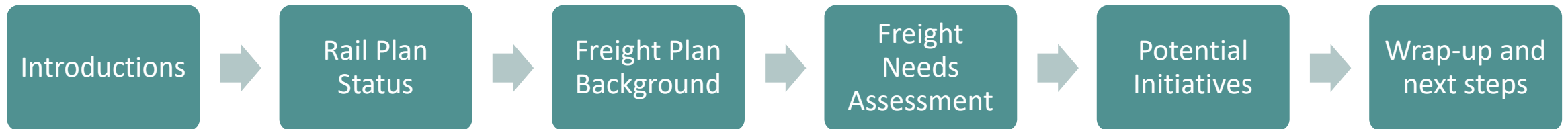




Vermont Freight Plan Update

Freight Plan Advisory Committee (FPAC) Meeting #2
– June 9, 2021

FPAC Meeting Agenda

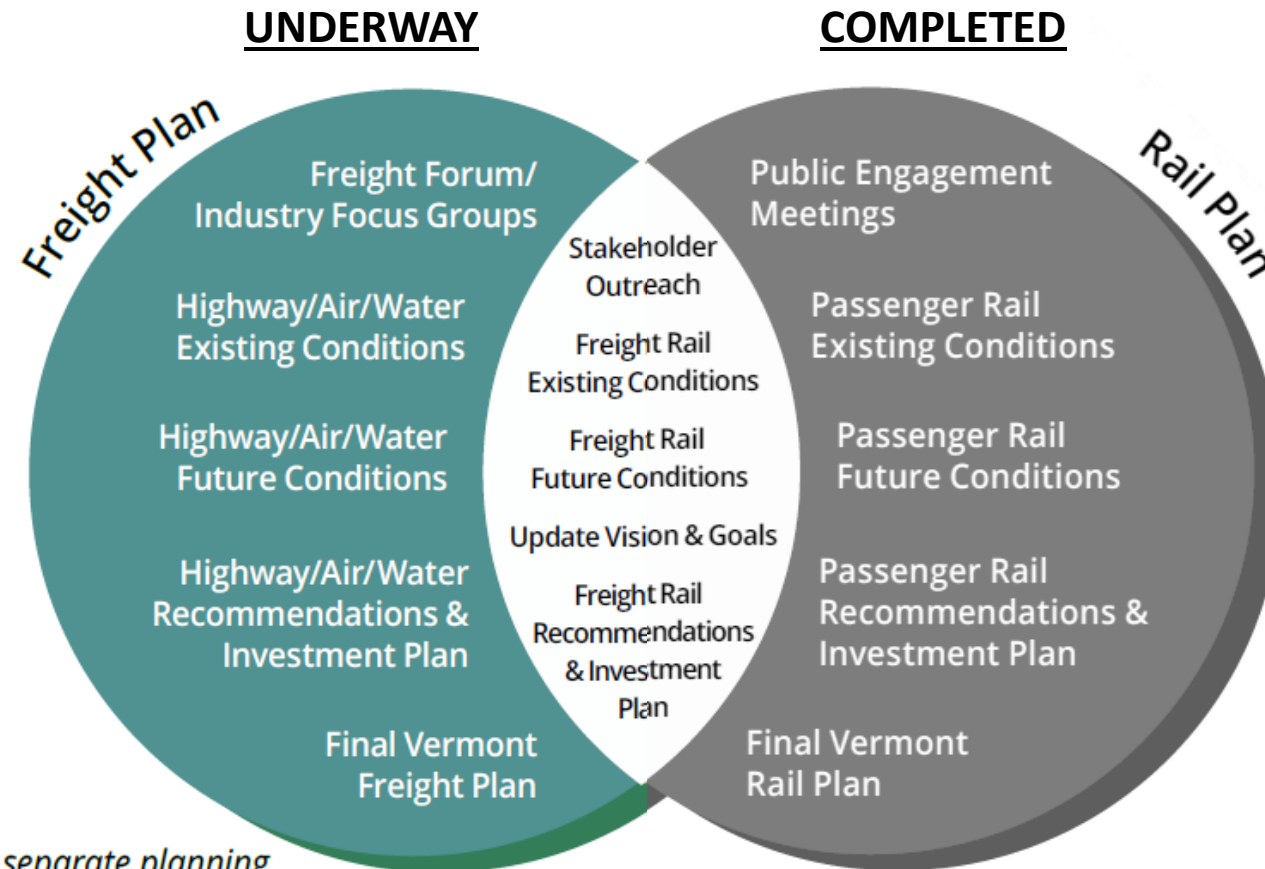


Introductions

- Name
- Affiliation



Freight Plan & Rail Plan Overlaps



Although two separate planning efforts, the Freight and Rail Plans share common tasks and work products.

Rail Plan Update



- Rail Plan Update has been completed (under FRA review)
- Website has all final materials:
 - Plan Document
 - Executive Summary
 - Tech memos (appendices)
 - GHG memo
 - And more
 - <https://vtrans.vermont.gov/rail/reports>

Vermont Freight Plan Update Overview



Vermont Freight Plan Background



- Good planning and follow-through makes for an efficient freight system for Vermont
- FHWA requires a State Freight Plan every five years in order to obligate Freight Formula funds
- State Freight Plans must include:
 - Freight trends, needs, and issues
 - Freight policies, strategies and performance measures
 - How innovative technologies are being considered
 - Congestion, delay, mobility, and deterioration issues (if applicable);
 - Freight Investment Plan;
 - Engage stakeholders and Freight Plan Advisory Committee

Additional Information on Web Page

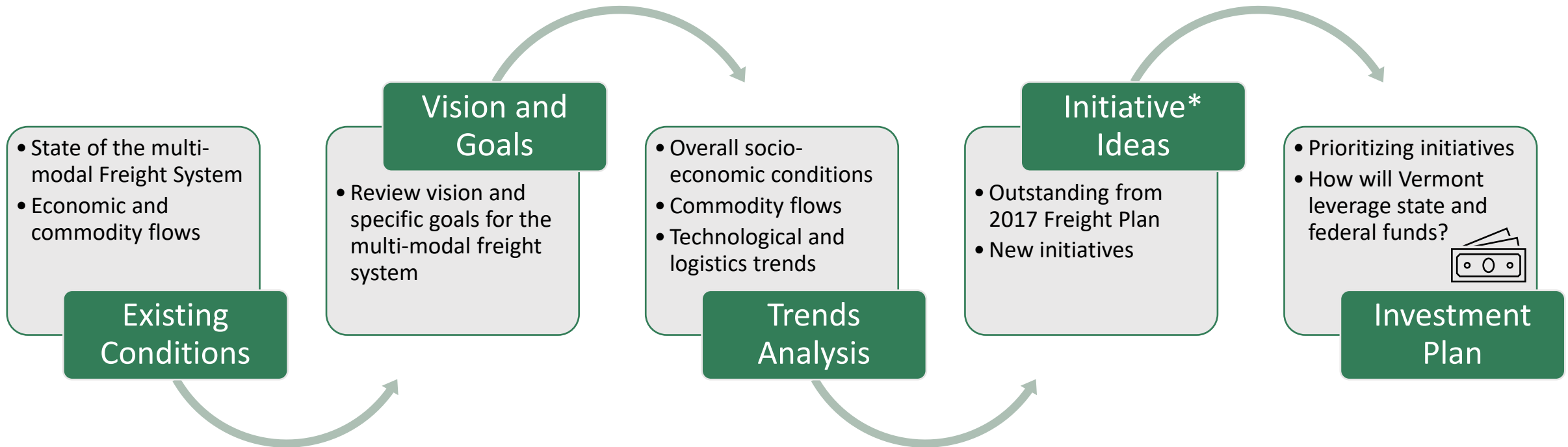


- Newsletters
- Data Trends Summaries
- Technical memoranda
- Meeting presentations
- Online map with information and feedback tool

