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Caltrans Future of Mobility White Paper

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Task Manager:
Tyler Monson
Associate Transportation Planner
Tyler.monson@dot.ca.gov

Caltrans Future of Mobility White Paper

Exploring the long-term impact of developing technology and market trends on California's transportation sector amidst social, economic, and environmental change

WHAT IS THE NEED?

Transportation is undergoing a transformative revolution. Trending technologies and competitive markets are accelerating innovation in the field at faster rates than previously predicted. Meanwhile, California is required to renew its long-range comprehensive transportation plan, called the California Transportation Plan (CTP), every five years. This Future of Mobility White Paper is intended to inform and guide policymakers and modelers developing the next iteration of the CTP – CTP 2050 – by presenting updated descriptions and analyses of developments impacting California's transportation system.

WHAT WAS OUR GOAL?

The goal of this research was to provide Caltrans with a picture of what the future of transportation might look like, providing a base for improved decision-making and planning. The product will guide Caltrans' investment and design decisions in a rapidly evolving transportation context. The University of California, Berkeley's Transportation Sustainability Research Center (TSRC) team conducted a comprehensive literature review to understand trends and timeframes for technologies in the pipeline. TSRC also interviewed key stakeholders from transportation agencies, market experts, and futurists to help frame emerging technologies and trends in the context of the next 30 years.

WHAT DID WE DO?

TSRC collaborated with Caltrans to convene an advisory committee, made up of 50 members from local, regional, and state transportation agencies, to identify key areas of interest for the white paper and intended study outcomes. TSRC

Caltrans provides a safe, sustainable, integrated and efficient transportation system to enhance California's economy and livability.

also conducted six expert interviews and had discussions with representatives from: the California Transportation Commission, California State Transportation Agency, Governor's Office of Planning and Research, California Trucking Association, the High Speed Rail Authority, Intelligent Transportation Systems Joint Programs Office, LA Metro, the Southern California Association of Governments, the Native Indian Justice Center, and Caltrans' Sustainability and Planning and Modal Programs divisions. These interviews and discussions informed and provided feedback to a comprehensive literature review on each of the 21 selected topics. TSRC then analyzed the interview results and the findings from the literature search to identify the current level of knowledge on each topic, trends associated with each topic, and potential new areas of study.

WHAT WAS THE OUTCOME?

TSRC and the advisory panel identified 21 subject areas that may impact transportation to varying degrees through 2050. The authors included findings in each area with an explanation of the state of development of each technology or policy area, the amount of research that has been done on the topic, and the degree to which the future of each topic area is predictable. The paper concluded that discussions of the future of transportation should include trends that are emerging now, despite a lack of research, data, and quantitative analyses.

WHAT IS THE BENEFIT?

Caltrans will use the information gathered as part of the white paper to guide production of the sections of the CTP 2050 that address future technology and trends. This document could also be used to initiate and inform discussion on

a number of topics, and it is expected to be the focal point of workshops related to CTP 2050. In addition, the results have helped to identify gaps in knowledge and potential areas of future research.

IMAGES