformation Task Force Meeting 8 Staff Report

Draft recommendations on identifying the appropriate state department or agency to be responsible for transit system oversight and reporting (1.f.5) (3/3)

Strategies	Staff Report Recommendation based on TTTF / TWG / SME Discussions[1]	
II	**Document and Clarify Process**	**II.1.** Require that any grants that require a hand-off between the grantor and an administrator include complete business rules for the hand-off so that administering agencies have what they need to administer
		II.2. Create, maintain, and publish the business rules for each grant, including eligibility, scoring, grant agreement requirements and compliance
		II.3. Create, maintain, and publish a list of grants and eligibility by customer and/or project type, with reasons for eligibility
		II.4. Create and maintain a grants management system that allows grantees to monitor where they are in the grants process, pre-, during and post-award
		II.5. Notify agencies of eligibility for available grants

1. TTTF: Transit Transformation Task Force, TWG: Technical Working Group, SME: Subject Matter Expert identified by CalSTA

Source: California State Transportation Agency (CalSTA) Transit Transformation Task Force Meeting 8 Staff Report

Public comment

Action items

Approve, deny, or amend initial policy recommendations related to fleet and asset management, and transit system oversight and reporting

6. Additional discussion on options for additional funding, revenue sources, and funding needs / priorities

Please refer to the Staff Report on Funding

Public comment

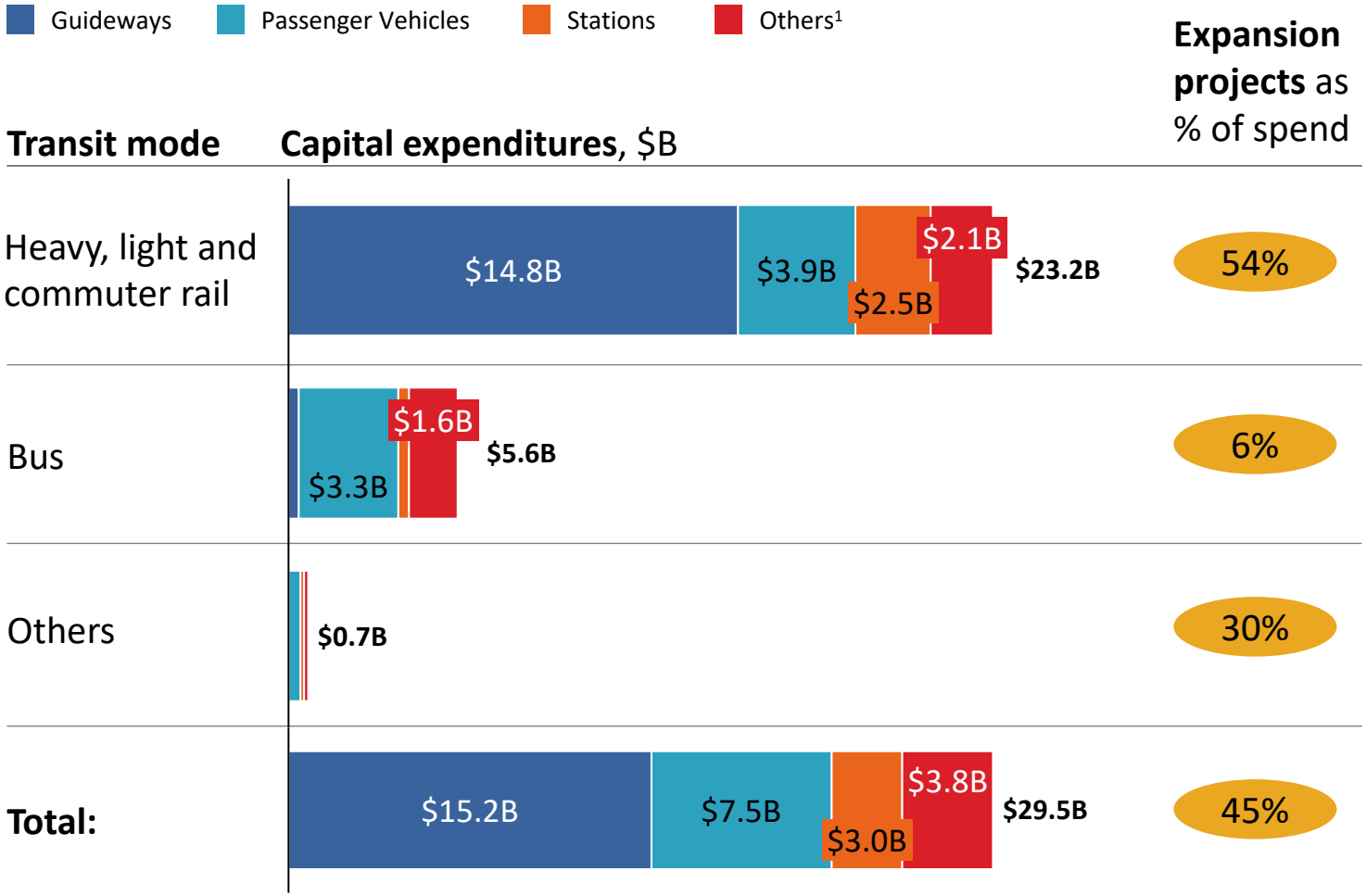
For discussion

- What are options to improve transit agencies' fiscal position in the short, medium and long term?
- What other new revenue sources would the TTTF like to highlight in the final report?

7. Discussion of capital construction costs & timelines

CA transit agencies spent ~$30B between 2018 and 2023 in capital expenditures, with a majority in rail

CA capital expenditure spend of NTD reporting agencies, FY2018-2023



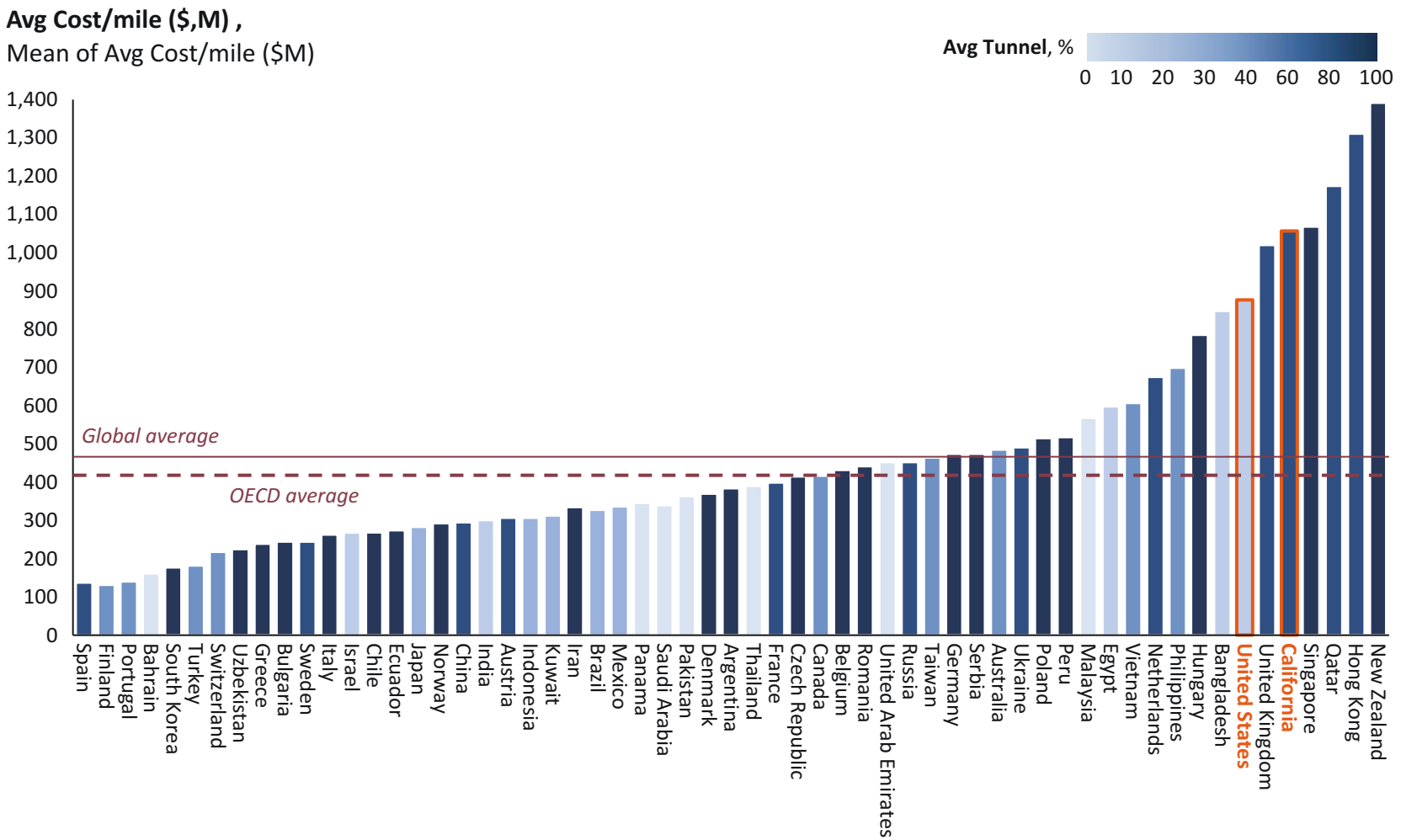
1. Other includes: Administrative Buildings, Maintenance Buildings, Other vehicles, Fare Collection Equipment, Communication Information, Other, Reduced Reporter