Freight Plan Web Page:

<https://vtrans.vermont.gov/planning/freight>

Freight Plan Elements

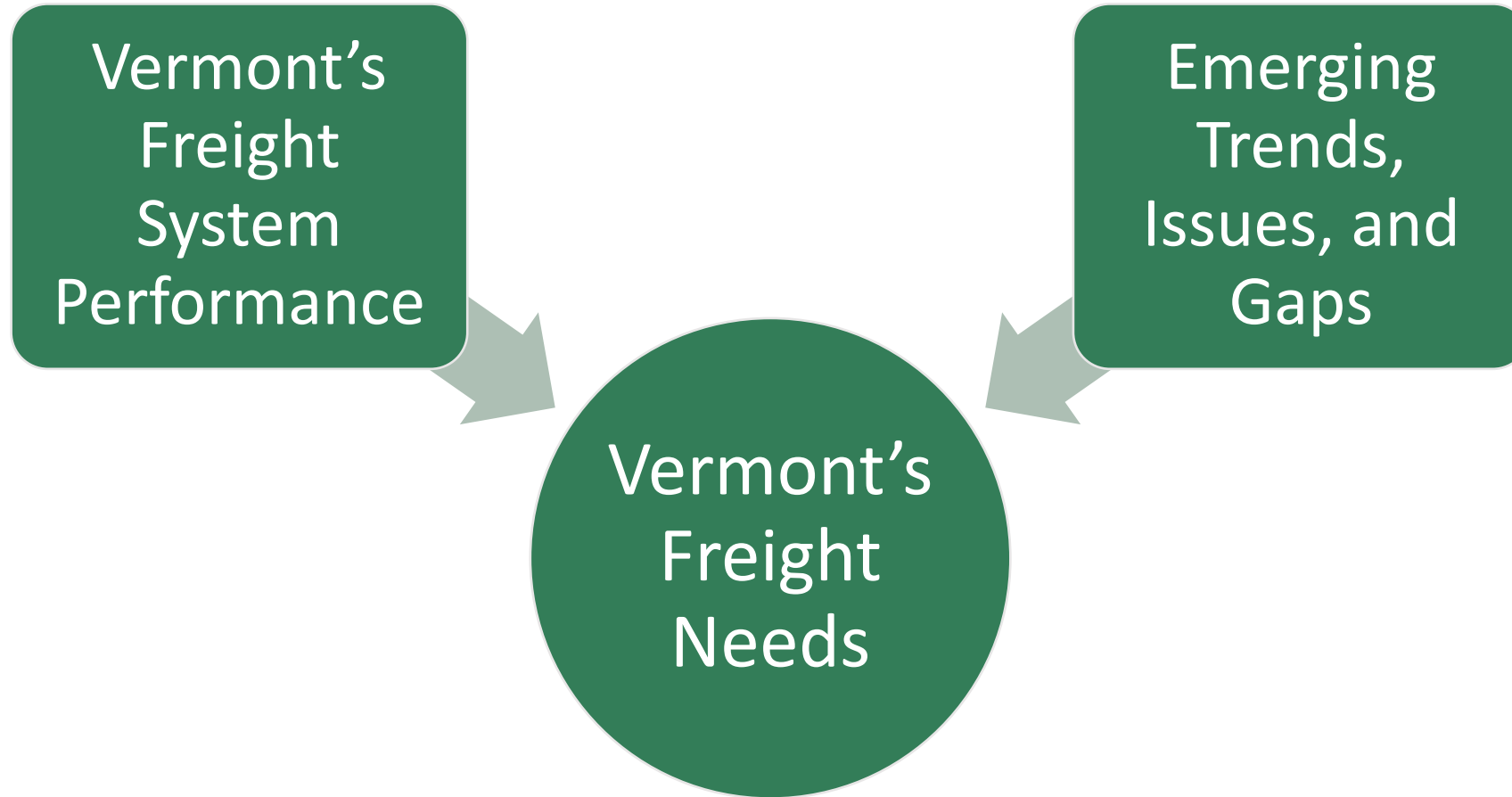


***Initiatives** can be projects, but also policy initiatives, improved coordination, etc. that address freight needs. These operational and policy initiatives are particularly important given limited funding.

