

2050 Multimodal Long-Range Transportation Plan



Round 2 Stakeholder Meetings
February 3 – 4, 2021

Agenda

- 2050 LRTP Schedule & Status
- Needs Assessment
- Revenue Forecast
- Needs vs. Revenue Gap
- Needs Prioritization, Strategies, Policies, and Portfolios
- Next Steps

2050 LRTP

Work Completed Since October

✓ Website –

✓ State of the System Fact Sheet

✓ Drivers, Trends, and Opportunities
Fact Sheet
including

✓

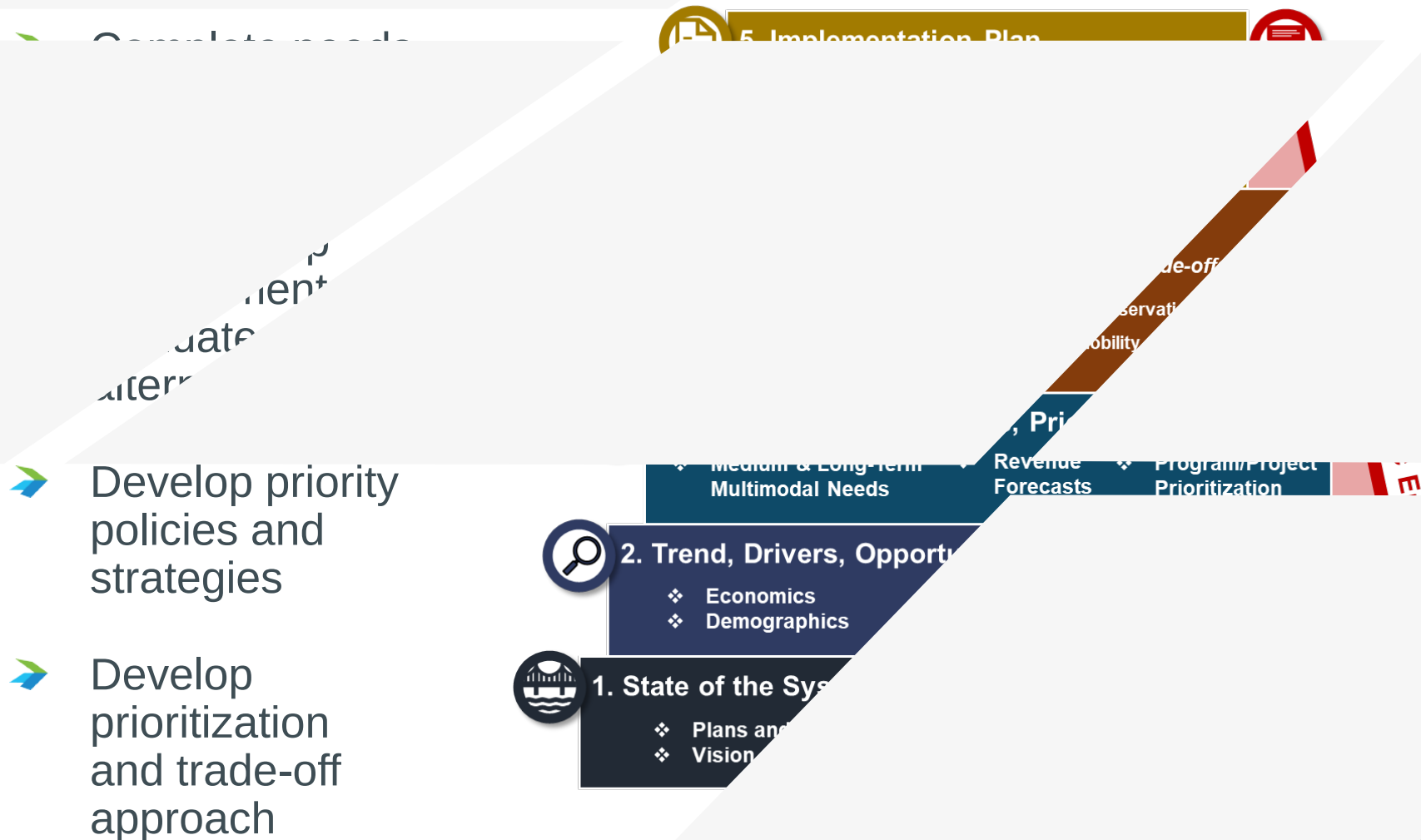
✓ **Interviews with Subject Matter Experts** – input to “ground truth” needs and revenue forecasts

✓ **Stakeholder survey** – perspective from stakeholders and partners

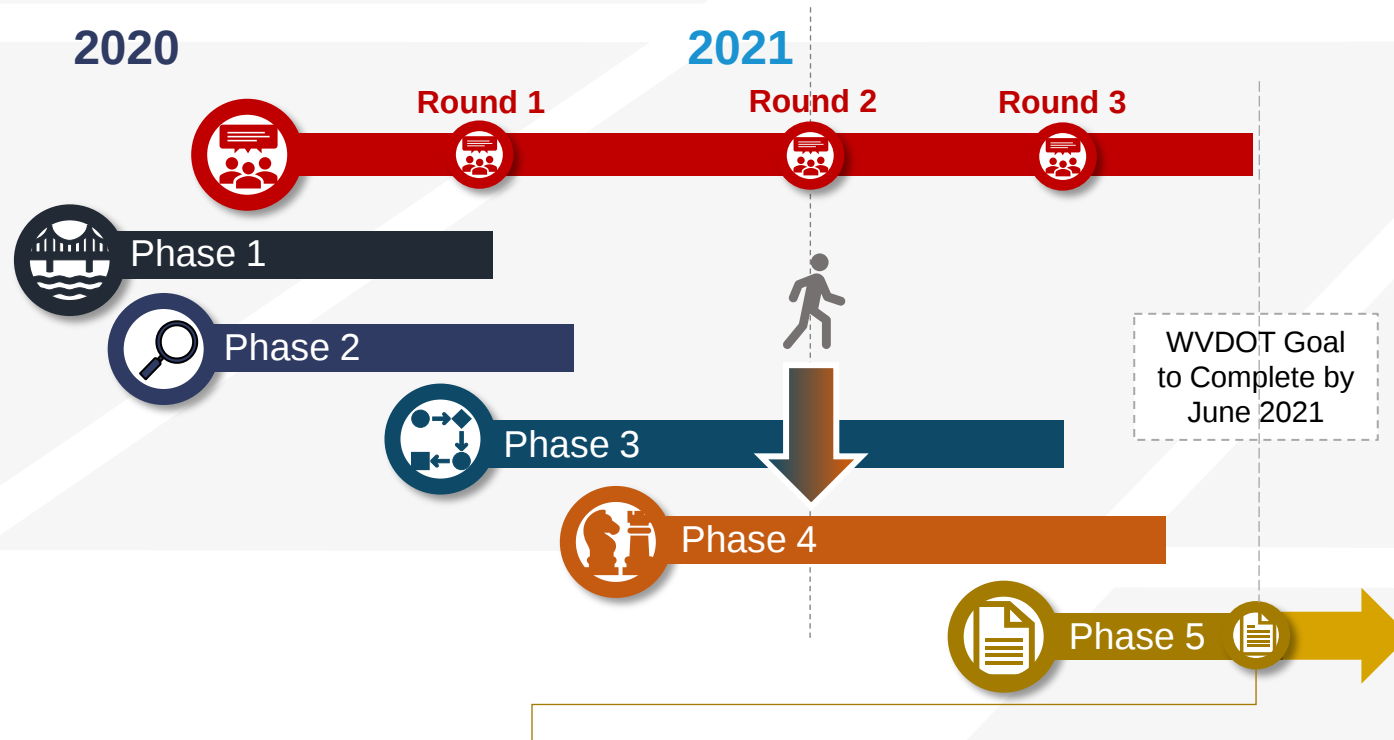


2050 LRTP

Upcoming Milestones



2050 LRTP Plan Schedule



2050 LRTP

Addresses Federal requirements and documents the LRTP process, recommendations, and prioritized strategies and projects

