

# Congestion Mitigation and Air Quality Improvement (CMAQ) Program



U.S. Department of Transportation  
Federal Highway Administration

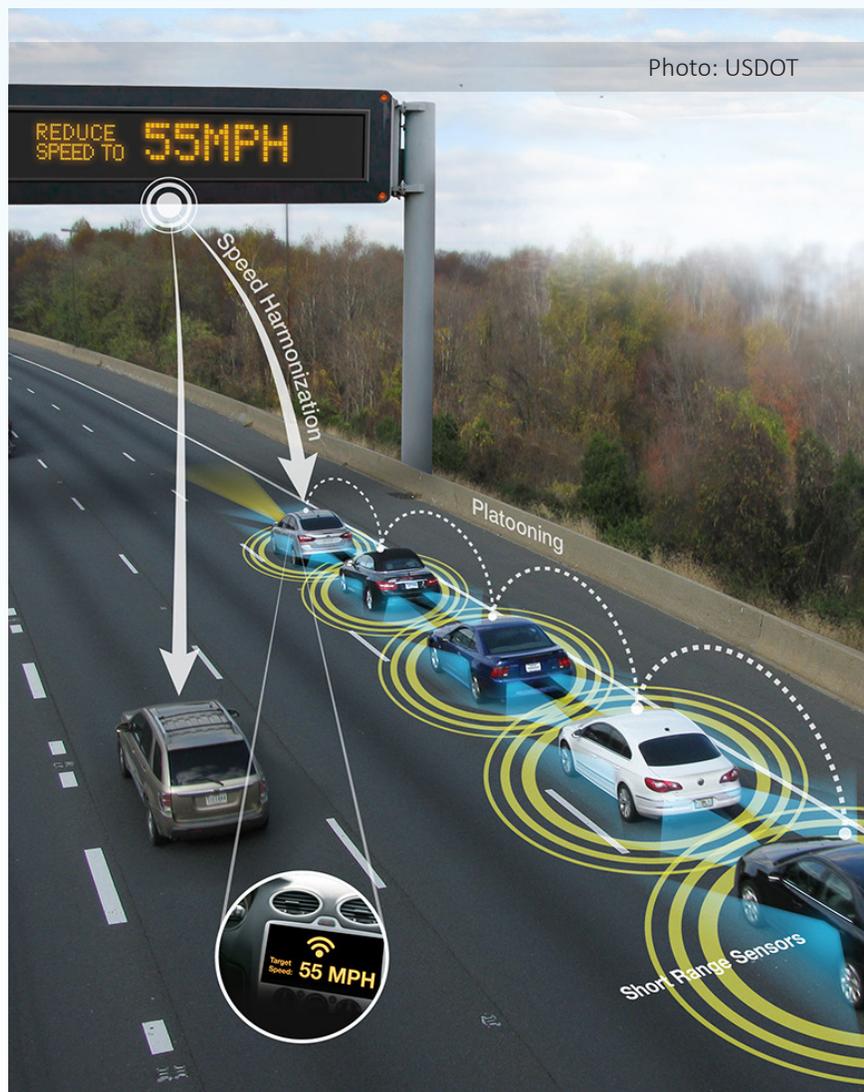


## Intelligent Transportation Systems (ITS)

Intelligent transportation systems (ITS), including vehicle-to-infrastructure technology (V2I), are a combination of computer and communication technologies, as well as institutional partnerships. ITS can be effective in relieving traffic congestion, enhancing transit bus performance and enhancing air quality. ITS projects improve traffic flow characteristics, such as speed; improved traffic flow can reduce emissions rates in many situations.

### Eligible ITS and V2I Technology

- Traffic monitoring through detectors and closed circuit video equipment
- Traffic management through computerized traffic signal timing
- Freeway and transit management systems
- Regional transportation management centers
- Provision of real-time information to travelers
- 511 telephone services and websites
- Road weather information systems
- Traffic incident and work zone management programs
- Other devices that are used to manage, monitor, and control traffic with the goal of improving traffic flow
- Installation of V2I communication equipment



## Examples of Successful ITS/V2I Projects

**Cincinnati, OH:** The Advanced Regional Traffic Interactive Management and Information System (ARTIMIS) is a transportation system management project designed to improve traffic flow. It was put in place by the Ohio-Kentucky-Indiana (OKI) Council of Governments to monitor and control traffic on 88 miles of regional freeways at a total cost of \$57 million, of which \$41 million were CMAQ funds.

