Ford Accelerates Intelligent Vehicle Research, Creating 'Talking' Vehicles to Make Roads Safer

WASHINGTON, /PRNewswire/ -- Ford is aggressively accelerating its commitment to wirelessly connected intelligent vehicles – known as vehicle-to-vehicle communications – becoming the first automaker to build prototype vehicles for demonstrations across the U.S., doubling its intelligent vehicle investment in 2011 and dedicating even more scientists to developing this technology.

"Ford believes intelligent vehicles that talk to each other through advanced Wi-Fi are the next frontier of collision avoidance innovations that could revolutionize the driving experience and hold the potential of helping reduce many crashes," said Sue Cischke, group vice president, Sustainability, Environment and Safety Engineering.

An October National Highway Traffic Safety Administration (NHTSA) report on the potential safety benefits of vehicle-to-vehicle communications estimates that intelligent vehicles could help in as many as 4,336,000 police-reported, light-vehicle crashes annually, or approximately 81 percent of all light-vehicle crashes involving unimpaired drivers. Experts say intelligent vehicles could be on the road in five to 10 years. Ford's demonstration vehicles will hit the road this spring, starting at major technology hubs across the country.

Ford's vehicle communications research technology allows vehicles to talk wirelessly with one another using advanced Wi-Fi signals, or dedicated short-range communications, on a secured channel allocated by the Federal Communications Commission. Unlike radar-based safety features, which identify hazards within a direct line of sight, the Wi-Fi-based radio system allows full-range, 360-degree detection of potentially dangerous situations, such as when a driver's vision is obstructed.

For example, drivers could be alerted if their vehicle is on path to collide with another vehicle at an intersection, when a vehicle ahead stops or slows suddenly or when a traffic pattern changes on a busy highway. The systems also could warn drivers if there is a risk of collision when changing lanes, approaching a stationary or parked vehicle, or if another driver loses control.

After a decade of research, Ford plans a new 20-member task force – consisting of company planners, engineers and scientists from around the world with expertise in safety, eco-mobility, infotainment and driver convenience – to accelerate development of intelligent vehicles with features that provide a range of benefits to consumers. Ford also is doubling its intelligent vehicle research investment, building on the company's SYNC® and MyFord Touch™ innovations. The goal is to define the next 10 years of safety, convenience and driver assistance, and strengthen the company's position as the global industry leader in connected vehicle technology.

"While there are challenges ahead, the foundation of these smarter vehicles is advanced versions of technologies that are pervasive – Wi-Fi and crash avoidance systems that Ford has pioneered in mainstream vehicles today," said Paul Mascarenas, vice president, Research and Advanced Engineering and chief technical officer. "Intelligent vehicles could help warn drivers of numerous potential dangers such as a car running a red light but blocked from the view of a driver properly entering the intersection."

Ford is partnering with other automakers, the federal government, as well as local and county road commissions to create a common language that ensures all vehicles can talk to each other based on a common communication standard.

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