Implementation

WVDOT approach to put the 2050 LRTP into motion

2050 LRTP Engagement

2020

2021



Actions to Date



Round 1



Round 2



Round 3



- » **Round 1 – Stakeholders** – plan approach, state of the system, trends
- » **Round 2 – Stakeholders**– gathering feedback on needs and strategies
 - Announcements – e-mail blast, stakeholder contact list
 - Surveys / Polling – future needs, recommendations
 - Website – home to all LRTP materials
 - Workshops – today (next cycle in April)



How You Can Help...

- » Share and link to LRTP website
- » Send E-mail blasts / surveys to your distribution lists and local partners
- » Social Media Announcements



2050 LRTP Engagement

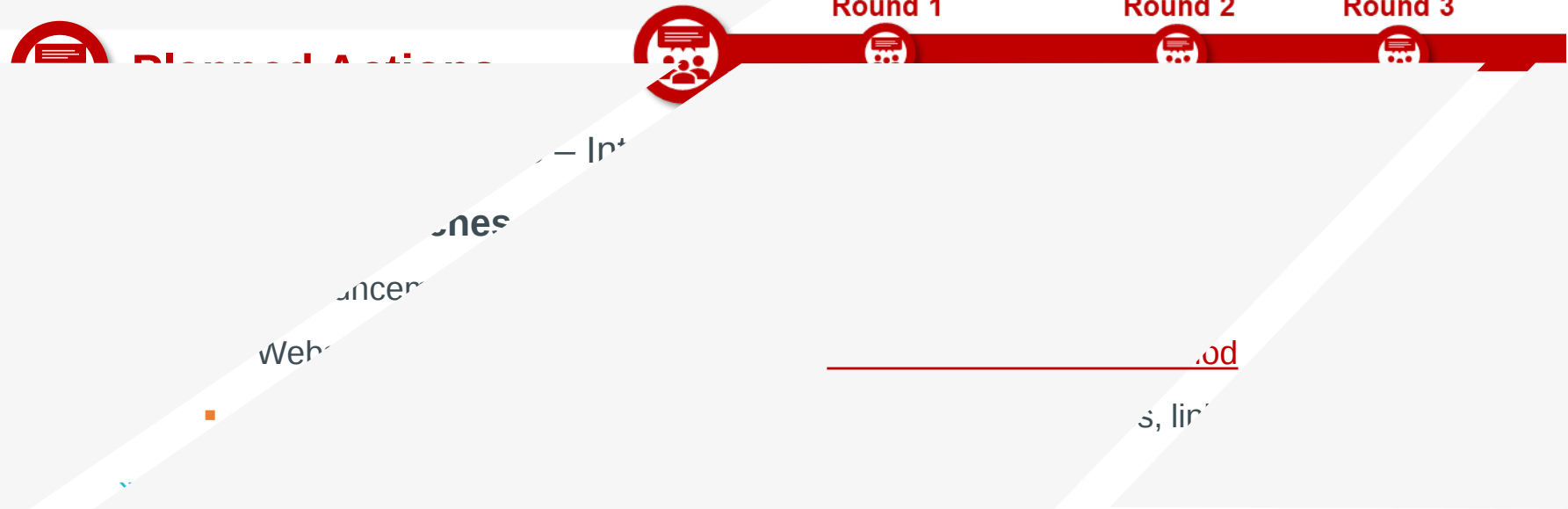
2020

2021

Round 1

Round 2

Round 3



- LRTP Outreach Tour – Research local spring event opportunities
- Open House Public Meeting (and Virtual Public Meeting)



How You Can Help...

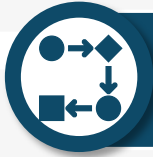
- » Share and link to LRTP website
- » Send E-mail blasts / surveys to your district
- » Social Media Announcements (through



Needs Assessment

2050 LRTP

Overview – How This All Connects



Phase 3 – synthesis to compare future revenues against multimodal needs

NEEDS

define through models, experts, plans, studies

GAPS

Mid- and long-term by system, mode, investment type, goal, or objective

REVENUES

forecast from current investment plans and changing revenue futures and risks

OPTIONS

Test revenue sources

PRIORITIES

- » Short and long term
- » Capital and asset related
- » Partner candidates
- » Decision criteria
- » Performance impacts

TRADE-OFFS

performance outcomes driven by multimodal priorities vs. revenue

PORTFOLIOS

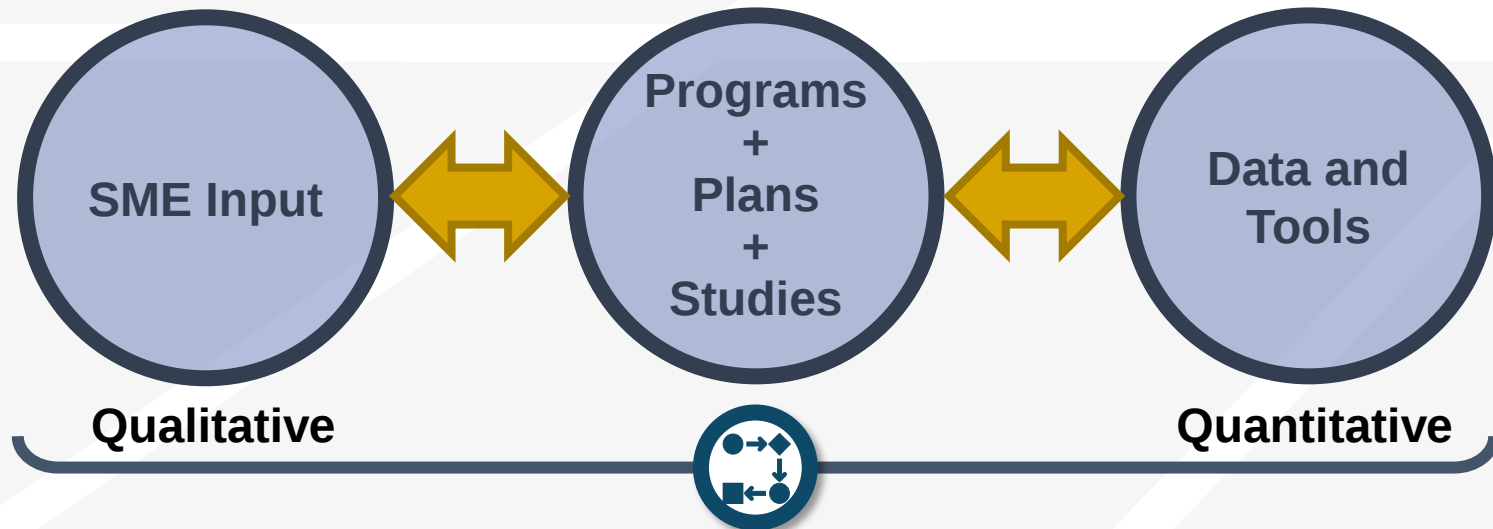
- » Optimized investment levels
- » Prioritized pipeline for future capital programs



