



COMMONWEALTH of VIRGINIA  
*Office of the*  
SECRETARY of TRANSPORTATION

## Key Takeaways: VTrans Risk & Opportunity Register

Staunton-Augusta-Waynesboro MPO Technical Committee

Jitender Ramchandani, OIPI Statewide Transportation Planning Manager  
Virginia Office of Intermodal Planning and Investment

February 16, 2022



## TODAY'S PRESENTATION: PURPOSE

- ▶ VTrans Policy for Development and Monitoring of the Long-term Risk & Opportunity Register (LT-ROR)
  - ▶ VTrans Key Long-term Takeaways

# COMPONENTS OF VTRANS

1  
CTB's Vision, Guiding  
Principles, Goals  
and Objectives

2  
VTrans Mid-term  
Needs: Identification  
and Prioritization

3  
VTrans Long-term  
Risk & Opportunity  
Register

4  
Strategic Actions  
(Recommendations)



# LT-ROR POLICY FRAMEWORK

STEP 1

IDENTIFY MEGA- & MACROTRENDS

STEP 2

IDENTIFY METRICS FOR CTB GOALS

STEP 3

ESTIMATE IMPACTS OF MACROTRENDS ON METRICS

STEP 4

DEVELOP VTRANS LONG-TERM RISK  
& OPPORTUNITY REGISTER

STEP 5

TRACK MACROTRENDS FOR ANNUAL REPORTING

MEGATREND

## CLIMATE

## TECHNOLOGICAL

## CONSUMPTION PATTERNS

## SOCIO-DEMOGRAPHIC

MACROTREND



Increase in Flooding Risk

- Sea-level Rise
- Storm Surge
- Inland/Riverine Flooding



Adoption of Highly Autonomous Vehicles



Adoption of Electric Vehicles



Growth in Shared Mobility



Growth in E-commerce



Greater Automation of Production and Services



Growth of Professional Service Industry



Increase in Workplace Flexibility

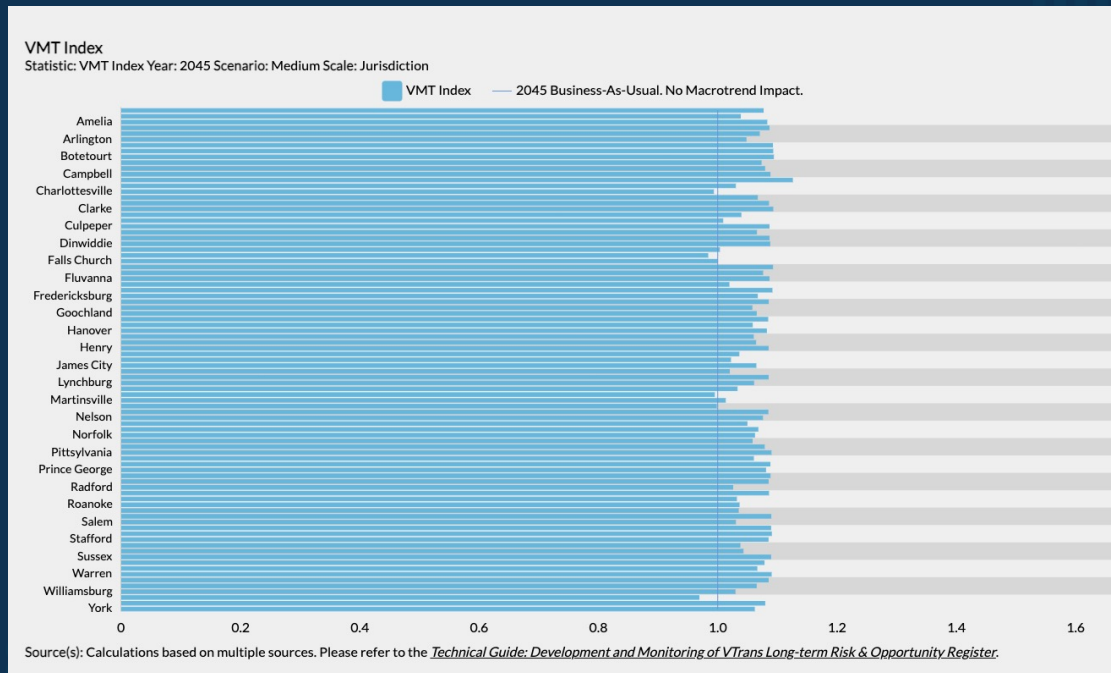


Growth of the 65+ Cohort



Population and Employment Shift

## VEHICLE MILES TRAVELED (VMT) INDEX: ESTIMATED CHANGE IN VMT DUE TO VTRANS MACROTRENDS COMPARED TO THE 2045 BUSINESS-AS-USUAL SCENARIO



