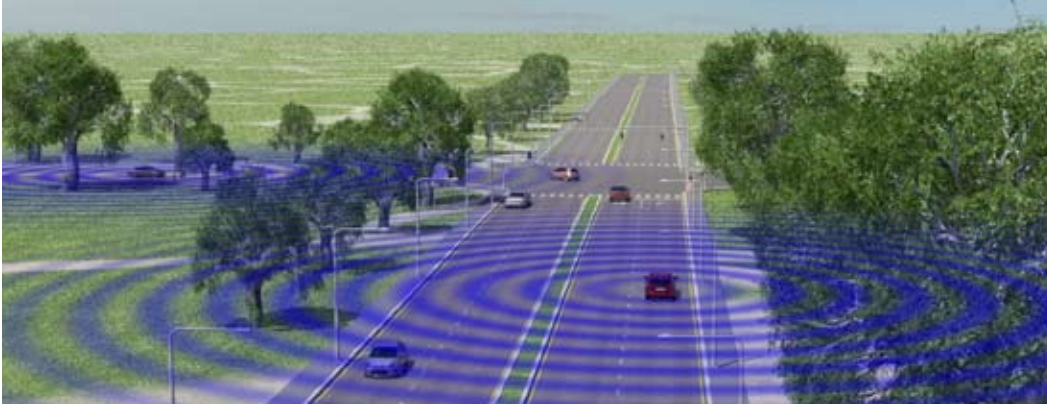




# Intelligent Vehicles

Ford is rapidly expanding its commitment to intelligent vehicles that can wirelessly talk to each other, warning each other of potential dangers to enhance safety and flag impending traffic congestion for more efficient driving. Such a system could potentially help in 81 percent of all police-reported light-vehicle crashes involving unimpaired drivers, according to a National Highway Traffic Safety Administration report.

## Vehicles that can talk to each other



Ford's vehicle communications technology allows cars 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. The Wi-Fi-based radio system allows 360 degrees of detection and can "look" around corners for potentially dangerous situations, such as when a driver's vision is obstructed.

## Expanded safety applications



Intelligent vehicles 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. Drivers also could be alerted if their vehicle is on a 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.

## Paving the way

Many of Ford's current technologies show how intelligent vehicles will be able to help drivers. For example, features that alert drivers to approaching hazards, such as Ford's collision warning with brake support and Blind Spot Information System (BLIS®)



with cross-traffic alert, rely on radar sensors to detect objects close to the vehicle. Ford's unique SYNC® technology and Wi-Fi capabilities could serve as a platform for future communications among vehicles.

## Working together

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

## Green potential

By reducing crashes, intelligent vehicles could ease traffic delays, which would save drivers both time and fuel costs. Congestion also could be avoided through a network of intelligent vehicles and infrastructure that processes traffic and road information. A traffic management center would send this information to intelligent vehicles, which could then suggest less congested routes to drivers.





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## Intersection assistance

Intelligent vehicles show great potential in assisting drivers in hazardous situations, such as intersections where the view is compromised in one or both directions. If the vehicles are able to communicate, the vehicle approaching the intersection will be aware of another approaching vehicle and alert the driver.



## Lane-passing assistance

Intelligent vehicles also could help in lane-passing situations where the view is compromised. If vehicles approaching from opposite directions were communicating with each other, they could warn the drivers of oncoming vehicles, potentially avoiding head-on crashes.



## Alternative routing

Intelligent vehicles could help reduce the billions of gallons of gas wasted in traffic jams each year. Vehicles experiencing road congestion could alert approaching vehicles to a problem by serving as traffic probes and signal their status to a roadside communication unit. These units would send the data to a traffic management center. The center would then report the congestion to other vehicles via advanced Wi-Fi – called dedicated short-range communication – or with cellular or satellite radio signals. The vehicles could use the information to suggest a new route to the drivers.