Phase 4 – identify most critical policies, programs and projects to meet goals

2050 LRTP

Needs Assessment



- **Groundbreaking** – 1st comprehensive multimodal inventory of long-term transportation needs across West Virginia
- **Representative** – Project-specific & network-based improvement costs; Assets needs derived through scenarios; all values in 2020 \$'s
- **Consistent** – Aligns with 10-year plans; assessment beyond 10 years to sustain performance targets & address user needs
- **Reflects Trends** – Builds from information in the White Papers

2050 LRTP

Needs Assessment – Context

Defining Needs

- » Difference between a “need” and a “want”
- » Driven by values and goals (variable state, regional, local)

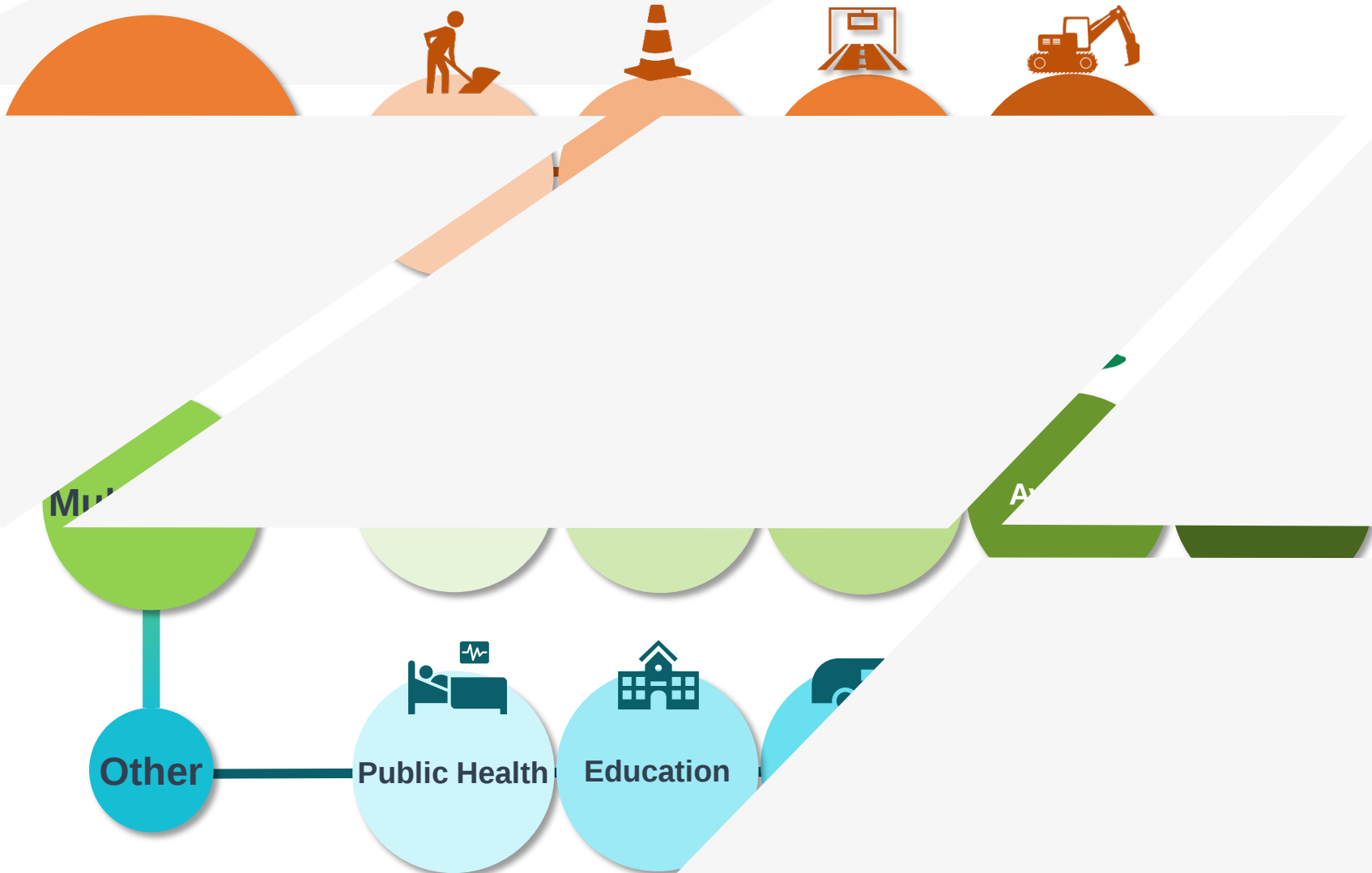
Limitations & Considerations

- » Qualitative vs. Quantitative
- » Plan Driven vs. Expert Insight
- » Changing, Connection to Priority and Policy

Methodology

- » Ranges – Constrained vs. Aspirational
- » Existing Snapshot vs. Uncertainty

Needs Assessment



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Summary of Needs (DRAFT)

Constrained v. Aspirational Influences



Expansion - what is reasonable to deliver by 2050?

Target Setting – what level of asset performance to achieve by 2050?



Gaps – what resources to address rural and urban mobility and enhance site access and intermodal connections by 2050?



Opportunity – what project decisions best align to broader, cross cutting statewide issues by 2050?

