FDOT Guidance for MPOs on
Automated, Connected, Electric,and Shared Use Vehicles
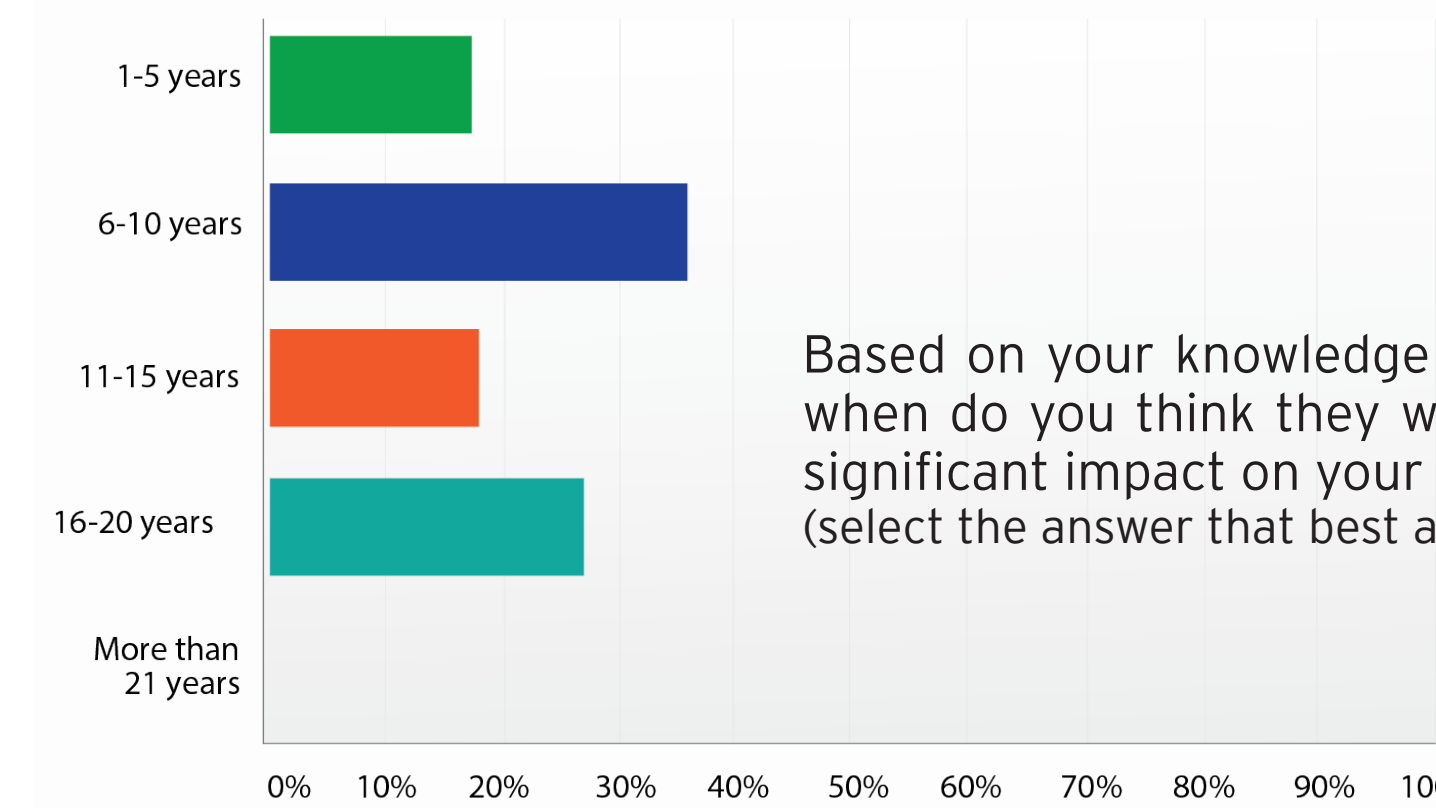
ABSTRACT

Florida metropolitan planning organizations (MPOs) are dealing with an unprecedented amount of potential change as they plan for their transportation needs between now and 2045. Within their current planning horizon, MPOs need to decide how best to address the increasing deployment of automated, connected, electric and shared-use vehicles (ACES) and complementary technologies.