Source: National Transit Database

- **Between FY2018-23, transit agencies in California spent ~$30 billion on capital expenditures** , with most capital expenditures going towards building out and maintaining the State's heavy, light and commuter rail systems
  - **Most of this capex was spent on rail (~80% or $23 billion)**, with 64% of that (~$15 billion) spent on guideways
- **Across transit modes, rail has the highest share of capital costs allocated to expansion projects (54%)**, with buses having the lowest (6%); most bus capital costs are allocated to state of good repair work

Costs for transit rail expansion projects in the United States as a whole, and in California, are high relative to projects in other countries

Transit rail capital costs across projects in different geographies, Avg. cost/mile, adjusted for purchasing power[1]



Average **costs in the US are $876M/mile, almost twice as high as the global average** of $456M/mile, despite lower than average tunneling

This **cost premium relative to projects in other countries also exists in California**[1], with costs of $1,056M/mile is higher than the rest of the US

1. Includes heavy and light rail transit projects

Source: Transit costs project (2022)

Potential causes of high capital construction costs identified by SMEs and industry research

Causes identified by SMEs and industry research

Project lifecycle

Design, scoping and planning

Over-scoping design of physical structures relative to peer projects, (e.g., inc. back-of-house space within underground stations in NY's Second Avenue subway Phase 1[1])

Limited standardization of design elements such as escalators, exits and crossovers between stations[1]

Numerous stakeholders often requires coordination that adds cost, time and complexity[2]

Evaluating extractive betterment requirements leading to delays in service and increased cost[2]

Land acquisition and permitting

Multi-year timelines for obtaining land and permits (e.g., 4.5 years for NEPA approval; Council on Environmental Quality guidance suggests it should not take more than a year)[4,5,6]

Litigation can extend timelines, 33% of heavy rail transit projects were litigated between 2010-18[6]

Project delivery and execution

Construction productivity globally has lagged the total economy over the past two decades (0.4% vs. 2.0% CAGR 2000-22)[7]

Low use of incentive-based contracting methods (e.g. not taking account of incentives, risk allocation, strategic sourcing)[2]

Thin marketplace for specialty transit contractors compared to international peers[1]

Identifying and managing utilities especially for underground works (e.g. LA Purple Line extension)[2]

Enablers

Organizational capacity, expertise and coordination

Lack of institutional experience building large and infrequent transit projects[2]

Lack of adequate staff capacity to manage various contractors[8]

Source: 1: Transit Costs Project, 2: Getting Back on Track: Policy Solutions to Improve California Rail Transit Projects; 3. Cost Overruns and Demand Shortfalls in Urban Rail and Other Infrastructure; 4. NEPA Modernization; 5: Competitive Enterprise Institute: Global Infrastructure Permitting, 6: Getting Infrastructure Built: The Law and Economics of Permitting 7: Delivering on construction productivity is no longer optional; 8. Eno Saving Time and Making Cents A Blueprint for Building Transit Better