Constrained
\$21.3 B

\$19.9 B

\$1.1 B

\$0.3 B

Aspirational

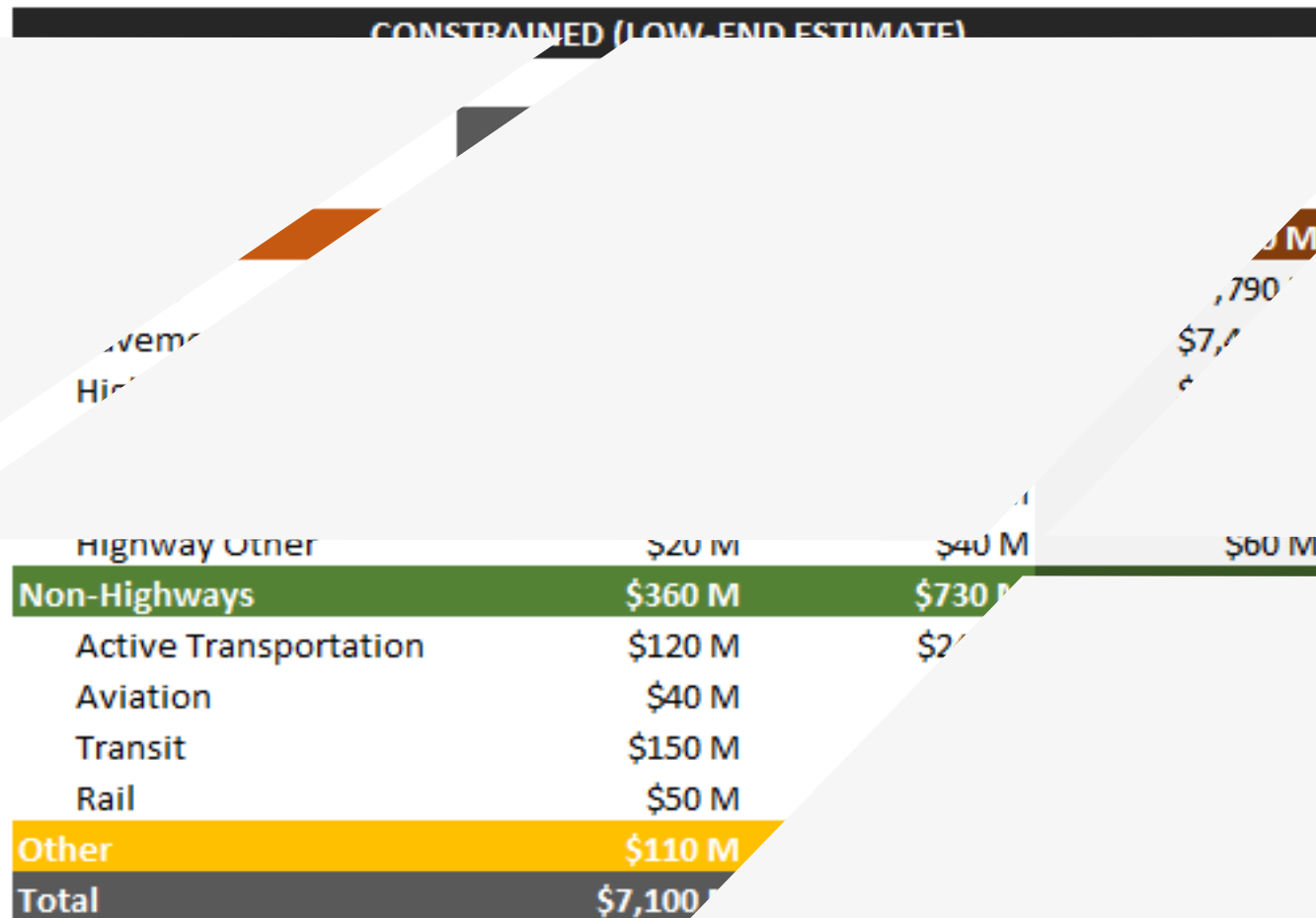
**Up to
\$87 B**

Full accounting of needs from plans and programs regardless of cost of feasibility.

For bridge and pavement, the total funding required to maintain asset condition at 10% poor or better was analyzed

2050 LRTP

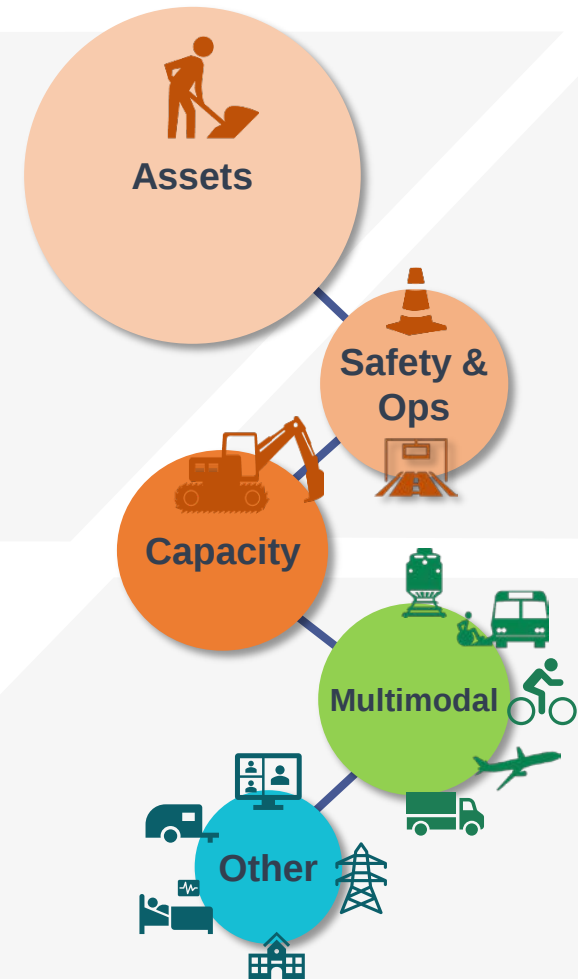
Need Details – Constrained



2050 LRTP

Needs Assessment – Takeaways

- Maintain & modernize highway assets
- Sustain statewide programs (highway operations, tolling, safety)
- Targeted capacity needs
- Address multimodal system gaps, new connections
- Align with public health, economic development, and tourism goals
- Inform future planning

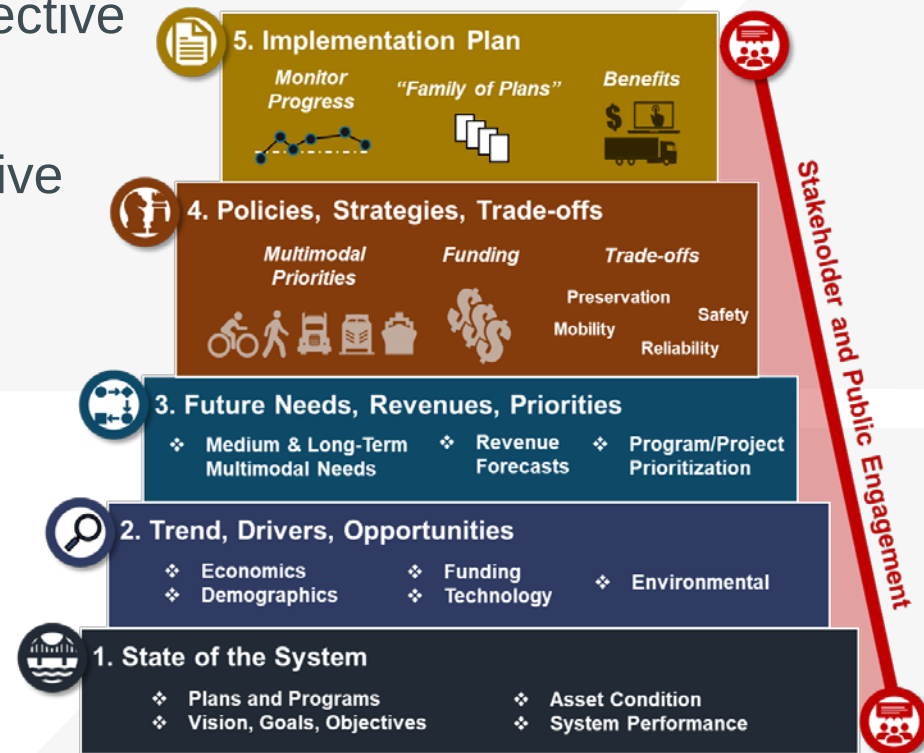


2050 LRTP

Needs Assessment – Next Steps

➤ Establish priorities – **(Phase 4)**

- » Goal and performance perspective
Asset condition & safety
- » Cross-cutting topics perspective
Multimodal & economic
- » Rural or urban perspective
Varying regional values
- » System perspective
Balance and criticality
- » Available resources
Optimize limited resources