### STATEWIDE IMPACT

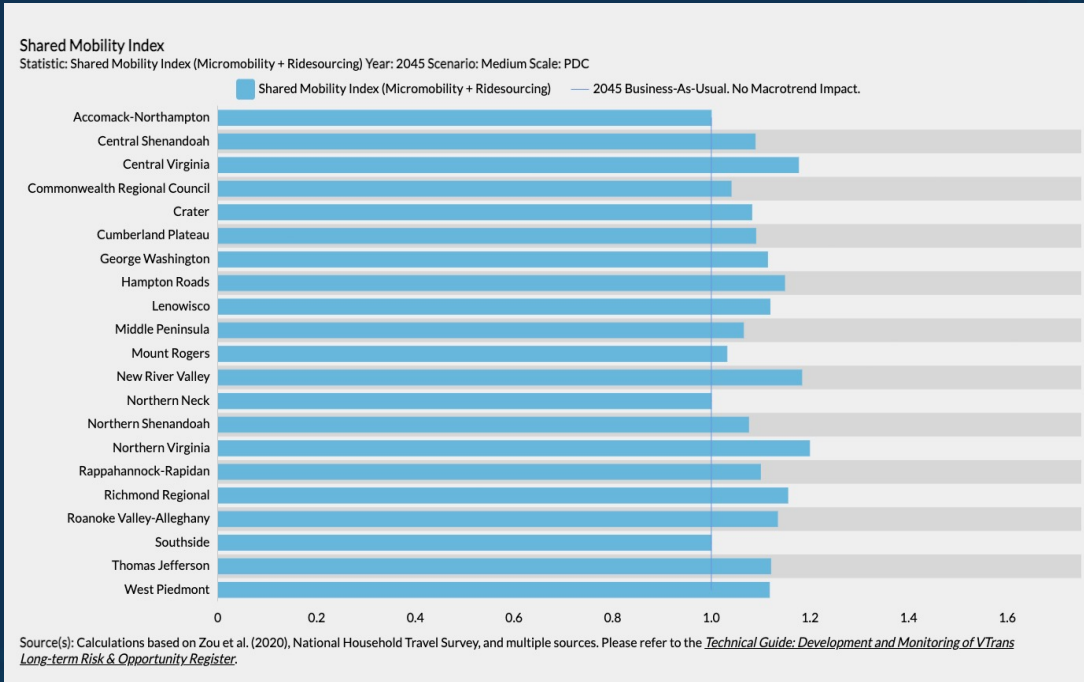
**+4%**  
LOW

**+8%**  
MEDIUM

**+17%**  
HIGH



## SHARED MOBILITY INDEX: ESTIMATED SWITCHABLE URBAN AUTO SOV VMT TO MICROMOBILITY + RIDESOURCING DUE TO VTRANS MACROTRENDS COMPARED TO THE 2045 BUSINESS-AS-USUAL SCENARIO



