

How innovations can drive better transportation system

3 September 2014, by Nancy Owano



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A recent report provides some real numbers and real cases in point of the significant gains we will be making in adopting smart transportation technologies. Drops in U.S. oil consumption, greenhouse gas emissions, and time wasted waiting in traffic are a few of the paybacks one can expect. With current sales trends gas-electric hybrid vehicles represent significant potential fuel savings on the order of 2 billion barrels of oil and 170 million metric tons of carbon dioxide over a ten-year period. The report, "Accelerating Sustainability: Demonstrating the Benefits of Transportation Technology," by the Intelligent Transportation Society of America (ITS America), was announced late last month.

The data present the latest, bracing findings of gasoline use and abuse. Simply, the transportation sector of the United States economy consumes fossil fuels on an enormous scale. "Cars, trucks, SUVs, buses, motorcycles, and heavy-duty vehicles devoured 170 billion gallons of gasoline in 2010, enough to drive about 3 trillion miles, which is the equivalent of about a thousand trips to Pluto." The report said the fact remains that this

amount of gasoline results in the emission of 1.7 billion metric tons of [carbon dioxide](#), the most significant [greenhouse gas](#), into the atmosphere each year.

The report looks to new technologies and engineering designs for cars. Plug-in hybrids and battery [electric cars](#) represent the biggest fuel efficiency gains on a per-vehicle basis compared with the average gasoline light duty vehicle, offering fuel savings. What kind of savings are they looking at? The numbers are striking. Savings are equivalent to 409.8 gallons per year for plug-ins, and 361.5 gallons per year for battery electric vehicles. Plug-in [hybrid vehicles](#), they explained, is the term they used to refer to vehicles that use a combination of an electric battery and a gasoline internal combustion engine to power the drivetrain. The battery can be charged by plugging the vehicle into an electricity grid, such as a wall outlet. By battery electric vehicles, they are referring to those that use only rechargeable batteries to power the drivetrain.

The report shows gains can be achieved but, said Information Technology Industry Council (ITI) President and CEO Dean Garfield, "What is missing is for our lawmakers to act and bring our 20th Century policies into the 21st Century to make full use of the proven technologies available today."

The report includes case studies of already measurable results across the country in implementing smart modes of transportation. The Smithsonian Institution, one of the cases, reduced fuel consumption of its vehicle fleet by 52 percent by using GPS tracking and wireless communication to better manage its vehicles.

More information: Report - digitalenergysolutions.org/kno...portation-technology

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