Revenue Forecast

2050 LRTP Revenue Forecast

For WVDOT:

- » Forecast total revenues and revenues available for capital investment
- » Support long range financial planning to meet 2050 LRTP goals & objectives

2050 LRTP – DOH Revenue Forecast

Foundation & Existing Conditions –

Identified Revenue & Funding Sources

Construct Revenue Forecast –

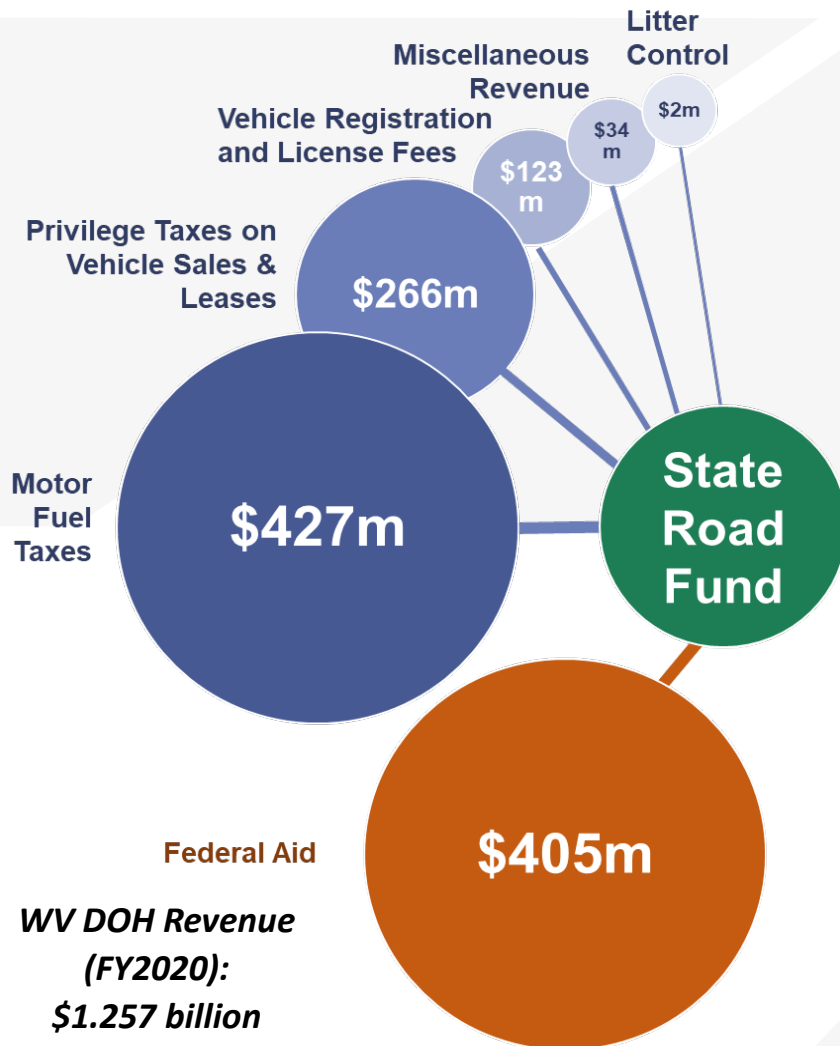
*Historical Conditions + Near-Term Estimates
Build Baseline Run*

Validate Results –

Analyze / Adjust Results

2050 LRTP – DOH Revenue Forecast

Foundation – Non-Tolled Roadway Revenues



Federal Aid – Reimbursements for Federal-aid eligible highway investments and FHWA GARVEE bond debt service

Motor Fuel Taxes – Includes flat rate (\$0.205/gal) + variable rate (\$0.152/gal) based on 5% of average wholesale price)

Privilege Taxes – Applied at time of sale/lease of vehicles registered in state; charged on vehicle net sale price (6% on purchased vehicles, 5% on leased vehicles)

Vehicle Registration and License Fees – Annual fee: \$51.50 registration, \$200 EV fee, \$100 plug-in-hybrid

Miscellaneous and Litter Control – From map and permit sales, tonnage fees, interest earned on investments, and litter control fee

2050 LRTP – DOH Revenue Forecast

WV DOH Input – Determine Growth Factors

- Relied on WV DOH & WV Dept of Revenue to confirm:
 - » Gallons of fuel consumed & taxed by fuel type
 - » Numbers of licenses and vehicle titles and registrations
 - » Historic tax, fee, & toll rates
 - » Escalation methods &/or frequency
 - » Policy or other changes on the horizon

Motor Fuel Taxes = **Motor Excise Tax** + **Motor Carrier Tax**

Motor Fuel Taxes = **\$0.357/gal** + **\$0.205/gal**

Motor Excise Tax = \$0.205/gal gasoline, kerosene, & diesel + \$0.152/gal (variable)

Motor Carrier Tax = \$0.205/gal for gasoline, kerosene, & diesel

2050 LRTP – DOH Revenue Forecast

Constrained Revenues – Illustrate Construction Funds

- ➔ **Constrained Revenues** illustrate total funds available for **Capital Investments** adding future value to the highway system

$$\text{Constrained Revenues} = \text{Annual Revenues}$$

–

Basic Operating Expenses

(Road Maintenance, Admin, & Debt Service)

Excludes: DMV, Claims, Courtesy Patrol, Admin Hearings, and Road Construction

Revenues*
(+)Taxes
<i>Gasoline & Motor Carrier Taxes</i>
<i>Automobile Privilege Taxes</i>
(+)Motor Vehicle Registrations & Licenses
(+)Rev. Transfer to Indust. Access Roads
(+)Federal Aid
(+)Miscellaneous Revenues (incl Litter Control)
Total Revenues
Expenses*
(-)Operating Expenses
Road Maintenance**
Support & Admin***
(-)Debt Service****
Total Road Expenses
Available Revenues (Revenues - Road Expenses)