Freight Needs Assessment



Components of the Needs Assessment

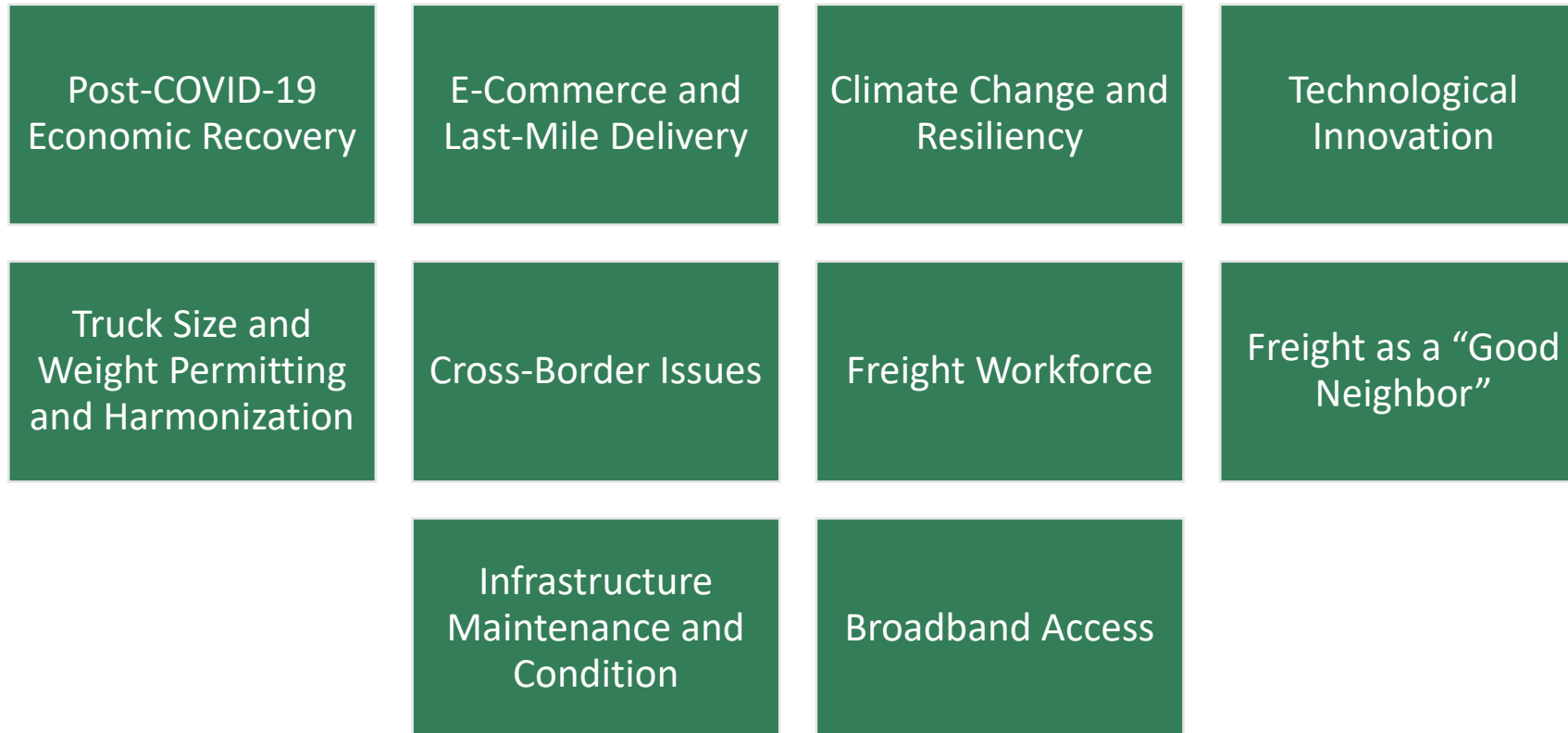


Vermont's Freight System Performance



Category	Mode	Measure	Status/Trend
Freight and Overall System Performance	Multi-Modal	Gross State Product	Steady-to-Declining
	Multi-Modal	Freight demand (by tons and value of goods)	Steady
	Multi-Modal	Stakeholder outreach and communications	Being met
	Rail	Number of businesses using rail	Steady
	Rail	Percent of Vermont within 100 miles of a transload facility	Steady
	Rail	Percent of Vermont within 100 miles of an intermodal terminal	Steady
	Air	Number of airports served by overnight carriers	Steady
Infrastructure Performance - State of Good Repair	Highway	Pavement condition	Improving
	Highway	Bridge condition	Improving
	Rail	Bridges meeting 263,000-pound standard*	Improving
	Rail	Bridges meeting 286,000-pound standard*	Improving
	Rail	Rehabilitate and upgrade rail crossings*	Improving
	Rail	115-pound rail*	Improving
	Rail	Vertical clearances*	Steady
	Alr	Runway conditions, adequacy for current operations	Steady
Travel Time and Reliability	Highway	Truck Travel Time and Reliability (TTTR)	Steady
U.S.-Canada Border Crossing Delays	Highway	Border Wait Times	No trend
	Rail	Border Wait Times	No trend
Hazardous Materials	Highway	HAZMAT Incidents	Steady
	Rail	HAZMAT Incidents	Steady
Truck-Involved Crashes	Highway	Truck-Involved Crashes	Steady