**STATEWIDE IMPACT**

**+9%**

LOW

**+18%**

MEDIUM

**+27%**

HIGH

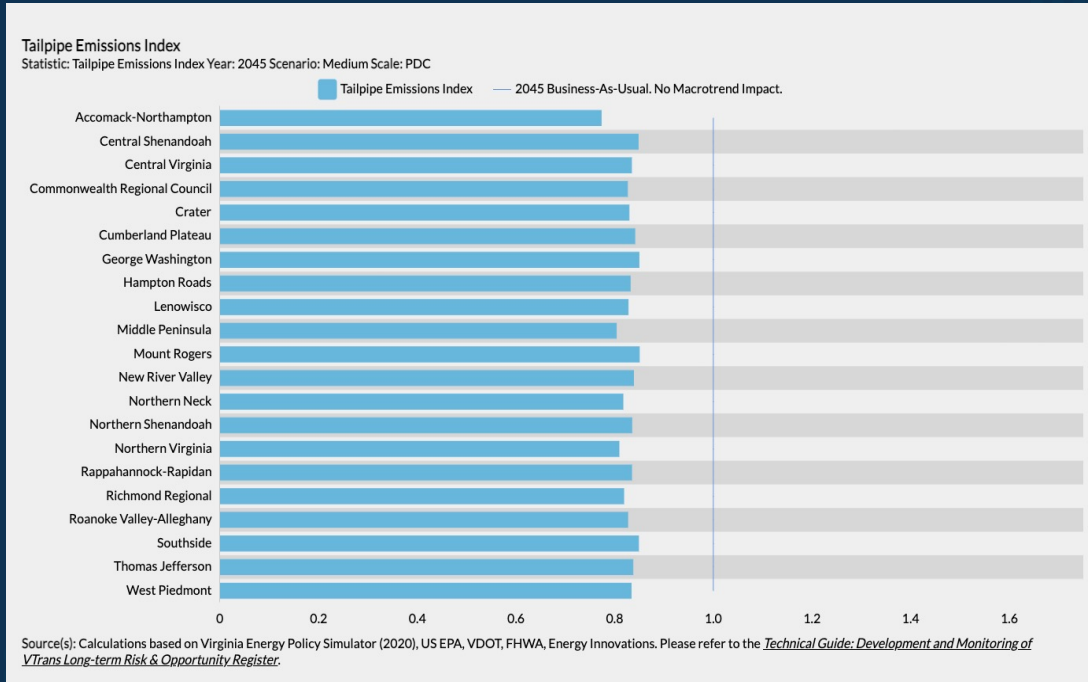








## TAILPIPE EMISSIONS INDEX: ESTIMATED CHANGE IN TAILPIPE EMISSIONS DUE TO VTRANS MACROTRENDS COMPARED TO THE 2045 BUSINESS-AS-USUAL SCENARIOS



**STATEWIDE IMPACT**

**-3%**  
LOW

**-17%**  
MEDIUM

**-69%**  
HIGH



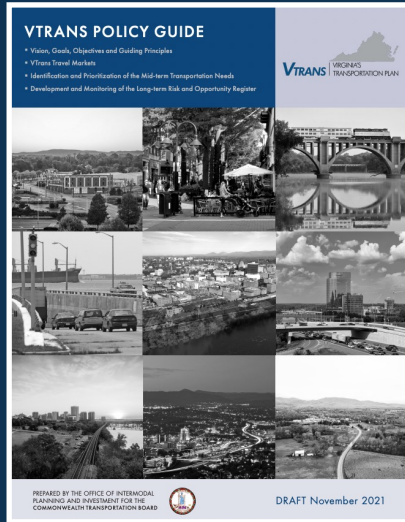
## LT-ROR Steps 4 and 5: RISK & OPPORTUNITY REGISTER

- ▶ Step 4: OIPI has identified 19 risks and opportunities (view them [here](#))
  - ▶ Most of the identified Risks and Opportunities would also be relevant for regional and local entities.
- ▶ Step 5: CTB has directed OIPI to monitor these Mega and Macrotrends and provide annual updates.