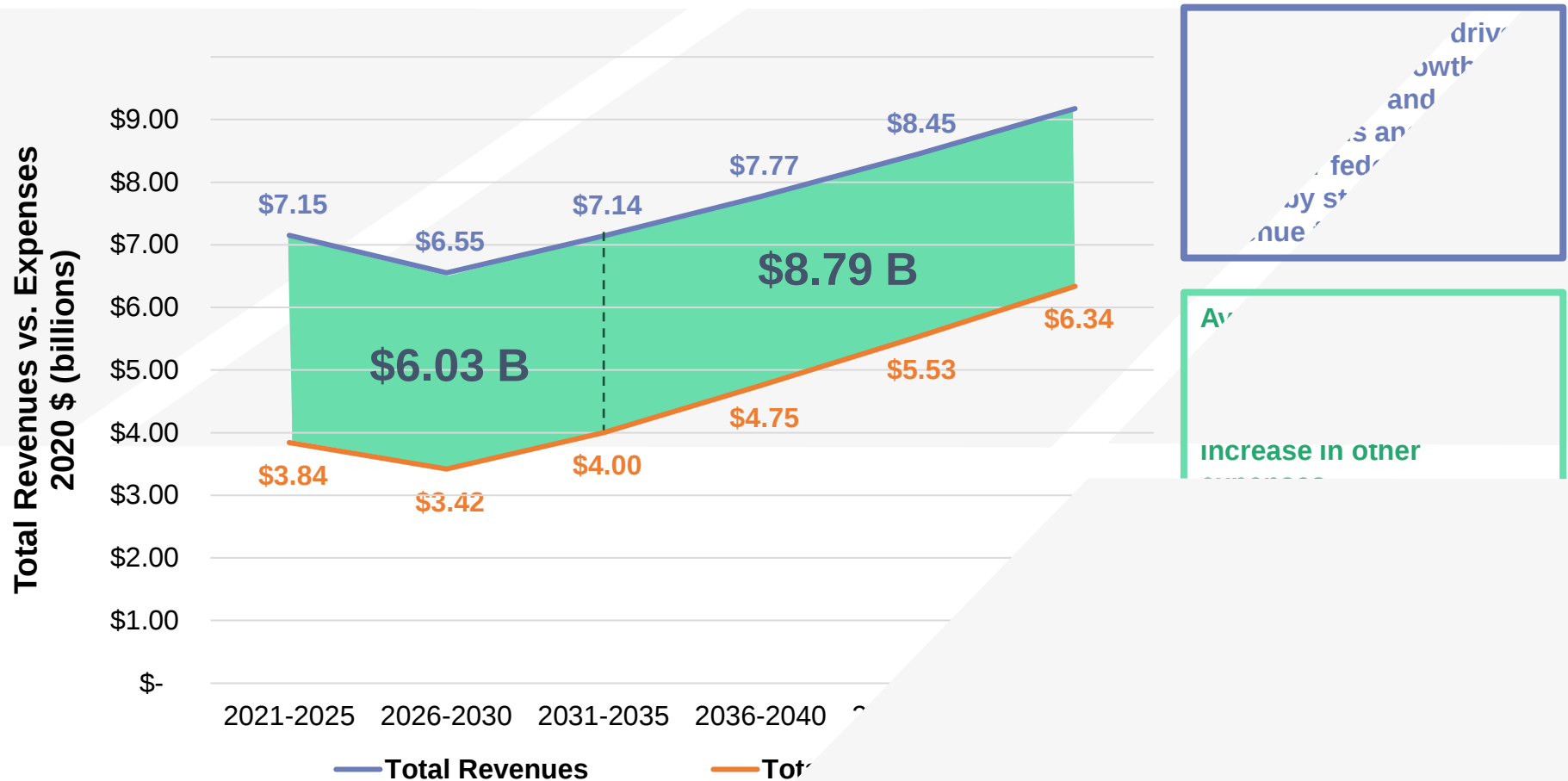
2050 LRTP – DOH Revenue Forecast

Test Assumptions – Forecast Drivers

- Validated & aligned forecast revenue streams with historical revenues & near-term insights
- Population changes are best predictor of future DOH revenue streams
- Forecasts developed for alternative future population scenarios
- Used 2% discount rate to bring future revenue values to 2020\$ for comparison to needs which are in 2020\$

