

Ford Builds Demo Vehicles That Talk to Each Other

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 5 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 dedi-

cated 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.

This public-private partnership will include the world’s first government-sponsored driving clinics beginning in summer 2011, for which the company will contribute two prototype Ford Taurus sedans.

The DOT’s Intelligent Transportation Systems (ITS) will head the research, continuing to coordinate with a coalition of automakers organized by the Crash Avoidance Metrics Partnership (CAMP), which is a joint research group headed by Ford and General Motors. The partnership is working to develop inter-operability standards in advance of completing the research phase in 2013.

“Ford has laid the groundwork to give vehicles a voice with SYNC and Wi-Fi technology,” said Jim Vondale, director, Ford Automotive Safety Office.

“Now, we’re working with other automakers and government leaders worldwide to develop common standards globally to bring intelligent vehicles to market quicker and more affordably.”

Vondale has been appointed by Transportation Secretary Ray LaHood to represent

automakers on the ITS Advisory Committee. Mike Shulman, technical leader, Ford Research and Advanced Engineering, leads the government-industry technical partnership as program manager for CAMP.

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 would process real-time traffic and road information and allow drivers to choose less congested routes.

According to Texas Transportation Institute’s (TTI) 2010 Urban Mobility Report, traffic congestion continues to worsen in American cities of all sizes, annually wasting nearly 3.9 billion gallons of fuel in 2009 and costing the average commuter \$808 in additional fuel. Leading factors in traffic delays are caused by accidents, breakdowns and road debris, TTI maintains.

“The day is not far off when our vehicles will operate like mobile devices with four wheels, constantly exchanging information and communicating with our environment to do things like shorten commute times, improve fuel economy and generally help us more easily navigate life on the road,” said Mascarenas.

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 vehicles or objects close to the vehicle.

“Ford has pioneered connectivity in modern vehicles with SYNC,” said Shulman. “We believe advanced Wi-Fi for intelligent vehicles could be added to smartphones or GPS systems and simply connect to SYNC like today’s phones.”

Penske Delivers First ‘smart fortwo’ EV to Buyer

WASHINGTON, D.C. – smart USA Distributor LLC, a subsidiary of Penske Automotive Group, Inc., last week delivered the first smart fortwo electric drive to a retail customer in the United States.

Penske Automotive Group Chairman Roger Penske and smart USA President Jill Lajdziak made the ceremonial delivery to Mindy Kimball at her home in Silver Spring, MD.

“We are extremely excited to add the smart fortwo electric drive to the smart product lineup, solidifying our position as a key player in transportation electrification. This is a groundbreaking day for smart in the United States,” said Lajdziak.

Lajdziak is the former Saturn Corp. executive now charged with helping the Penske organization to market its range of smart cars across the U.S.

Mindy Kimball is a 36-year-old early adopter of electric vehicle technology and a Major in the United States Army. Kimball chose the smart fortwo electric drive after thoroughly comparing and evaluating every electric vehicle available because she believes smart’s offering is the most modern electric car on the market.

She has been a volunteer presenter with The Climate Project since 2007, educating the public about the science of climate change and the ways to reduce negative impacts on the environment.

Kimball is also an active member of the Electric Vehicle Association (EVA) of Washington, DC, and she will display her new car in the EVA/DC booth at the 2011 Washington Auto Show. smart USA will have three smart fortwo electric drive vehicles at the auto show including the “Advanced Technology Superhighway” exhibit.

The smart fortwo electric drive is a zero-emission vehicle and the ultimate visual statement on conservation. It is powered by a 30 kW magnetoelectric motor and 16.5 kWh lithium-ion battery. According to the U.S. EPA LA4 test cycle, the smart fortwo electric drive can travel up to 98 miles on a full charge. In combined city and highway driving, the U.S. EPA estimates the range on the smart fortwo electric drive to be 63 miles. Using a 220 volt outlet, it takes only three and a half hours to charge the battery from 20 to 80 percent of its capacity and about eight hours to reach full charge from a depleted battery.

This year, smart USA is strategically placing 250 smart fortwo electric drive vehicles across the United States with companies, municipalities, organizations and individuals interested in making a passionate statement on conservation and environmental awareness. Series production on next-generation vehicles for retail sale through smart USA’s dealer



Penske Automotive Group Chairman Roger Penske and smart USA President Jill Lajdziak made the ceremonial first delivery of a smart EV car to Mindy Kimball at her home in Silver Spring, Md.

network is expected in 2012. Mindy Kimball becomes the first member of “Team 250,” an elite club, featuring a concierge service, for all smart fortwo electric drive lessees.