As with many technologies in their infancy, there is uncertainty about likely outcomes and how to plan for them. This guidance is intended to help each MPO consider how best to account for ACES within their individual planning process and long-range transportation plan. As such, the Florida Department of Transportation (FDOT) intends for it to be a catalyst that sparks MPO consideration regarding how ACES uniquely will deploy and affect its specific area.

As a result of these efforts, recommendations for MPO and other regional and local planning considerations included specific tools to help with public engagement, fiscal planning, infrastructure planning, transportation modeling, urban planning, and policy development. The poster is intended to highlight the research completed that utilize the six FHWA ACES integration scenarios for inclusion into planning documents while also addressing potential impacts of an ACES future on Long Range Transportation Plan Goals and Objectives.

NCHRP RESEARCH REPORT 845 — NATIONAL COOPERATIVE HIGHWAY RESEARCH PROGRAM

Advancing Automated and Connected Vehicles: Policy and Planning Strategies for State and Local Transportation Agencies

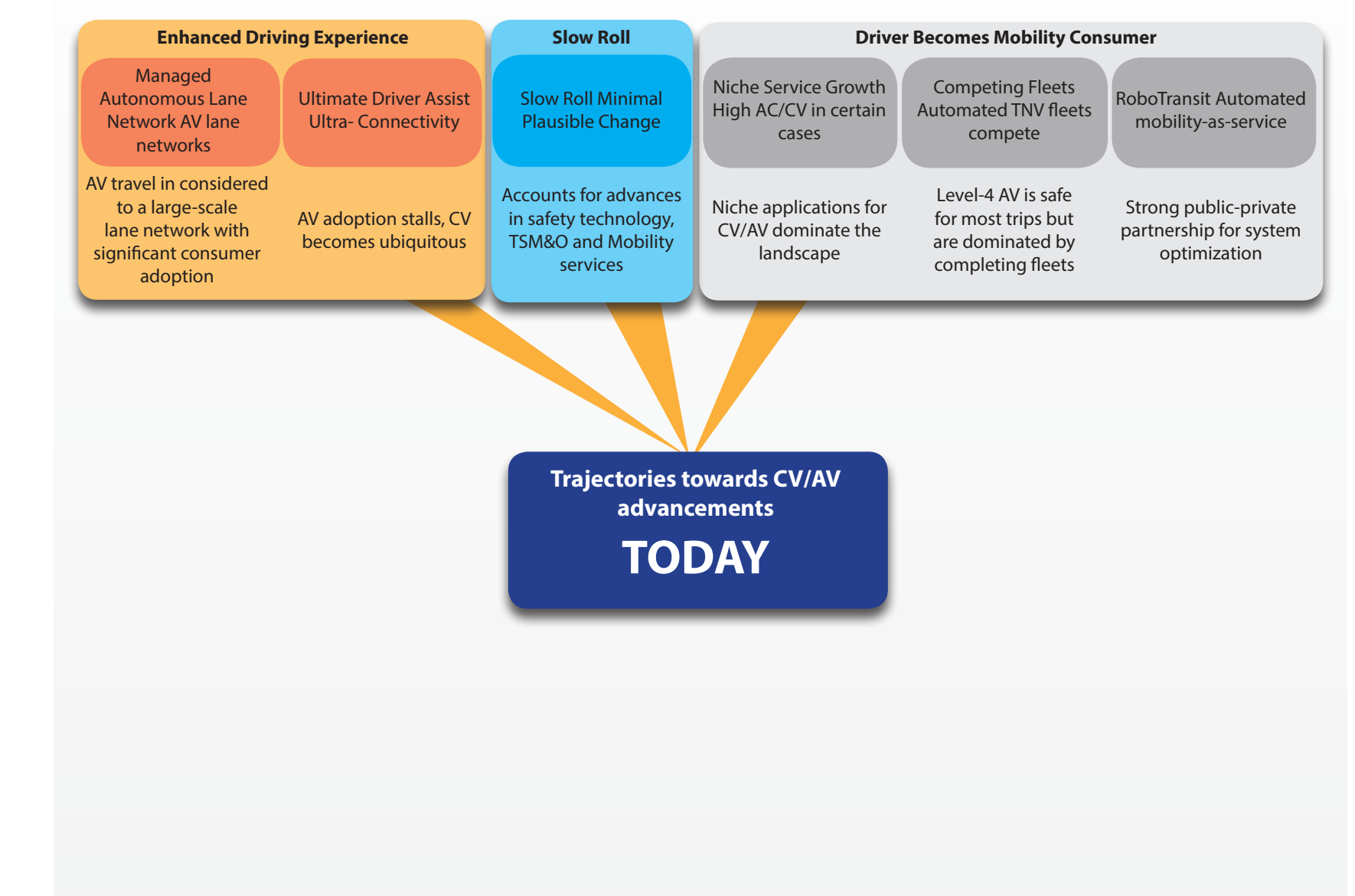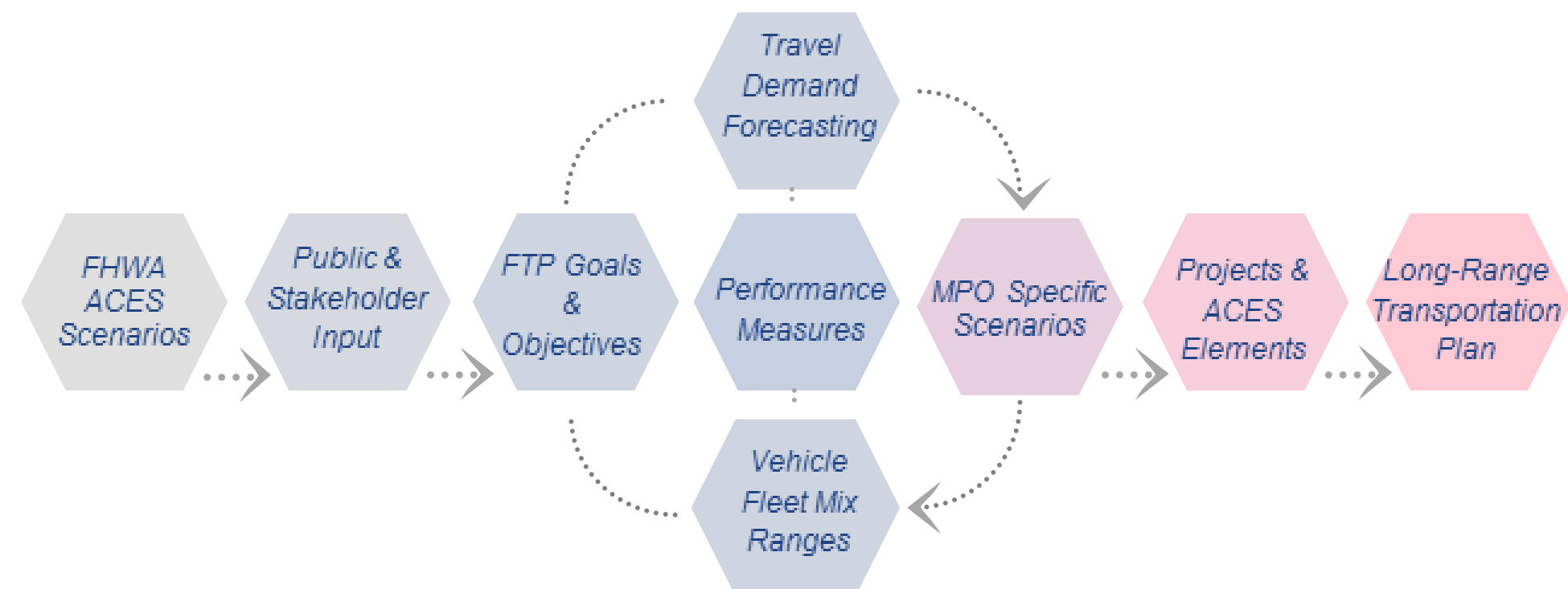Strategies to Advance Automated and Connected Vehicles: Briefing Document

