Intelligent Vehicles & Sustainability: By The Numbers

Intelligent vehicle technologies are vital to reducing our carbon footprint and saving the environment. In 2012, the transportation sector contributed 1,511 million metric tons of CO_2 emissions from the consumption of gas and diesel fuel in the U.S. The deployment of intelligent vehicle technologies could cut the sector's greenhouse gas emissions, reduce congestion and fuel waste, and save travelers' time.

The Transportation Sector Is One Of The Largest Contributors To Air Pollution. Growing Congestion Equals Billions Of Gallons Of Fuel, Hours Of Time, And Dollars Wasted.

29% | The percentage of total U.S. energy-related CO_2 emissions the transportation sector represented in 2012.

366 MILLION | Gallons of gasoline used per day by Americans in 2012 – equaling more than a gallon every day for each man, woman, and child.

2.9 BILLION | The number of gallons of wasted fuel caused by congestion in 2011 – enough to fill four New Orleans Superdomes.

56 BILLION | The pounds of additional greenhouse gas released into the atmosphere during urban congested conditions – equivalent to the liftoff weight of over 12,400 space shuttles with all fuel tanks full.

38 HOURS | The amount of extra hours the average commuter spent traveling during the peak period in 2011, as compared to 16 hours in 1982.

19 GALLONS | The amount of fuel wasted by the average commuter in 2011 due to congestion – up from 8 gallons in 1982.

Utilizing Intelligent Vehicle Technologies Will Cut Emissions And Help The Environment.

20% | The percentage of fuel savings possible by using self-driving technology.

1/3 | The amount of cars looking for parking that could be eliminated if wireless solutions were more widely utilized.

62 METRIC TONS | The amount of CO_2 emissions each car-sharing vehicle could eliminate.

80 MILLION METRIC TONS | The amount of Carbon Dioxide Equivalent that could be saved by deploying wireless fleet management systems by 2020.

70,000 METRIC TONS | The amount of CO_2 emissions that could be reduced by wireless solutions facilitating the purchase of electric vehicles in place of even 1 percent of cars purchased in the United States in 2012.

Intelligent Car Coalition

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Intelligent Vehicles & Sustainability: By the Numbers

THE TRANSPORTATION SECTOR IS ONE OF THE LARGEST CONTRIBUTORS TO AIR POLLUTION. GROWING CONGESTION EQUALS BILLIONS OF GALLONS OF FUEL, HOURS OF TIME, AND DOLLARS WASTED.

29%: The Percentage Of "Total U.S. Energy-Related CO_2 Emissions" The Transportation Sector Represented In 2012. "EIA estimates that U.S. gasoline and diesel fuel consumption for transportation in 2012 resulted in the emission of about 1,089 and 422 million metric tons of CO_2 respectively, for a total of 1,511 million metric tons of CO_2. This total was equivalent to 83% of total CO_2 emissions by the U.S. transportation sector and 29% of total U.S. energy-related CO_2 emissions." Source: U.S. Energy Information Administration, "Frequently Asked Questions: How much carbon dioxide is produced by burning gasoline and diesel fuel?" http://www.eia.gov/tools/faqs/faq.cfm?id=307&t=10, Last updated 4/18/13, Accessed 4/23/14

366 Million: Gallons Of Gasoline Used Per Day By Americans In 2012 – Equaling "More Than A Gallon Of Gasoline Every Day For Each Man, Woman, And Child." "Americans used about 366 million gallons per day of gasoline in 2012. With about 305 million people in the United States, that equals more than a gallon of gasoline every day for each man, woman, and child." Source: U.S. Energy Information Administration, "Gasoline Explained: Use of Gasoline," http://www.eia.gov/energyexplained/index.cfm?page=gasoline_use, Accessed 4/23/14

2.9 Billion: The Number Of "Gallons Of Wasted Fuel" Caused By Congestion In 2011 – "Enough To Fill Four New Orleans Superdomes." "Congestion wastes a massive amount of time, fuel and money. In 2011: … 2.9 billion gallons of wasted fuel (enough to fill four New Orleans Superdomes)." Source: Texas A&M Transportation Institute, "2012 Urban Mobility Report," http://d2dtl5nnlpfr0r.cloudfront.net/tti.tamu.edu/documents/mobility-report-2012.pdf, 12/2012