Each Team 250 member will have personal access to smart USA’s electric drive expert, 24/7 roadside assistance, receive electric drive

communications, and be able to participate in dialogue around their electric drive experience. Members of Team 250 will also have the first opportunity to move into the next-generation smart fortwo electric drive vehicle.

The smart fortwo electric drive is available for lease through participating smart USA dealership locations.

Former GM EV1 Engineer Works on Niche Car Now

by Gerald Scott
Editor
U.S. Auto Scene

Sometimes it’s a niche product that makes a breakthrough that the bigs sometimes can’t pull off.

Richard W. Marks, president of EnVironmental Transportation Solutions of Grosse Pointe Woods, hopes the small, economical EcoV Electric car he’s been working on becomes just such a niche vehicle.

A former GM Tech Center engineer, Marks, 62, brings real world and Big Three-level experience to this endeavor.

Marks had the fledgling EcoV Electric on display at the Green Car Show tied to NAIAS earlier this month, and it was there at the MotorCity Casino ballroom that Marks talked about the project.

“The vehicle is classified as an electric, low-speed vehicle,” he said. “It’s basically designed for city and urban applications where the typical trips tend to be shorter in distance, and slower in speeds.”

“There are two markets we’re looking at: one is the fleets – you look at a city (U.S.) Mail truck, perfect application, they don’t go far, they don’t go fast. (Also), parking enforcement, university campus security, airports, you could go on and on,” Marks said.

“On the private-use side, we’re looking primarily at the retirement communities, resort communities, master-planned communities, but it also does fit some urban family applications. For example, I live in Grosse Pointe, so I would drive the car into Detroit to meet with the Chamber of Commerce or whatever. In and out, 40 miles . . . 50 cents is all it costs me (in electricity).”

“We promote it as being able to go from 25 miles to 40 miles. (For the EcoV), 40 miles is more continuous driving, 25 miles is a lot more stop-and-start,” he further explained.

Marks has an interesting background, having spent most of his mainstream professional engineering career at General Motors.

“I was at GM from 1971 through 1996,” he said. “I started at the Research Labs, then I worked with Current Product Engineering, which was at the Tech Center. Then I formed a group within what was then the ACG (Automotive Components Group) and became Delphi and I worked out in Livonia. Then I left that to come back to GM and worked at the facilities behind Oakland Mall (Technology Drive in Troy, the EV1 program),” Marks said.

“I worked for Bob Purcell, but I worked for Ken Baker (an earlier GM R&D vice president). I was in the vehicle group. The assignment I volunteered for – because they were in deep trouble – was the weight of the vehicle. When I took over the weight, we got 300 to 400 pounds out of it – (but) we brought it in at the target.”

“I have a master’s degree in Mechanical Engineering from Cornell. I was at the Tech Center, I joined the Electric Vehicle program, I did some other program. I view myself kind of as a vehicle guy, I’m an integrator, not a transistor designer,” he added.

Marks, of course, is hoping that the various lessons learned on the EV1 program for GM over a decade ago might still pay off for him in terms of general, non-proprietary applications to his small EV-car project.

“To keep the price down, we’re basically using a sealed, lead-acid, gel-cell battery,” Marks said. “They actually work very well in this application – you could replace the whole battery pack for maybe \$1,000 or \$1,200.”

“You can recharge it at any time, it plugs into a standard wall outlet (120v). A complete charge is 8 hours or less, but anytime you’re out shopping or doing errands like you see an outlet in front of a WalMart or something – you could add about 5 miles of (charging) range for every minute you shop.”

“We’ve been working on this now for about 8 years. I’ve got a group of advisors and teammates that have been helping me on-and-off,



PHOTO: GERALD SCOTT

Former GM Tech Center engineer Richard Marks is now involved with developing the EcoV Electric small alternative vehicle.

