

## **Smart Transportation for All? A Typology of Recent U.S. Smart Transportation Projects in Midsized Cities**

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### **ABSTRACT**

Greater integration of advanced vehicle technologies is commonly discussed as a component of developing smart cities, potentially leading to a host of benefits. Final impacts of such benefits are uncertain, though, given research that illustrates induced travel by initial adopters of emerging vehicle technologies and services and mixed effects in transit use and active transportation. The locations within cities where interventions of advanced vehicle technologies are envisioned, geographic scope and extent of integration, and the characteristics of these areas are all likely to influence these effects, and these relationships have received limited Investigative attention. To address this, we conducted a comprehensive review of proposals submitted by 78 midsized cities in the United States to create a typology that considers (1) the geographic scope of intervention and (2) the degree of integration of connected and automated vehicles, generating five distinct types of projects. Characteristics of the areas within cities identified for intervention are compared to those of their U.S. Metropolitan Statistical Area (MSA). We identified indicators of comprehensive planning efforts as they relate to sustainability and resilience outcomes in each city. Results show that areas identified by cities for advanced vehicle technology interventions differ in important ways from each city's broader population that warrant attention relative to known demographic characteristics and behavior of early adopters of transportation technologies. There is also variation in project motivation and municipal planning indicators across typology classifications. These are essential considerations as smart city-aligned transportation interventions continue to develop.

### **KEY WORDS**

Automated vehicle, connected vehicle, smart city, typology.

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