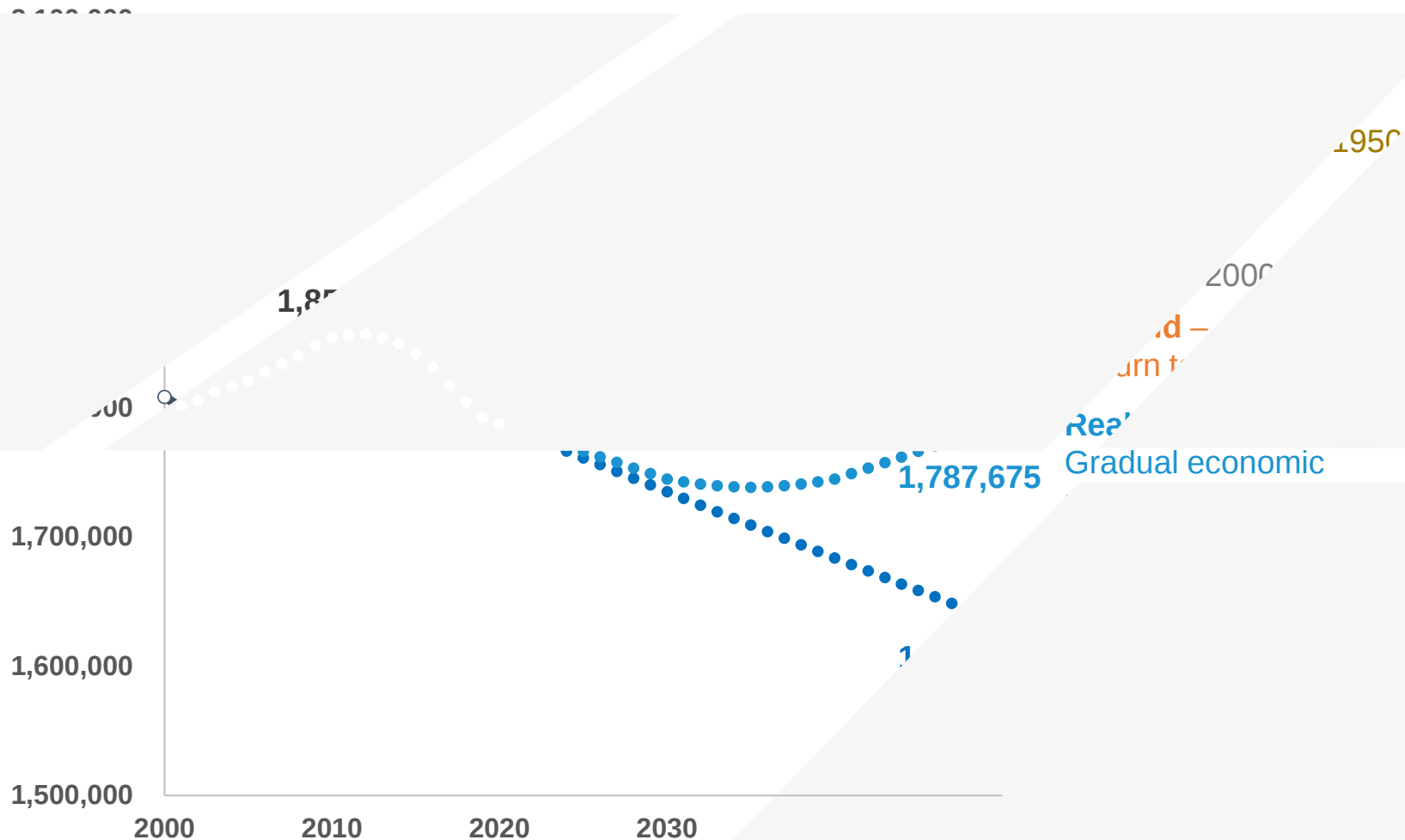
2050 LRTP – DOH Revenue Forecast

Baseline Forecast Results – DRAFT Revenues vs. Expenses



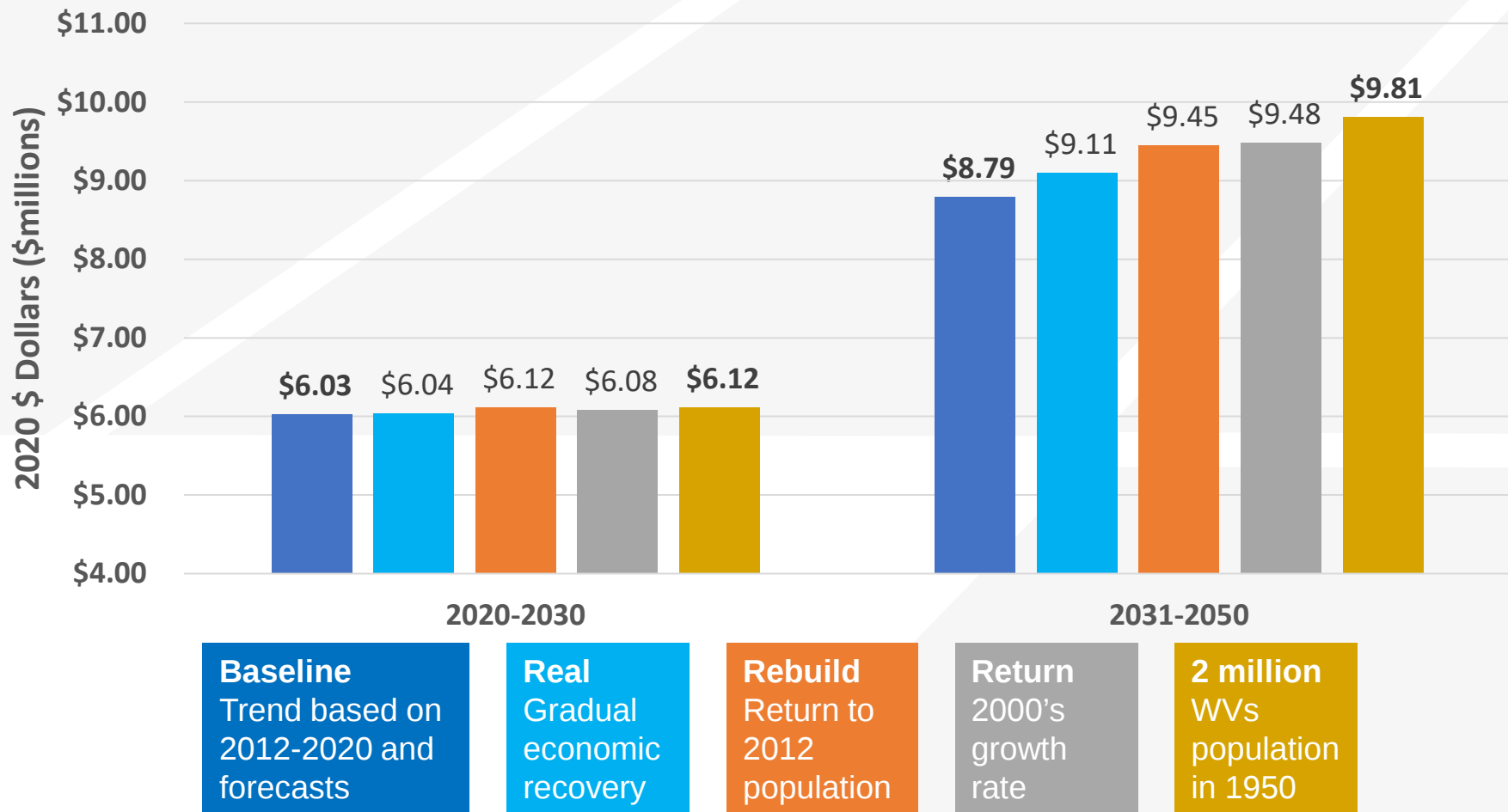
2050 LRTP – Forecast Alternatives

Validate Results – Test Population Alternatives



2050 LRTP – Forecast Alternatives

Validate Results – Draft Revenue Results



2050 LRTP

Revenue Forecast Discussion

Operating expenses
continue to increase

Existing debt
service burden
through 2040s

» Alternative user-based fee sources

» Flexibility and le

➤ Revenue for

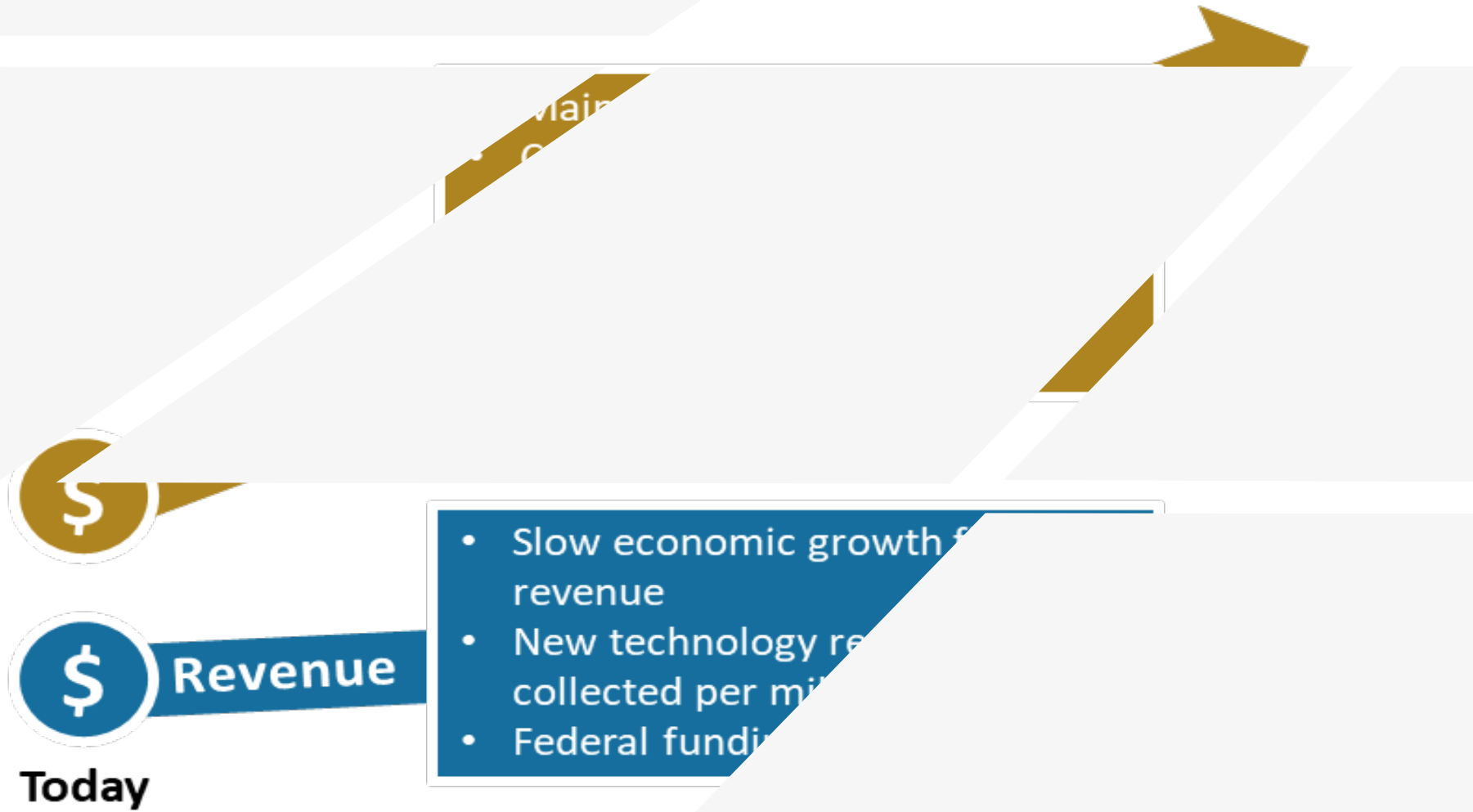
» Value to

» Val

Needs vs. Revenue Gap

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Needs vs. Revenues



2050 LRTP

Needs vs. Revenues

Needs

Policy/priority questions

- » Short vs long term performance relative to goals