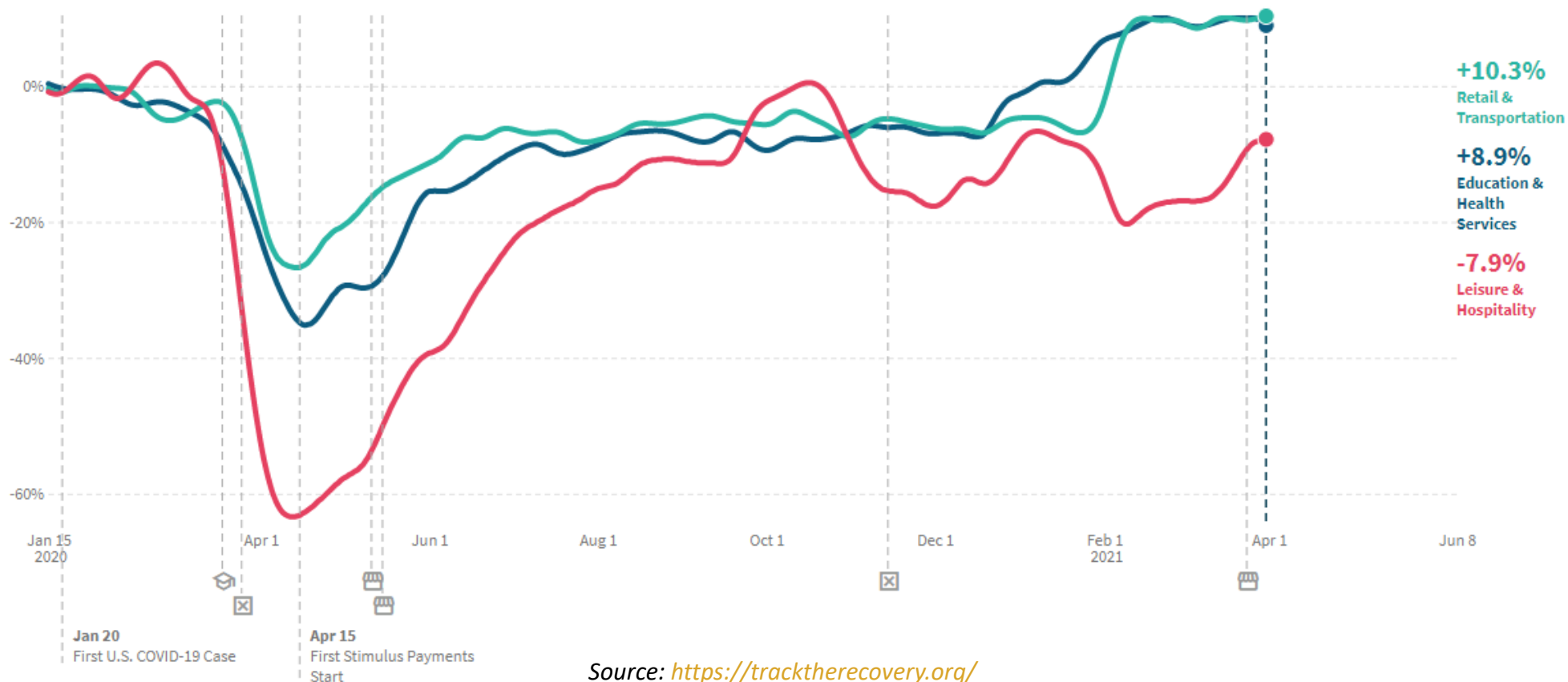
Key Trends and Issues



Post-COVID-19 Economic Recovery

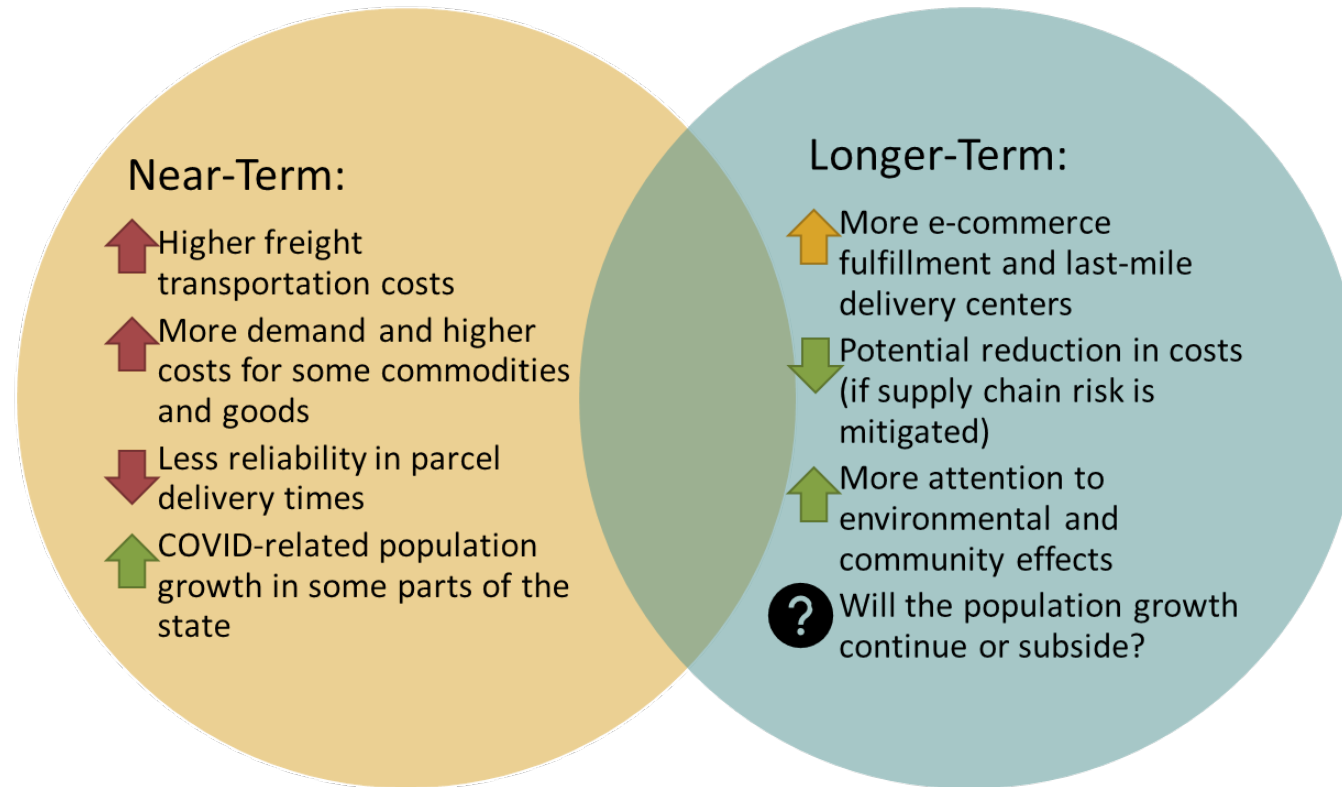


Percent Change in Vermont Employment by Industry Sector, January 15, 2020 through April 1, 2021



Source: <https://tracktherecovery.org/>

Post-COVID-19 Economic Recovery

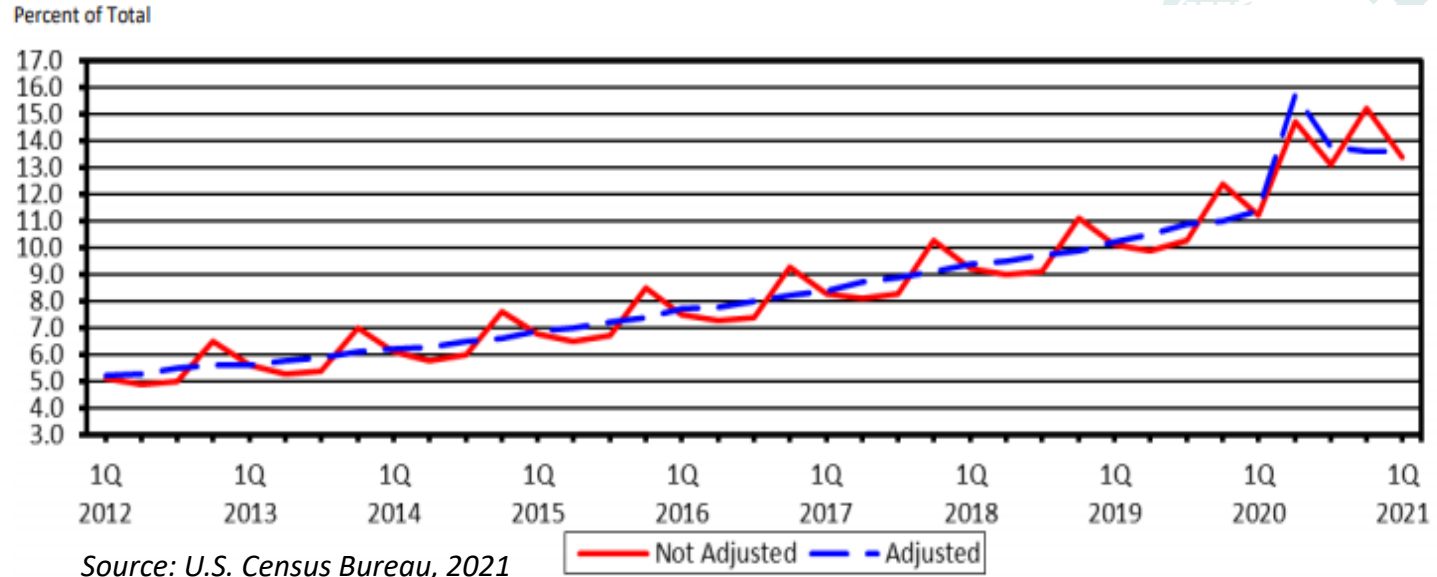


NEED: Monitor trends and develop more advanced modeling and forecasting capabilities in order to anticipate the potential effects of various future scenarios on freight demand in the state

E-Commerce and Last-Mile Delivery

- E-Commerce demand growing
- Stress on consumer product supply chains and parcel delivery
- Fulfillment center and delivery station development near consumers
- Concerns about emissions and climate effects

