

Planning, Policy & Programming

JULY 2022

Project Title:
Institutional Obstacles To New
Transportation Technology
Adoption

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Institutional Obstacles To New Transportation Technology Adoption (White Paper)

Summarize key insights from the literature and draft recommendations for the transportation policy and planning community into a white paper.

WHAT IS THE NEED?

This research will summarize the literature on the role of institutions in the adoption of new transportation technology. We will explain the links between institutions, policy, and project implementation, identify knowledge gaps, and make recommendations for planning and policy.

WHAT ARE WE DOING?

The proposed white paper relates to the Caltrans-PSR (Pacific Southwest Region University Transportation Center) theme "tools and best practices in encouraging efficient land use." The field of transportation is set to undergo profound technological change as autonomous vehicles and other artificial intelligence enabled systems expand people's mobility options. Institutions are critical to how local governments navigate those changes and how they cooperate to make them happen. How innovations are implemented and the balance between mobility and accessibility depends on the capacity of institutions to accommodate those innovations.

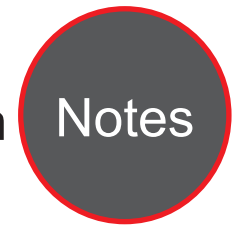
Task 1: Gather a sample bibliography: Canvass the literatures on institutions, metropolitan fragmentation, and technology adoption that is relevant to transportation planning.

Task 2: Review literature, develop a draft one- or two-page table of contents to illustrate key themes.

Task 3: Literature review



DRISI provides solutions and knowledge that improves California's transportation system



Task 4: Draft white paper

Task 5: Respond to comments and finalize white paper. Incorporate feedback from Caltrans into a revised, final version.

WHAT IS OUR GOAL?

The white paper will summarize findings relevant to transportation policy to help policymakers and persons in the public, private, and non-profit sectors understand insights from the academic literature on institutions and institutional behavior. Those insights will be focused on the topic of technological innovation in the transportation sector. The final product will be a white paper that summarizes key insights from the literature and crafts recommendations for the transportation policy and planning community.

WHAT IS THE BENEFIT?

Transportation agencies operate across several levels of government. The difficulty of coordinating transportation policy and infrastructure investment across many cities, counties, and the state is well known. Rapid technological change poses additional challenges that require coordination not only across governments but across the public, private, and non-profit sectors.

This task order will survey the academic literature on institutions, policy development, and project implementation. That literature is often in fields that might be unfamiliar to transportation practitioners – including political science, geography, and public administration. The white paper purpose is to canvass the literature, summarizing lessons for transportation policy in light of rapid technological change.

WHAT IS THE PROGRESS TO DATE?

The literature review was delivered at the end of May, the draft white paper report was submitted in mid- July, and Caltrans panelists responded with comments. Next, researchers will revise the draft white paper per Caltrans comments, finalize and submit final white paper.