- » Immediate priorities – bridge condition, secondary roads
- » Rural connectivity and mobility
- » Prepare for technology and other industry changes
- » Economic development

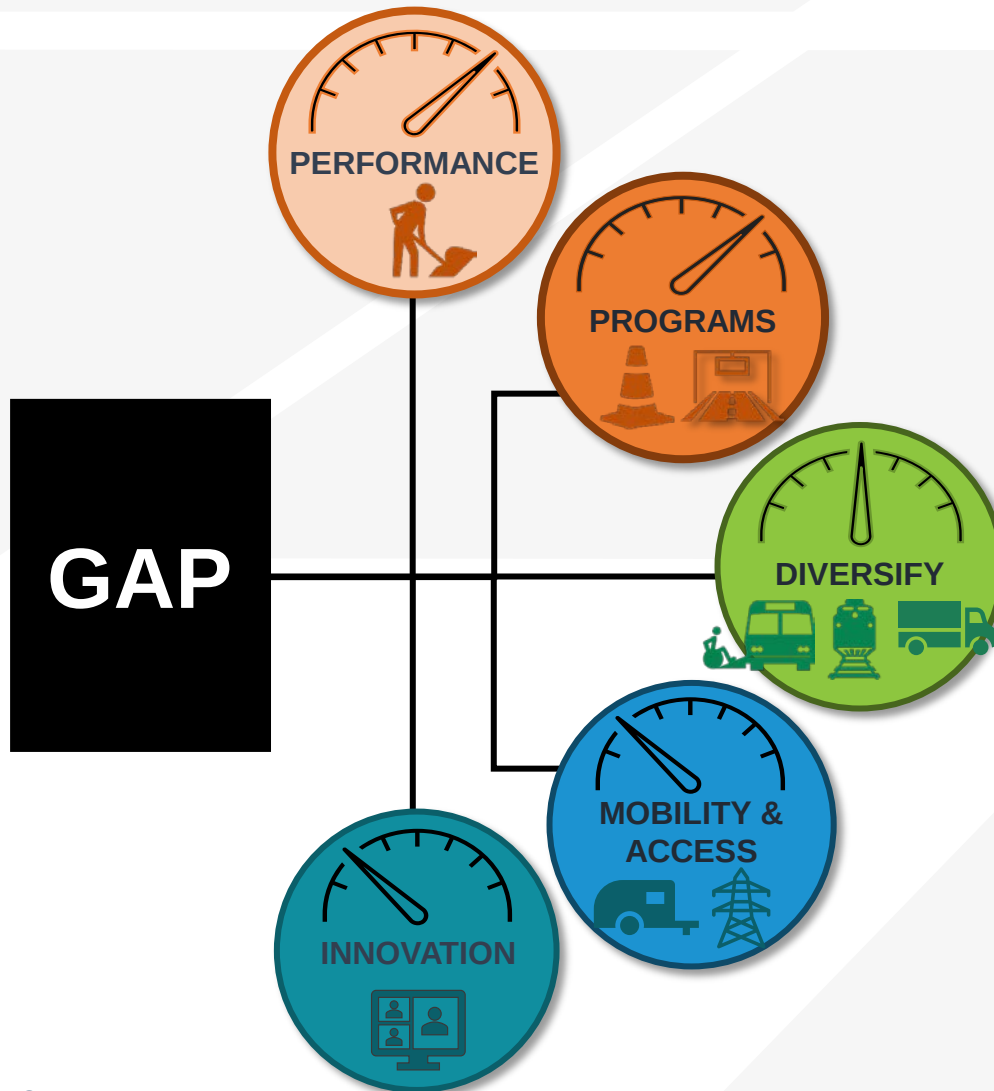
Revenue

WV and Federal direction

- » Federal uncertainty
- » Declining return from traditional sources, cost increases
- » Limited bonding capacity
- » More
- »

2050 LRTP

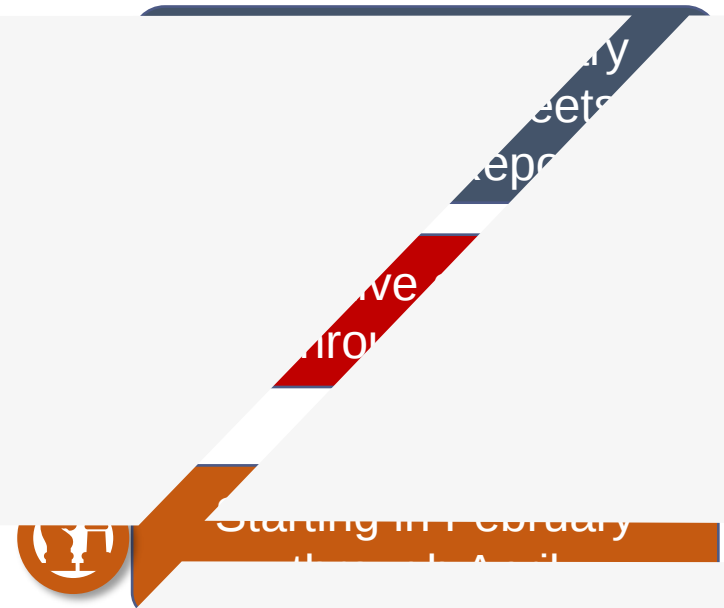
Gap Discussion



What **criteria** should **define highest priority investments**?

What is the **optimal** mix of investment (portfolios) among **highest priorities** to address the gap?

Different approach for **Short vs. Long Term**?

 Prepare for Meeting #3 where we will discuss your perspectives on the optimal long term multimodal investment strategy

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