E-Commerce Sales as a Percent of Total Retail Sales, 2012-2021



Source: U.S. Census Bureau, 2021

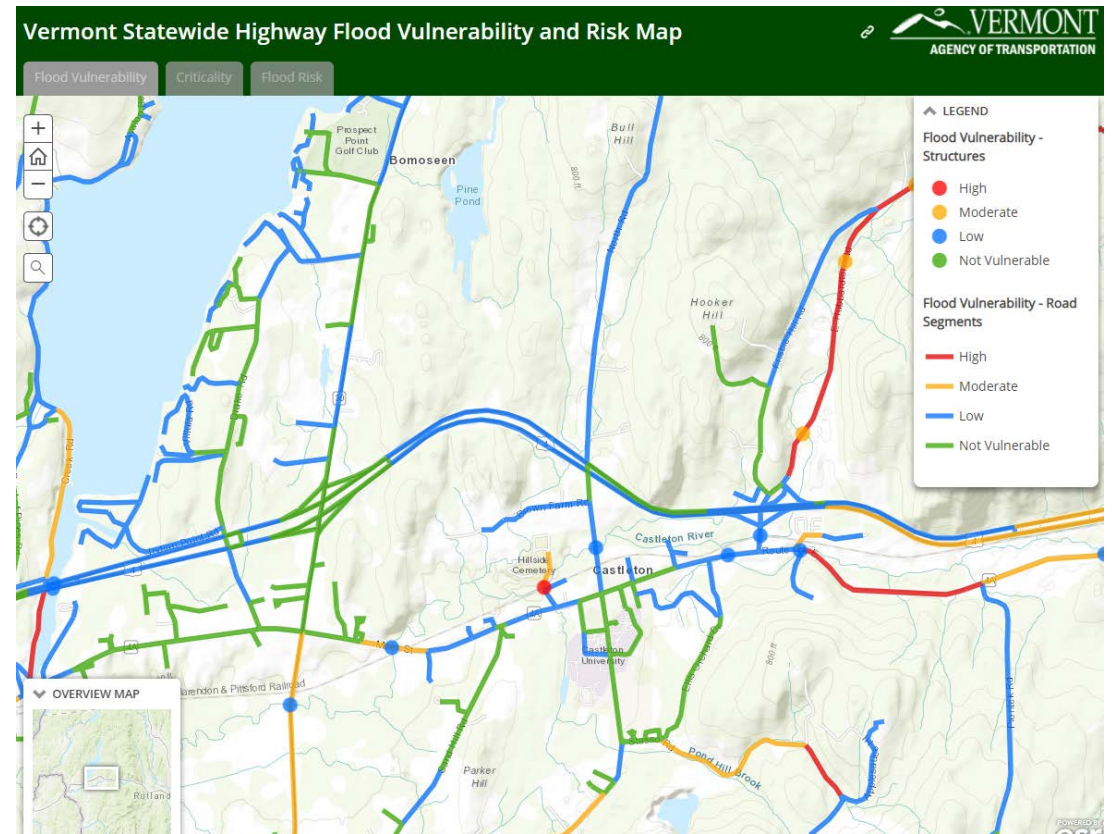


NEED: Acquire data and estimate the potential effects of deliveries on highways, emissions, and the economy

Climate Change and Resiliency

- Emissions
 - Technological innovations in each mode
 - More conscious consumer behavior
- Infrastructure Resiliency
 - Vermont TRPT for roads and bridges (wrapping up), rail forthcoming
 - Strategies to mitigate risk

NEED: Support initiatives to reduce GHG emissions, and identify/harden vulnerable freight infrastructure



<https://vtrans.vermont.gov/planning/transportation-resilience/statewide>

Technological Innovation



- Alternative fuel and propulsion technologies
- Connected and autonomous vehicles
- Autonomous delivery technologies
- Logistics data and information



Source: BETA Technologies

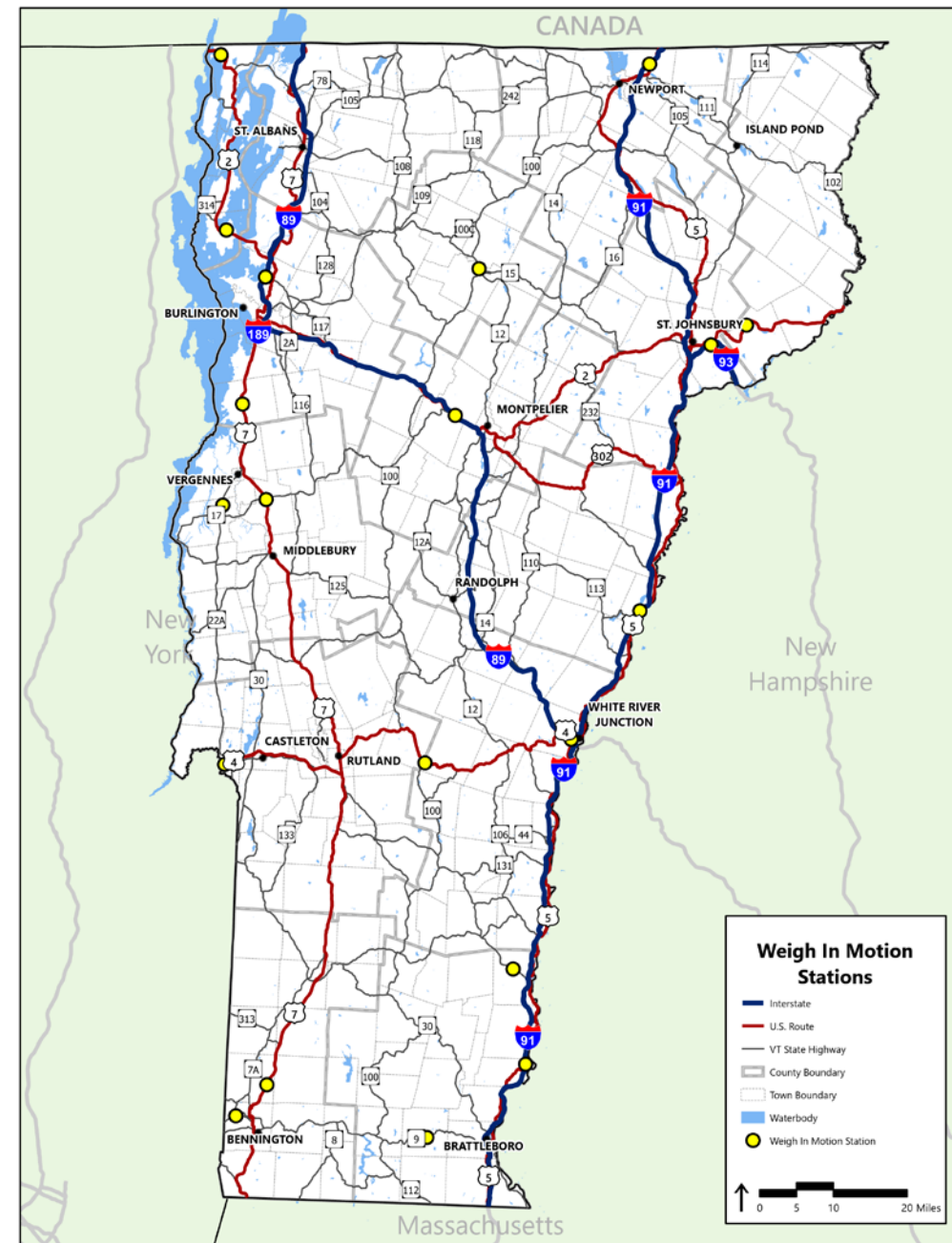


Source: Washington Post

NEED: Anticipate the development and deployment of technological innovations, & partner with innovators