US and international agencies have reduced capital costs with centralized program management, using in-house experienced labor, and standardized scope and design

BART's Fleet of the Future project was delivered $394 million under budget[1]

- **Over 6 years BART replaced 775 train cars,** with new cars being constructed at a rate of 20 per month, almost double the original contracted rate[1]
- **Project came under by budget by $394 million**, or approximately 15% below the original ~$2.6B original forecast[1]
- **Increased tempo of train car deliveries**, and BART's decision to have **highly experienced staff do engineering work in-house** were two main drivers of cost savings[1]

Madrid built out the Metro at much lower cost than other regions of Europe or the US[2]

- **Spain builds heavy rail at $137M/mile, 15% of the cost of the US ($876M/mile) and lower than other European countries** (Germany $472M/mile, France $398M/mile)[3]
- **Scale matters: Madrid Metro more than doubled its system in 12 years** at low cost through centralized program administration, in-house labor and standardized project scope and design[3]
- The Madrid assembly **accelerated permitting**, and **construction was expedited** with 24-hour, simultaneous boring to complete the project quickly and minimize overall disruption[3]

Sources: 1. BART Fleet of the Future now projected to come under budet; 2. Transit costs project; 3. How Madrid built its metro so cheaply; 4. Efficiency of the Spanish sector in the development of the high-speed railways;

Potential strategies to lower capital construction costs identified by SMEs and industry research (1 of 2)

Strategies identified by SMEs and industry research[1,2]

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Project elements	Potential strategies to reduce capital construction costs
Design, scoping and planning	Form an early stakeholder coalition to build support for the route/design, streamline negotiations, and minimize the risk of costly delay[2]
	Limit design changes once near-final design is chosen[2]
	Conduct surveys early to limit site-specific challenges in route design[2]
	Balance efficiency of using existing rights of way, with project access and ridership goals[2]
	Condition construction funding on cost-per-anticipated-rider criteria[2]
	Allocate state funds for upfront design to avoid costly surprises[2]
	Explore ways to allow for alternative procurement (e.g., CMGC/CMAR[3]) methods statewide[2]
Land acquisition and permitting	Enter agreements with cities and others to clarify expectations before design is finalized[2]
	Grant infrastructure owners (inc. transit agencies) master permitting authority for priority rail projects to reduce delays and costs[2]
	Invest in reducing timelines for permits and approvals[2]
	Continue to streamline permitting requirements within the public right of way

Source: 1: Transit Costs Project, 2: Getting Back on Track: Policy Solutions to **Improve** California Rail Transit Projects; 3. Construction manager/general contractor or construction manager-at-risk

Potential strategies to lower capital construction costs identified by SMEs and industry research (2 of 2)

Strategies identified by SMEs and industry research[1,2]

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Project elements	Potential strategies to reduce capital construction costs
Project delivery and execution	Use line-item procurement to avoid leverage issues with contractors[2]
	Use project delivery structures that are appropriate for the project[2]
	Structure or create state grants to reward transit agencies that use efficient procurement strategies[2]
	Invest Caltrans resources to directly execute transit projects[2]
Organizational design and capabilities	Form regional collaboratives to develop institutional expertise, available for project consultation[2]
	Ensure staff and management capacity matches project scale before bidding[2]
	Hire staff with procurement expertise, delegate authority for non-critical decisions[2]
	Establish megaproject teams to convene all stakeholders
	Fund staff capacity enhancement and extensive advance planning[2]

Source: 1: Transit Costs Project, 2: Getting Back on Track: Policy Solutions to **Improve** California Rail Transit Projects

Public comment

For discussion

- Can California reduce capital construction costs? What measures could be most effective?
- What could the impacts be if this were achieved?

Public comment for items not on the agenda

Next steps

Homework: please provide via the SB125 inbox:

1. Any additional "first pass" topics that the TTTF should cover

2. Feedback you have on today's discussions (funding, capital construction costs) including any recommendations you wish to make on funding?

Please email your responses by 17th February 2025, which will inform the content for the next TTTF meeting 9 scheduled for March 11, 2025, in Sacramento.

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