

Business Models for Implementing Geospatial Technologies in Transportation Decision-Making

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In 2005 and 2006, the Federal Highway Administration (FHWA) Office of Interstate and Border Planning (HEPI), along with several state transportation executives, conducted a series of site visits to transportation agencies and GIS vendors to identify the critical information that state DOTs use in making investment decisions in the latest geospatial technologies. Following the scan, FHWA HEPI and the Transportation Research Board (TRB) hosted a one-day workshop to discuss the scan findings. One of the workshop recommendations was to document state DOTs' trade; various business models for implementing geospatial technologies. The outcome would be a resource to share lessons learned and effective practices among state DOTs.

In 2006, the USDOT Volpe Center developed case studies for HEPI that described the business models for geospatial technology implementation at six state DOTs. The findings reported there suggested that the early history of implementing GIS at state DOTs was a primary factor determining how GIS activities are currently organizationally arranged and funded; there was no evidence of drastic or unexpected organizational changes for GIS programs. In order to supplement and enhance these and other conclusions, this follow-on report documents the GIS business models-trade; for an additional 36 of the Nation-trades state DOTs. This report summarizes the second phase of research. It describes the historical and organizational factors contributing to the development of GIS programs at state DOTs, as well as related effective practices. Given this second phase-trades considerably larger state DOT sample size, generalizations about the organizational success factors and constraints related to GIS activities at state DOTs are likely more comprehensive.