Intelligent Transportation Systems (ITS)

- VTrans ITS Plan underway
- 1st Virtual WIM in Williston
- Integrated Corridor Management (I-89 and other corridors)
- Upgrades to online permitting system underway
- 511VT and Road Weather Information System



Truck Size and Weight Permitting Harmonization



- Vermont's size/weight limits are **similar to neighboring states**
- New England Transportation Consortium permitting
 - New York State is not a member

NEED: Consider talks with New York to join NETC or otherwise streamline permitting for trips between VT and NY

STATE	NON-INTERSTATE			INTERSTATE		COMMODITY EXEMPTIONS	NOTES
	SINGLE AXLE WEIGHT	TANDEM AXLE WEIGHT	OTHER SPECIFICATIONS	SINGLE AXLE WEIGHT	TANDEM AXLE WEIGHT		
Vermont	22,400	36,000	600 lbs per inch of tire width	20,000	34,000	Milk (up to 90,000 lbs)	Federal pilot program allows up to 99,000 lbs.;
New Hampshire	22,400	36,000	99,000 lbs GVW on non-interstate highways	20,000	34,000	None	Higher weight limit (99,000) on some grandfathered routes (89, 93, 95)
New York	22,400	36,000	800 lbs per inch of tire width	20,000	34,000	None	Some special rules on NYS Thruway
Massachusetts	22,400 (if axles are more than 6ft apart)	34,000	800 lbs per inch of tire width	20,000	34,000	Construction materials, bulk feed, liquid petroleum, refuse	Different (higher) limits on Mass Pike
Maine	22,400	38,000	600 lbs per inch of tire width	20,000	34,000	Potatoes, forest products, raw ore	Pilot-Program for Canadian Weight Limit Access from Calais to Baileyville

Cross-Border Issues



- Congestion expected, associated with construction projects
- VTrans coordinating with agencies and stakeholders in U.S. and Canada



NEED: Continue coordinating activities among stakeholders, and undertake mitigating actions, if/as needed

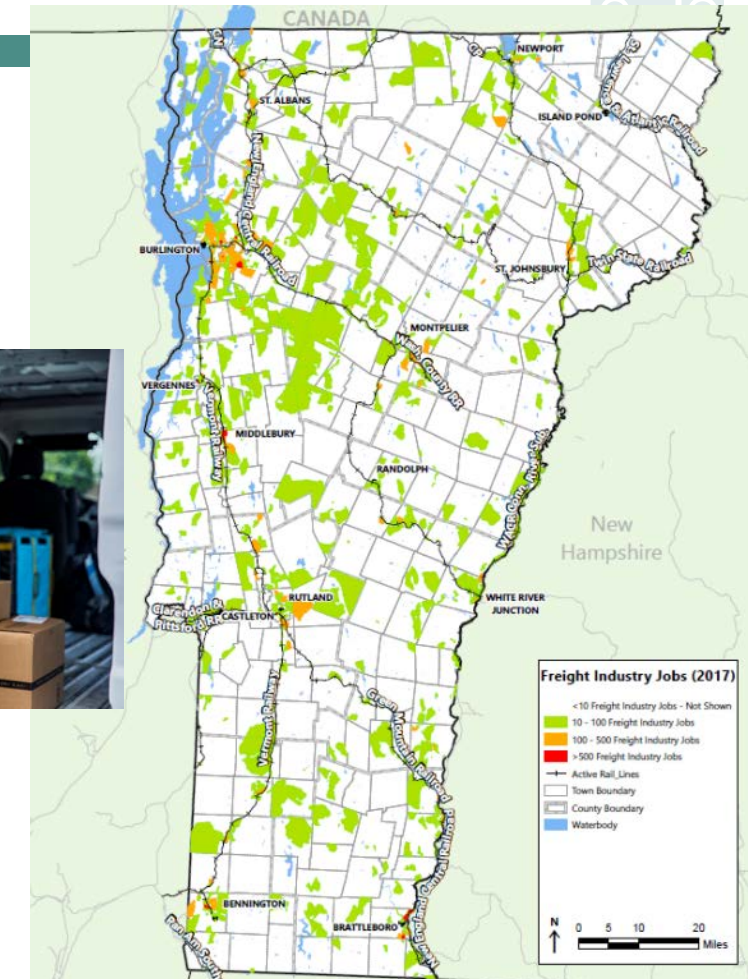
Freight Workforce

- Pandemic recovery = demand for workforce
- Workforce shortage in key freight sectors
- Key factors:
 - Aging workforce
 - Work-life balance
 - Pay
 - Training
 - Compliance/surveillance

NEED: Support the development of workforce capabilities that improve freight system performance



Freight Industry Jobs by Census Block, 2017



Source: US Census LODES WAC Data, 2017; VTrans; Analysis by Cambridge Systematics, 2020.

Freight as a “Good Neighbor”



- Freight supports Vermont’s economy, but there are community concerns:
 - Truck traffic in town centers and urban areas
 - Rail quiet zones
 - Construction activities and traffic
- Communication, coordination



