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**ICM:**

- Is the next logical step in congestion management
- Optimizes existing transportation infrastructure along a corridor, making transportation investments go farther
- Enables travelers to make informed travel decisions and dynamically shift modes during a trip
- Reduces travel time, delays, fuel consumption, emissions and incidents
- Increases travel time reliability and predictability



## Managing Congestion with Integrated Corridor Management (ICM)

*Manage Traffic Congestion • Increase Travel Time Reliability • Empower Travelers*

In March 2007, the Secretary of the U.S. Department of Transportation (USDOT) affirmed the department’s commitment to a national initiative to manage highway, freight and aviation congestion, calling congestion one of the greatest threats to the nation’s economy.<sup>1</sup> The Secretary noted that businesses lose an estimated \$200 billion per year due to freight bottlenecks; and drivers waste nearly 4 billion hours of time, and more than 2 billion gallons of fuel, in traffic jams each year. The greatest concentration of congestion is often along critical transportation corridors that link residential areas with business centers, sports arenas and shopping areas. New road construction alone will not solve the growing problem of congestion—travel demand on our nation’s roadways is outpacing new freeway capacity by a factor of five.<sup>2</sup>

ICM is a promising tool in the congestion management toolbox that seeks to optimize the use of existing infrastructure assets and leverage unused capacity along our nation’s urban corridors. With ICM, transportation professionals manage the transportation corridor as a multimodal system—rather than taking the more traditional approach of managing individual assets.

### What Is ICM?

Transportation corridors often contain unused capacity in the form of parallel routes, the nonpeak direction on freeways and arterials, single-occupant vehicles and transit services that could be leveraged to help manage congestion. Traffic information today is often fragmented, outdated or not completely useful.

In an ICM corridor, because of proactive multimodal management of infrastructure assets, travelers and shippers could receive information that encompasses the entire transportation network. Travelers could then dynamically shift to alternative transportation options—even during a trip—in response to changing traffic conditions. For example, while driving in a future ICM corridor, a traveler could be informed in advance of congestion ahead on that route and be informed of alternative transportation options such as a nearby transit facility’s location, timing and parking availability.

### The USDOT’s ICM Initiative

The USDOT is partnering with eight “Pioneer Sites” in a 5-year initiative to develop, deploy and evaluate ICM concepts in eight of our nation’s busiest corridors. The USDOT ICM Initiative aims to advance the state of the practice in transportation corridor operations to manage congestion. This initiative will provide the institutional guidance, operational capabilities, Intelligent Transportation Systems (ITS) technology and technical methods needed for effective ICM systems.

### The USDOT ICM Initiative Has the Following Objectives:

1. Demonstrate how operations strategies and ITS technologies can be used to efficiently and proactively manage the movement of people and goods in major transportation corridors through integration of the management of all transportation networks in a corridor.

**For more information on the USDOT’s ICM Initiative, please visit:**

<http://www.its.dot.gov/itsweb/icms/index.htm>

<sup>1</sup> <http://www.fightgridlocknow.gov/docs/conginitooverview070301.htm>. Accessed April 2007.

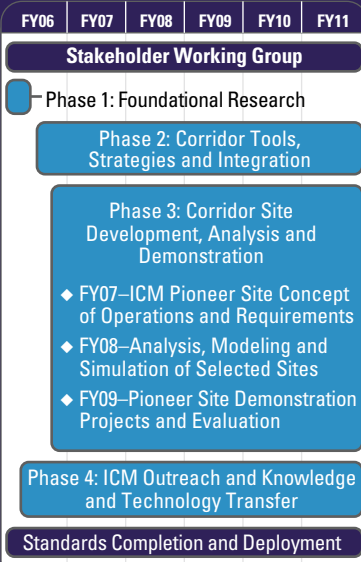
<sup>2</sup> Ibid.





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**USDOT ICM Initiative Timeline**



2. Develop a toolbox of operational policies, cross-network operational strategies, integration requirements and methods, and analysis methodologies needed to implement effective ICM systems.
3. Demonstrate how proven and emerging ITS technologies can be used to coordinate the operations between separate corridor networks to increase the effective use of the total transportation capacity of the corridor.

**Pioneer Sites—Innovators and Leaders in Congestion Management**

As part of this ICM Initiative, the USDOT selected eight Pioneer Sites to plan, design, model and demonstrate the benefits of ICM. These Pioneer Sites have distinguished themselves as innovators and leaders in the area of congestion management:

- Dallas, Texas
- Houston, Texas
- Minneapolis, Minnesota
- Montgomery County, Maryland
- Oakland, California
- San Antonio, Texas
- San Diego, California
- Seattle, Washington

These Pioneer Sites are developing, testing and evaluating combinations of new institutional approaches and advanced technologies designed to optimize the existing transportation infrastructure and offer travelers more choices. Their leadership and willingness to try new approaches as part of this groundbreaking initiative will directly contribute to more efficient and safer urban corridors for the future.

**A Phased Approach to the USDOT's ICM Initiative:**

The USDOT's ICM Initiative will occur in four phases:

- **Phase 1: Foundational Research**—This phase includes research into the current state of corridor management in the United States as well as leading examples of ICM-like practices around the world; initial feasibility research; and the development of initial technical guidance such as a generic concept of operations for ICM to serve as a resource for sites seeking to develop their own concepts.
- **Phase 2: Corridor Tools, Strategies and Integration**—USDOT will develop a framework to model, simulate and analyze ICM strategies. It will work with the Pioneer Sites to deploy and test various ICM components such as standards, interfaces and management schemes.
- **Phase 3: Corridor Site Development, Analysis and Demonstration**—USDOT will model up to four ICM approaches developed by the Pioneer Sites and fund demonstration and evaluation of up to four approaches that appear to offer the greatest potential.
- **Phase 4: Outreach and Knowledge and Technology Transfer (KTT)**—USDOT is packaging the knowledge and materials developed throughout the USDOT's ICM Initiative into a suite of useful multimedia resources designed to equip transportation practitioners in corridors around the country to implement ICM. KTT materials will include the fully searchable, browseable ICM Knowledgebase available now, fact sheets, peer-to-peer training programs, webinars, outreach materials, other knowledge exchange forums and resource guidance documents. USDOT is also developing outreach materials that can be tailored by regions around the country to raise awareness about ICM. Visit the ICM Knowledgebase at [www.its.dot.gov/icms/compendium.htm](http://www.its.dot.gov/icms/compendium.htm) to access ICM KTT and outreach materials available today to help transportation professionals implement ICM.

These phases are designed to promote innovation in the development of new approaches for efficiently managing existing assets within a corridor. Ultimately, these four phases will help the USDOT and Pioneer Sites to identify and advance promising ICM approaches that can serve as critical next steps in the nation's efforts to manage traffic congestion.

**For more information on the ICM KTT or the USDOT ICM Initiative, please visit:**

<http://www.its.dot.gov/itsweb/icms/index.htm>

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