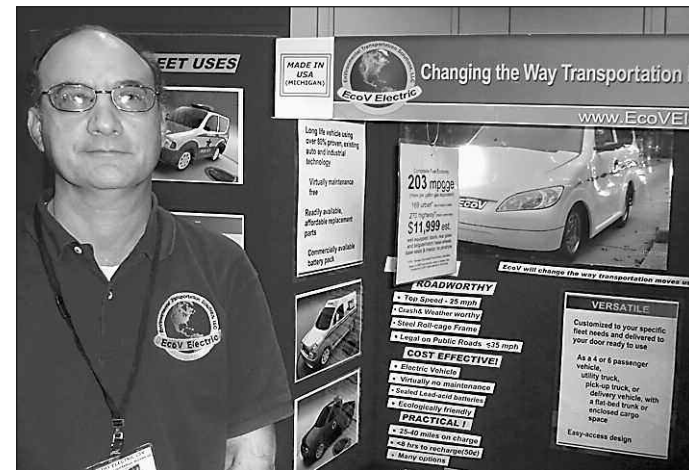


PHOTO: GERALD SCOTT

Richard Marks had a booth promoting his EcoV Electric car as part of the Green Car exhibit at the Detroit auto show recently.

but in order to survive as a start-up, you have to be very lean, so I don’t have 100 people working for me – I leverage a lot of people.

“I have a contract assembler in St. Clair who’s going to assemble the vehicle for me. We’ll share their plant so I don’t need to buy a plant, facilitate it, put people in it.”

“I also have a contract engineering company. And then over 80 percent of our parts are current technology, proven, off-the-shelf, high-volume automotive industrial parts. So basically, it’s excess manufacturing capacity that is just sitting out there that I can buy into – if you understand automotive and how to do that.”

“We’re still in prototype, we did the vehicle about a year ago to put the new styling on it, our proof of concept. But

we modified the frame, put a whole new body skin on it so it looks much more production representative. Our hope was, having one that was ‘production representative,’ we could go out and get advanced orders.”

“We’ve set up the program to grow slowly, so we don’t need to turn on an assembly line to a \$3 billion plant and have to build 60 jobs an hour on three shifts to pay for it. We’re going to build 3,000 units the first year, then we’ll go to 10,000, then ultimately to 30,000. We’re trying to be very economical,” Marks said.

The small, petite-EV vehicle market has never taken off in this country much beyond retirement community type of use, but the right combination of vehicle and pricing might overcome that challenge, auto analysts say.

Report Says Ally Seeking An IPO Offering of Own

By TOM KRISHER
AP Auto Writer

DETROIT (AP) – Ally Financial Inc., the former General Motors finance arm that had to be bailed out by the U.S. government, is meeting with investment bankers this week to pick a team to handle an initial public stock offering, a person briefed on the matter said last week.

The government now owns 74 percent of Ally because of a \$17.2 billion bailout during the financial crisis, and the government wants to get at least part of its money back through a public stock sale.

Ally, of course, was formerly known as GMAC and was GM’s captive finance arm.

Large investment banks are reportedly making pitches to get Ally’s business recently in New York, according to the person, who asked not to be identified because the plans have not been made public. Bankers will make suggestions on the size and timing of the offer, and several are likely to be selected as underwriters, the person said.

Cable news channel CNBC reported Wednesday that the Ally IPO would be in the range of \$5 billion to \$10 billion.

An Ally spokeswoman and a Treasury Department spokesman would not comment on an IPO.

In December the Treasury Department took a step toward setting up Ally’s stock offering by converting about a third of its stake in the lender from preferred securities to common stock. The conversion, designed to make it easier for the government to sell its stake, raised the Treasury Department’s ownership from 56 percent to 74 percent.

Ally, formerly GMAC, still makes loans to GM customers and finances dealer inventories. The government first bailed out the company in late 2008 as part of the Bush administration’s assistance to the U.S. auto industry. The Obama administration invested additional sums in May and December 2009.

The Treasury said Ally has made substantial progress in restructuring. But in January a congressional oversight panel criticized what it called Treasury’s “hands off” approach toward Ally for not always asserting its influence on the timing of an eventual IPO. The department also declined to block GM’s purchase of Texas-based AmeriCredit, even though that finance firm may end up competing against Ally, the panel said.

Ally’s moves toward a stock offering come after several successes in the IPO market. GM, which also received government aid, and TV ratings and consumer research company Nielsen Holdings B.V. each recently have had successful stock sales.

Insurance and financial giant American International Group Inc., another company bailed out by the government, also is moving toward an IPO in an effort to repay government bailout money.

AIG was one of the financial companies hardest hit by the credit crisis and received the largest bailout the government doled out. Its bailout package enabled it to tap as much as \$180 billion in aid. The government received an 80 percent stake in the company as part of the deal.

AP Economics writer Martin Crutinger in Washington, D.C., contributed to this report.