ASK YOURSELF

Based on your knowledge of ACES, when do you think they will have a significant impact on your region? (select the answer that best applies)
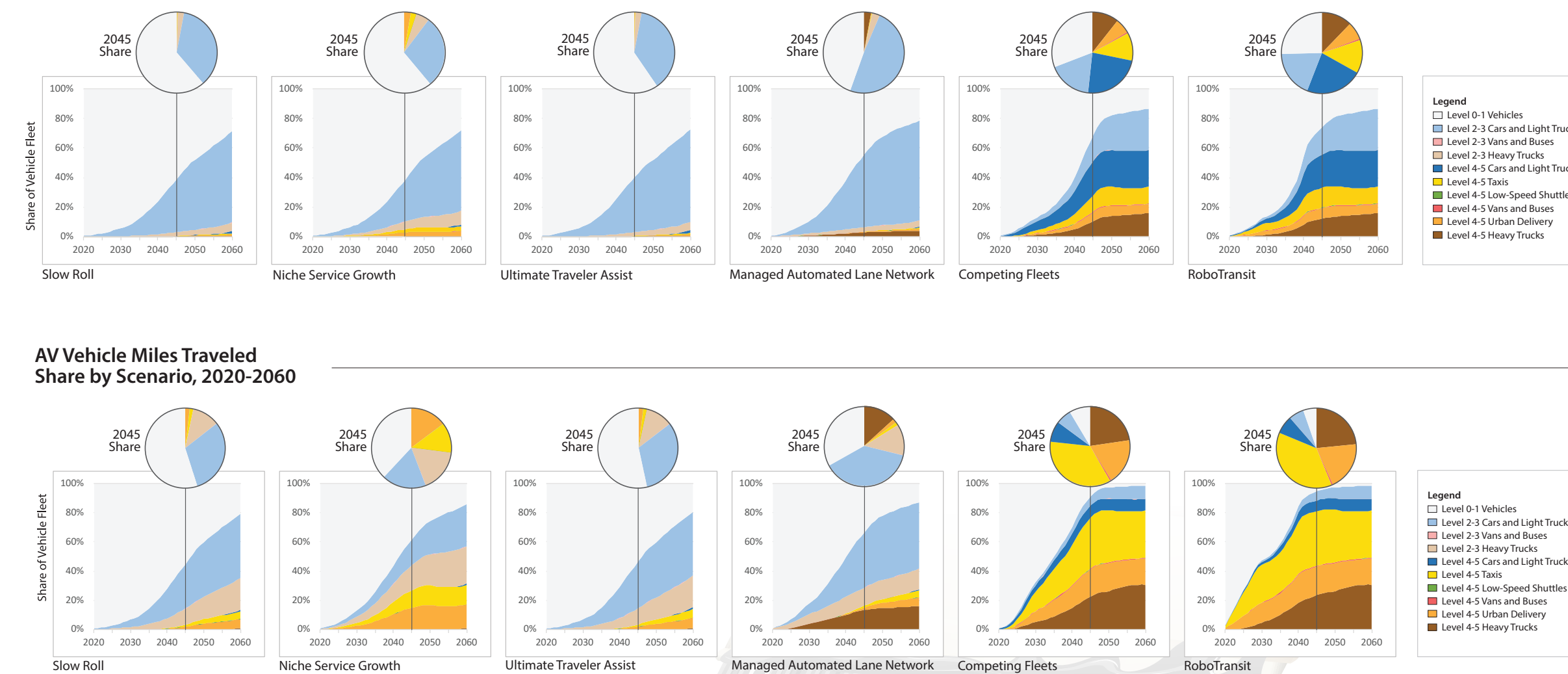
DEFINE PLANNING APPROACH