56 Billion: The Pounds Of "Additional … Greenhouse Gas Released Into The Atmosphere During Urban Congested Conditions" – "Equivalent To The Liftoff Weight Of Over 12,400 Space Shuttles With All Fuel Tanks Full." "Congestion wastes a massive amount of time, fuel and money. In 2011: … 56 billion pounds of additional carbon dioxide (CO_2) greenhouse gas released into the atmosphere during urban congested conditions (equivalent to the liftoff weight of over 12,400 Space Shuttles with all fuel tanks full)." Source: Texas A&M Transportation Institute, "2012 Urban Mobility Report," http://d2dtl5nnlpfr0r.cloudfront.net/tti.tamu.edu/documents/mobility-report-2012.pdf, 12/2012

38 Hours: The Amount Of Extra Hours The "Average Commuter" Spent Traveling "During The Peak Period" In 2011, As Compared To "16 Hours In 1982." "Congestion affects people who travel during the peak period. The average commuter: Spent an extra 38 hours traveling in 2011, up from 16 hours in 1982." Source: Texas A&M Transportation Institute, "2012 Urban Mobility Report," http://d2dtl5nnlpfr0r.cloudfront.net/tti.tamu.edu/documents/mobility-report-2012.pdf, 12/2012

19 Gallons: The Amount Of Fuel Wasted By The "Average Commuter" In 2011 Due To Congestion – "Up From 8 Gallons In 1982." "Congestion affects people who travel during the peak period. The average commuter: … Wasted 19 gallons of fuel in 2011 – a week's worth of fuel for the average U.S. driver – up from 8 gallons in 1982." Source: Texas A&M Transportation Institute, "2012 Urban Mobility Report," http://d2dtl5nnlpfr0r.cloudfront.net/tti.tamu.edu/documents/-mobility-report-2012.pdf, 12/2012

UTILIZING INTELLIGENT VEHICLE TECHNOLOGIES WILL CUT EMISSIONS AND HELP THE ENVIRONMENT.

20%: The Percentage Of Fuel Savings Possible By Using Self-Driving Technology. "Fuel savings of 15 to 20 percent could be possible through the use of self-driving technology." Source: James Manyika, Michael Chui. Jacques Bughin, Richard Dobbs, Peter Bisson and Alex Marrs, "Disruptive Technologies: Advances That Will Transform Life, Business, And The Global Economy," http://www.mckinsey.com/~/media/McKinsey/dotcom/Insights%20and%20pubs/MGI/Research/Technology%20and%20Innovation/Disruptive%20technologies/MGI_Disruptive_technologies_Full_report_May2013.ashx, 5/2013

1/3: The Amount Of Cars Looking For Parking That Could Be Eliminated If Wireless Solutions Were Utilized. "Wireless solutions can significantly reduce the number of cars looking for parking. If these solutions can eliminate a third of such 'cruisers,' it would reduce traffic in some neighborhoods by at least 10 percent." Source: BSR, "Advancing Environmental Sustainability in the Transportation Sector: The Role of Wireless Technologies," Commissioned by The Wireless Foundation, http://www.wirelessfoundation.org/Files/Wireless_Transportion_Green_Report.pdf, 11/2013

62 Metric Tons: The Amount Of CO_2 Emissions "Each Car-Sharing Vehicle" Could Eliminate. "Each car-sharing vehicle is estimated to remove 9 to 13 privately owned cars, equivalent to eliminating 43 to 62 metric tons of CO_2 emissions annually." Source: BSR, "Advancing Environmental Sustainability in the Transportation Sector: The Role of Wireless Technologies," Commissioned by The Wireless Foundation, http://www.wirelessfoundation.org/Files/Wireless_Transportion_Green_Report.pdf, 11/2013

80 Million Metric Tons: The Amount Of Carbon Dioxide Equivalent That Could Be Saved By Deploying "Wireless Fleet Management Systems" By 2020. "The deployment of wireless fleet management systems could save up to a total of 80 million metric tons Carbon Dioxide Equivalent globally by the year 2020." Source: BSR, "Advancing Environmental Sustainability in the Transportation Sector: The Role of Wireless Technologies," Commissioned by The Wireless Foundation, http://www.wirelessfoundation.org/Files/Wireless_Transportion_Green_Report.pdf, 11/2013

70,000 Metric Tons: The Amount Of CO_2 Emissions That Could Be Reduced By "Wireless Solutions Facilitat[ing] The Purchase Of EVs [Electric Vehicles] In Place Of Even 1 Percent Of Cars Purchased In The United States In 2012." "If wireless solutions facilitated the purchase of EVs in place of even 1 percent of cars purchased in the United States in 2012, emissions would be reduced by more than 70 thousand metric tons of CO_2 annually." Source: BSR, "Advancing Environmental Sustainability in the Transportation Sector: The Role of Wireless Technologies," Commissioned by The Wireless Foundation, http://www.wirelessfoundation.org/Files/Wireless_Transportion_Green_Report.pdf, 11/2013

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