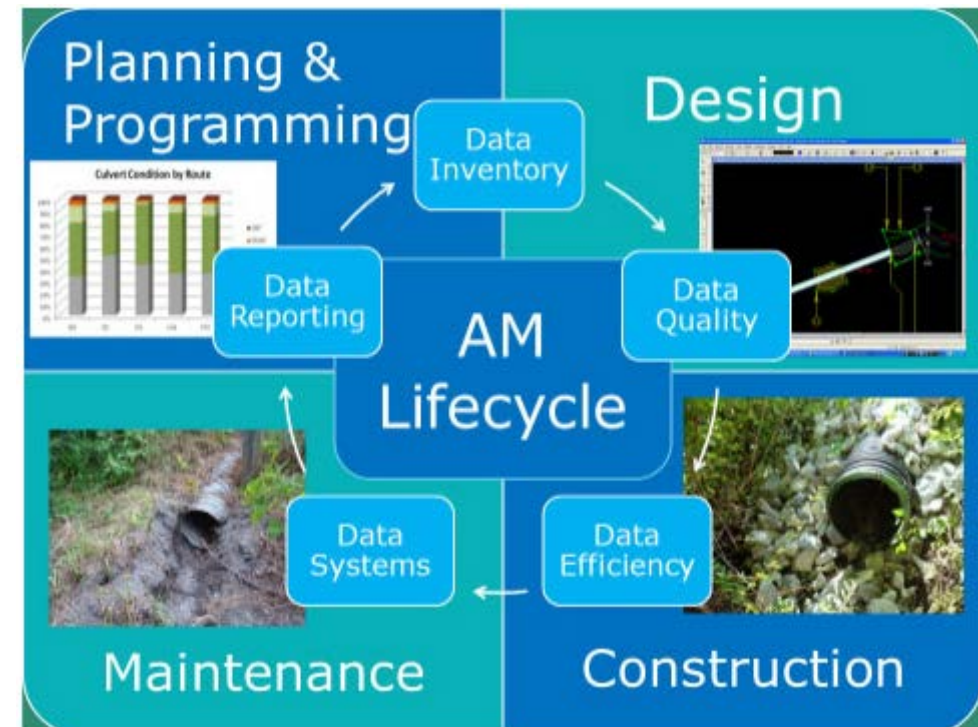
Source: Google Maps

NEED: Coordinate stakeholder discussions around “good neighbor” strategies and practices

Infrastructure Maintenance and Condition

- Vermont Asset Management Information System (VAMIS) Implementation
- New Transportation Asset Management Plan (TAMP) forthcoming
- Funding

NEED: Continue VAMIS implementation

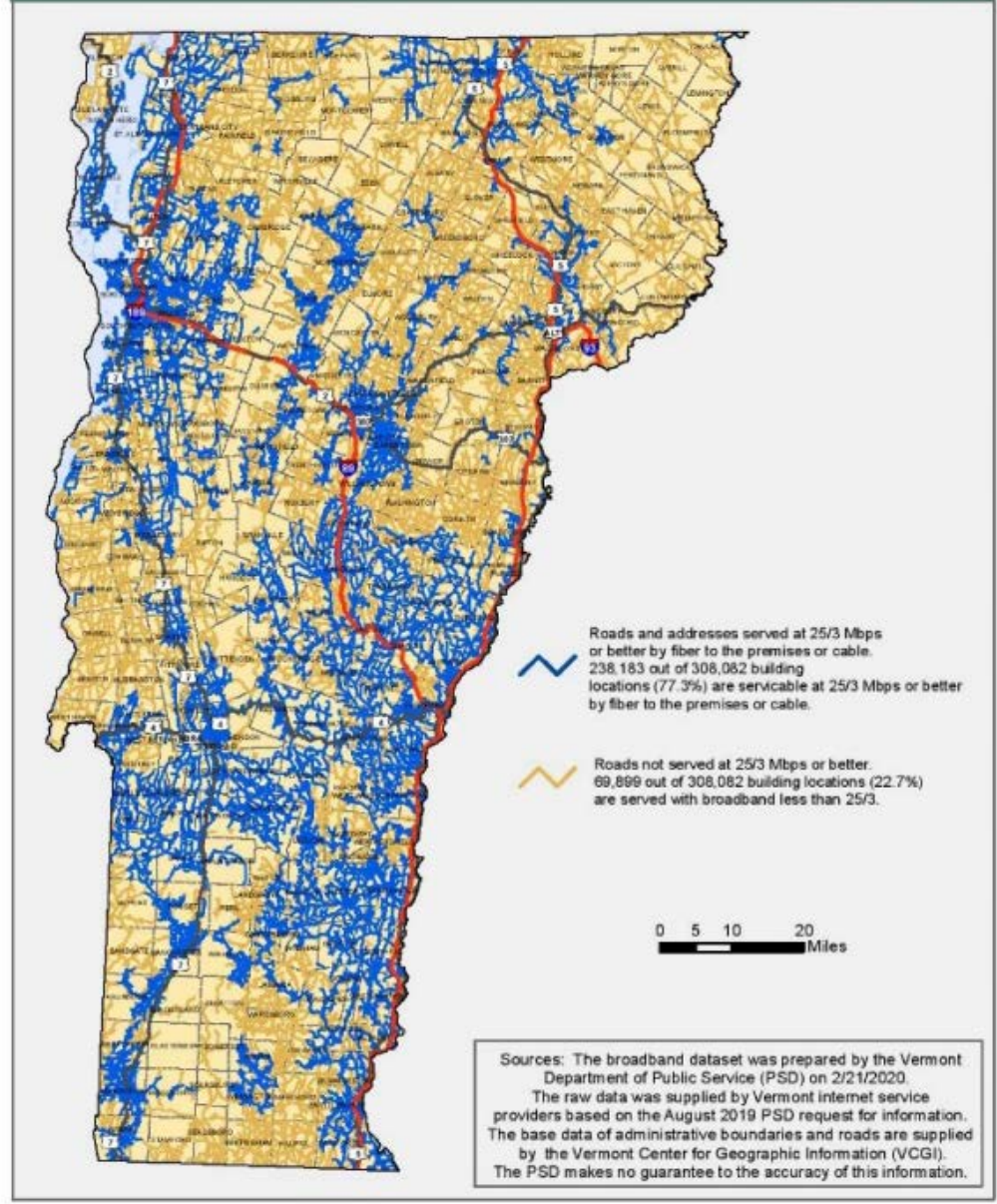


Source: Vermont TAMP

Broadband Internet Access

- Businesses and entrepreneurs need reliable, fast internet access
- Many rural areas across the country lack access to >25 mbps internet

NEED: Expand the reach of broadband internet access statewide



Needs Assessment



	Issue	Need
Performance Measures	System Performance	Help shippers find freight solutions
	Infrastructure Performance	Continue funding State of Good Repair projects
	Travel Time, Border Delays	Manage weather response and Support US and Canadian efforts to improve border operations
	Safety (HAZMAT & Truck-Involved Crashes)	Advance safety improvements, particularly on state highways with truck-involved or HAZMAT crashes
Key Trends and Issues	Technological Innovation	Anticipate the development and deployment of technological innovations, & partner with innovators
	Post-COVID-19 Economic Recovery	Monitor trends and develop more advanced modeling and forecasting capabilities in order to anticipate the potential effects of various future scenarios on freight demand in the state
	E-Commerce and Last-Mile Delivery	Acquire data and estimate the potential effects of deliveries on highways, emissions, and the economy
	Cross-Border Issues	Continue coordinating activities among stakeholders, and undertake mitigating actions, if/as needed
	Truck Size and Weight Permitting and Harmonization	Consider talks with New York to join NETC or otherwise streamline permitting for trips between VT and NY
	Freight Workforce	Support the development of workforce capabilities that improve freight system performance
	Climate Change and Resiliency	Support initiatives to reduce GHG emissions, and identify/harden vulnerable freight infrastructure
	Freight as a “Good Neighbor”	Coordinate stakeholder discussions around “good neighbor” strategies and practices
	Asset Management	Continue VAMIS implementation
	Broadband Access	Expand the reach of broadband internet access statewide

Questions and Discussion



- Are there other potential effects of the trends/issues discussed?
- Are there any other emerging issues or trends to consider?