# LT-ROR: RESOURCES

## POLICY GUIDE

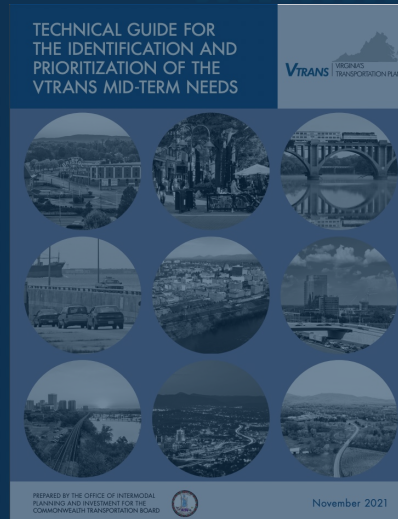
For Policy Makers | Adopted by the CTB



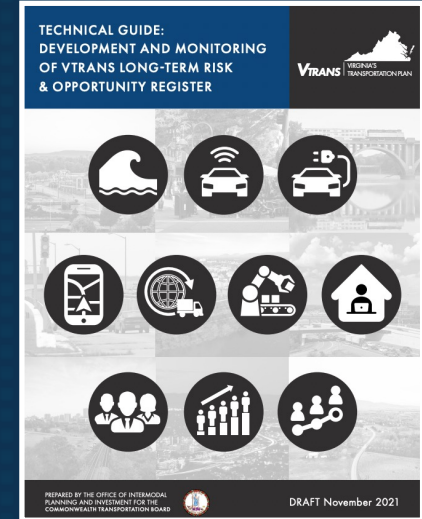
Includes all policies

## TECHNICAL GUIDES

For practitioners | Not adopted by the CTB



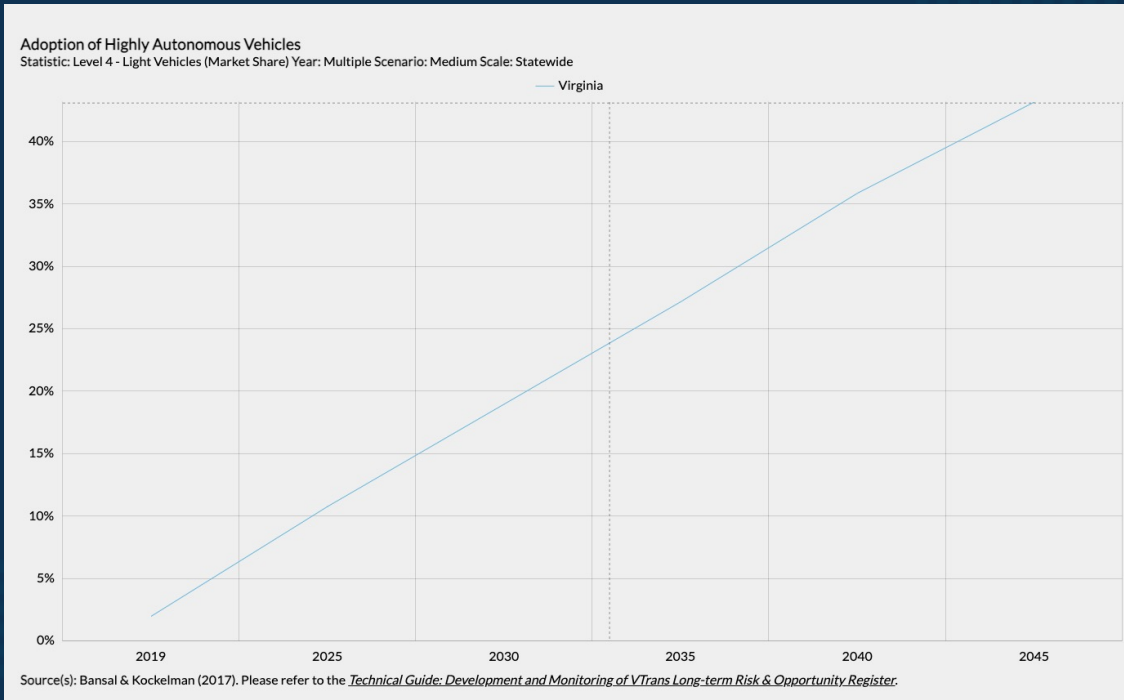
Needs Identification and Prioritization



Long-term Risk & Opportunity Register

## ► Gather jurisdiction- and region-specific impacts of VTrans Macrotrends

VTrans.org > InteractVTrans > Data Explorer



## LT-ROR: WHAT CAN MPO AND PDCs DO WITH THIS INFORMATION?

1. Monitor 19 risks and opportunities (<https://vtrans.org/long-term-planning/long-term-risk-register>)
2. Share them with your policy board members
  - ▶ Convey why this matters
3. Study and develop pilots to address the identified risks and opportunities
  - ▶ GAP-TA Program Component 2 offers resources to get ahead of the curve on some of the more localized impacts.
4. Evaluate the extent to which your LRTPs will be impacted

### ➤ OIPI will:

- Monitor long-term risks & opportunities and modify based on new data and information
- Collaborate with VDOT, DRPT, and other stakeholders to implement and monitor the [VTrans Strategic Actions](#)
- Inform local and regional jurisdictions of available resources to ensure all stakeholders are aware

# THANK YOU!

- ▶ OIPI's Statewide Transportation Planning (STP) Section

- ▶ Jitender Ramchandani | [jitender.Ramchandani@oipi.virginia](mailto:jitender.Ramchandani@oipi.virginia) | 804.489.4295