- *Estimated emission reductions: 186 kg/day of VOC*

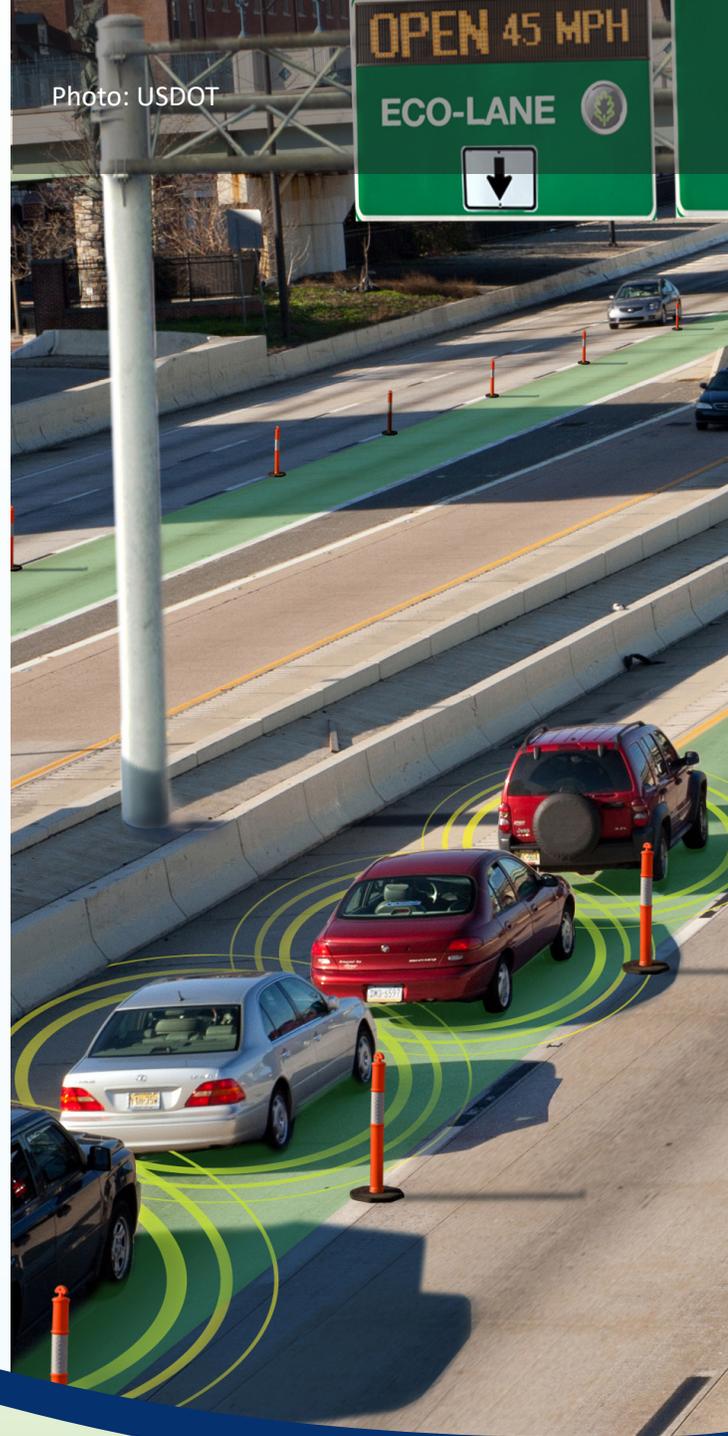
**Philadelphia, PA:** The Arterial Street Signal Interconnect is an interconnection of traffic signals along arterials with high transit use implemented to improve traffic flow and to enhance transit quality. The total annual project cost was \$214,033, of which \$171,227 were CMAQ funds.

- *Estimated emission reductions: 52 kg/day VOC and 5.7 kg/day NO<sub>x</sub>*

**Atlanta, GA:** The Georgia NAVIGATOR is an Advanced Transportation Management System that monitors and manages traffic conditions on 90 miles of interstate highway in the Atlanta metropolitan area. The system was developed at a total cost of \$140 million, of which \$54 million were CMAQ funds.

- *Estimated emission reductions: 614 kg/day VOC and 578 kg/day NO<sub>x</sub>*

Photo: USDOT



### For more information, please contact:

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[http://www.fhwa.dot.gov/environment/air\\_quality/cmaq/](http://www.fhwa.dot.gov/environment/air_quality/cmaq/)