Potential Initiatives



Potential Initiatives

- Assemble a “long list” of programmed and planned projects and other initiatives that could address the needs
- Preliminary list includes 40+ initiatives in 8 packages
 - (note: some initiatives list capital projects that support the initiative)



Packages of Initiatives



Freight Planning and Policy

- Implementing the Freight Plan
- Advancing VTrans' tools and relationships

Climate Change and Resiliency

- Expanding alternative fuel infrastructure for freight
- Adapting to climate change impacts

Technological Innovation

- Supporting innovation in Vermont
- Expanding information and ITS deployment

Trade Corridors and Economic Development

- Streamlining cross-border and inter-state trade
- Facilitating economic and workforce development

Highway Operations

- Maintaining and improving highways (safety, resilience)
- Assessing and expanding truck parking capacity

Rail Development

- Maintaining and upgrading rail infrastructure
- Educating shippers and the public about freight rail

Air Freight

- Maintaining infrastructure
- Monitoring ongoing studies and plans

Performance Measures

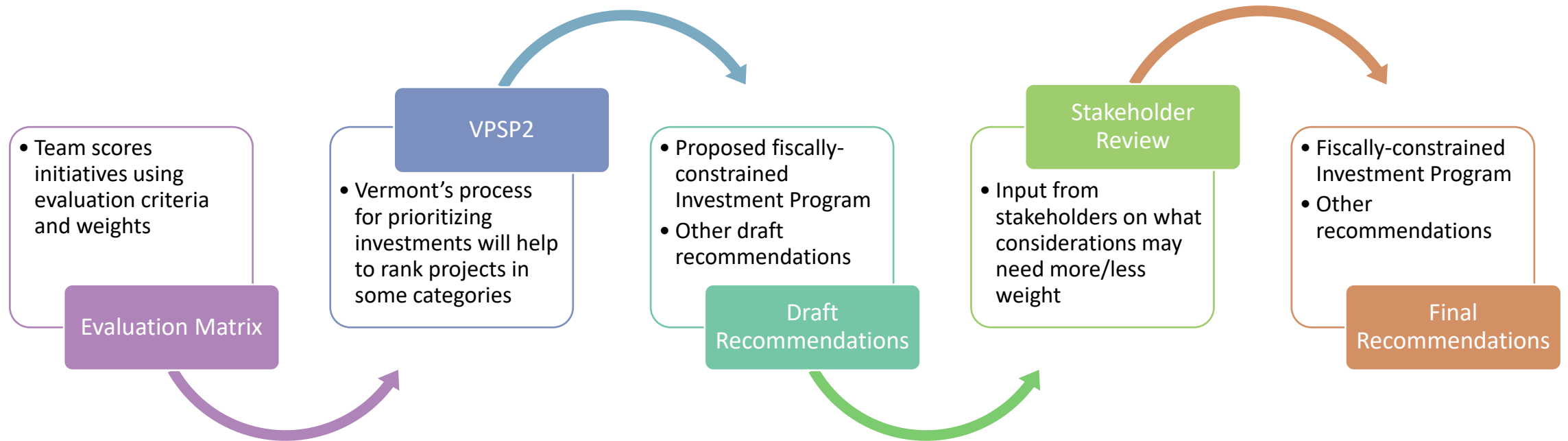
- Developing performance-based freight monitoring and planning

Questions and Discussion



- Are there any thoughts or recommendations on the packages of initiatives?

Proposed Evaluation Process



Questions and Discussion

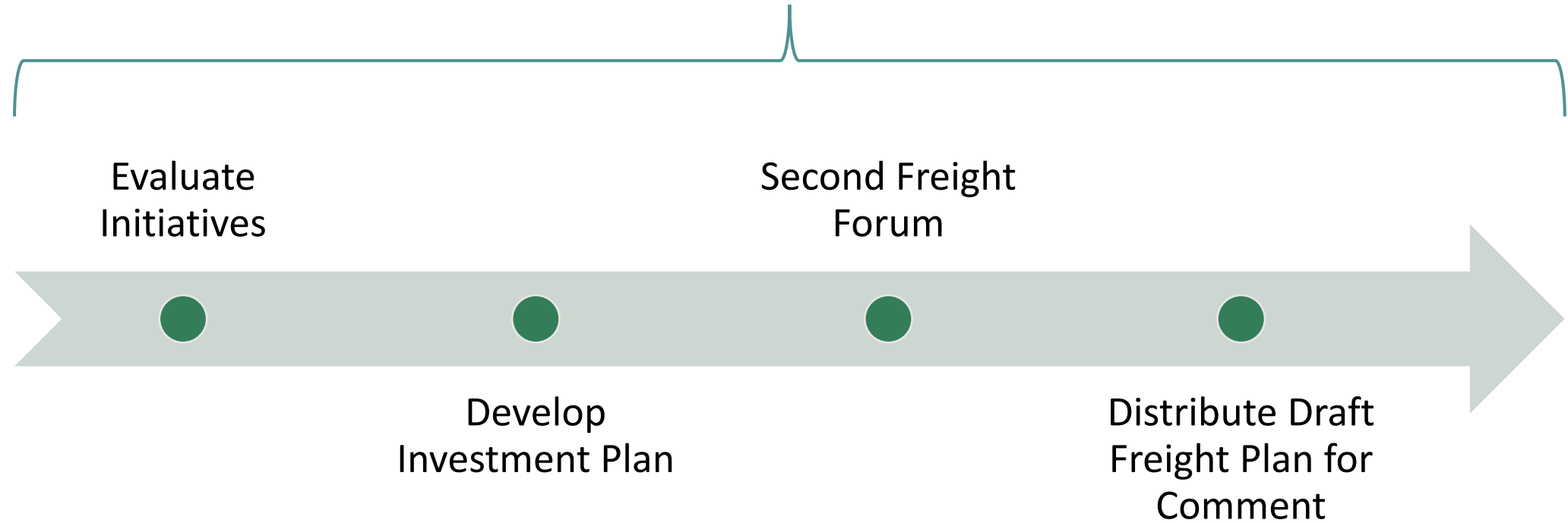


- Are there recommendations on the evaluation process?

Next Steps



Freight Plan Advisory Committee
Input Throughout the Process



Thank You

For more information on the Vermont Freight Plan Update, visit vtrans.vermont.gov/planning/freight or contact Dave Pelletier at Dave.Pelletier@vermont.gov or (802) 595-9675.

For more information on the Vermont Rail Plan Update, visit vtrans.vermont.gov/rail/reports or contact Zoe Neaderland at Zoe.Neaderland@vermont.gov or (802) 793-2778.