Trajectories towards CV/AV advancements **TODAY**

Evaluation Process

FHWA ACES Scenarios → Public & Stakeholder Input → FTP Goals & Objectives → Performance Measures → Travel Demand Forecasting → Vehicle Fleet Mix Ranges → MPO Specific Scenarios → Projects & ACES Elements → Long-Range Transportation Plan
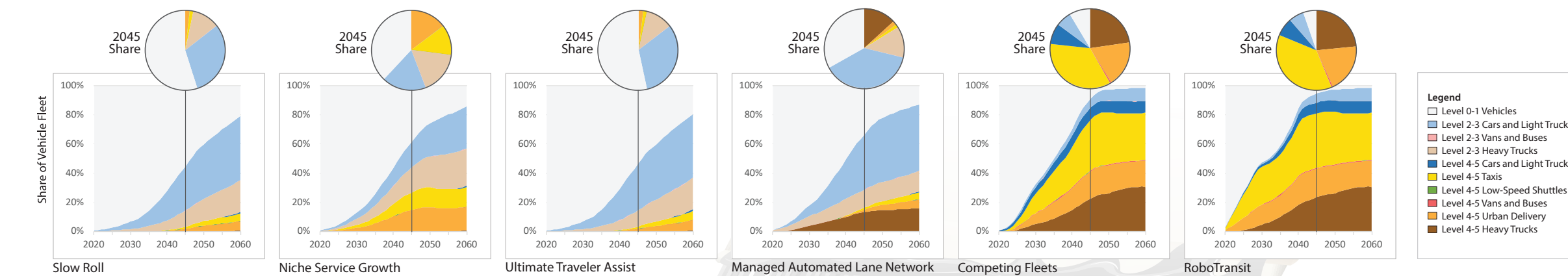
RESULTS

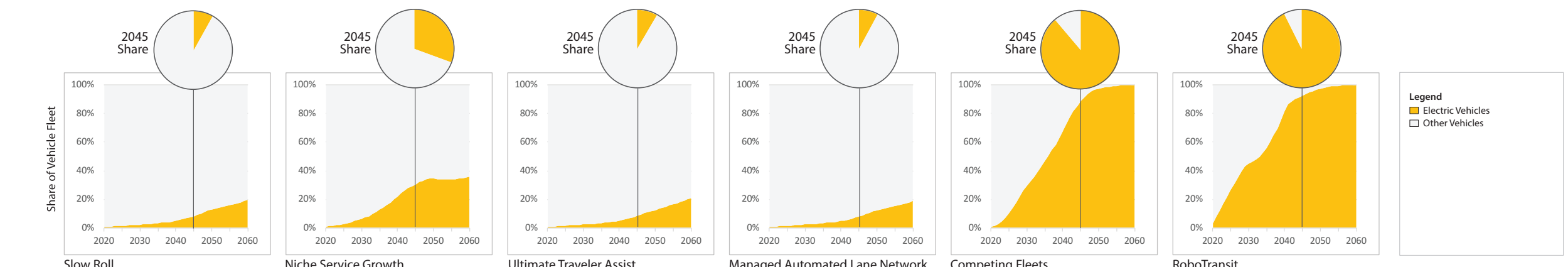Autonomous Vehicle (AV) Fleet Share by Scenario, 2020-2060

CV Vehicle Miles Traveled Share by Scenario, 2020-2060

AV Vehicle Miles Traveled Share by Scenario, 2020-2060

Electric Vehicle (EV) Fleet Share by Scenario, 2020-2060

Travel Demand Impacts

WORK IN PROGRESS

CONSIDERATIONS

ENGAGEMENT

FISCAL|PLANNING

PLANNING

POLICY|DEVELOPMENT

PROJECT|PRIORITIZATION

FDOT

HNTB