



PHOTO: GERALD SCOTT

Dr. Steve Rouhana, Senior Technical Leader for Safety, Ford Research and Advanced Engineering, discussed developments in digital crash testing at the Safety Innovation Lab last week.

Ford Seeks to Build Digital 'Crash-Test Child' Model

by Gerald Scott
Editor
U.S. Auto Scene

To call Ford's efforts to develop a digital human child body model as "child's play" would be selling this highly technical automotive endeavor short – way short.

Ford crash safety experts gave a media briefing at the Safety Innovation Lab on the Ford technical campus in Dearborn last week to describe progress being made in digital crash test modeling.

Ford announced more specifically that it is beginning research into one of the world's first digital human child body models that could someday serve as a digital

dummy for computer crash testing with a goal of enhancing research of future safety technologies.

"We study injury trends in the field, and we know that traffic crashes are the leading cause of death for people from age 1 to 34," said Dr. Steve Rouhana, Senior Technical Leader for Safety, Ford Research and Advanced Engineering.

"We want to better understand how injuries to younger occupants may be different."

Rouhana and Dr. Jesse Ruan, a researcher in biomedics at Ford, together described the earlier 11-year effort to perfect a digital adult human model and now the upcoming, projected-five-year program

to effectively digitize a child's body for simulated crash test purposes for that audience.

The ongoing work is the next step in Ford's decade-long research to build a sophisticated and detailed computer adult human model, with body parts and organs painstakingly replicated so scientists could better understand what happens to the adult body in a crash.

"Our restraint systems are developed to help reduce serious injuries and fatalities in the field, and they have proven to be very effective," Rouhana said. "But crash injuries still occur. The more you know about the human body, the more we can consider how to make our restraint systems even better."

"A child's body is very different from an adult's. Building a digital human model of a child will help us design future systems that offer better protection for our young passengers."

Meanwhile, note that building a digital model is no sim-

ple task. The work on Ford's adult human body model that started back in 1993 was not completed until 2004 and only then after extensive validations.

Digital models are used in research, not in vehicle development. They don't take the place of crash dummies, which measure the effect of forces on the body. Instead, they are used as a way to understand how to further improve restraint system effectiveness through better understanding of injury mechanisms.

The digital model is constructed component by component – brain, skull, neck, ribcage, upper and lower extremities, etc. – with extensive research included on each part.

"Building the model of a person is just like building a model of a car," said Rouhana. "You start with your surface geometry for each component and any subcomponent

CONTINUED ON PAGE 3

Dependability Aids Lincoln MKZ Hybrid Sales Surge

DEARBORN – Sales of the Lincoln MKZ Hybrid luxury sedan continue to exceed expectations. Having launched with a sales mix of approximately 15 percent within the MKZ model range, sales have continued to track at more than 20 percent since January 2011.

In addition to sales momentum, the MKZ Hybrid is proving popular for its other strengths, including fuel economy and top-rated dependability. No other four-door luxury sedan – gasoline, diesel or hybrid powertrain – can top the MKZ's certified 41 mpg city and 36 mpg highway EPA rating.

Recently, Lincoln received the highest score for long-term durability among all vehicle brands in the annual J.D. Power and Associates 2011 Vehicle Dependability Study, the second-highest performing model for long-term durability in the entire study.

The study asked owners about their experience in the past 12 months with their three-year-old vehicles (for the 2011 study, 2008 model-year cars and trucks were surveyed). Survey respondents were asked to indicate any problems they experienced with their vehicle in the previ-

ous 12 months, choosing from a list of more than 200 issues in eight diverse categories.

The study also shows a strong link between reliability and purchase. Nearly two-thirds (63 percent) of new-vehicle buyers say reliability/durability is one of the most important factors in choosing a new vehicle. Additionally, the study found that fuel economy is among the top 10 purchase considerations.

Lincoln was the first luxury automaker to offer a hybrid vehicle with the same base price as its gasoline counterpart. Both gasoline and hybrid versions of the MKZ have the same suggested retail price of \$34,605.

That's a value equation for the consumer that San Diego Lincoln dealer Ed Witt calls "huge." He has delivered Lincoln MKZ Hybrids to cus-

tomers who traded in other luxury brand vehicles as well as other hybrids. Witt's store has delivered MKZ Hybrids to drivers of Toyota's Prius and Lexus luxury vehicles, and has even taken BMWs in on trade for the car. One family, he said, traded in three cars

and bought two Lincoln MKZ Hybrids.

To date, Witt has sold the most MKZ Hybrids of any other Lincoln dealer in the United States since the vehicle's launch in October.

CONTINUED ON PAGE 5



2011 Lincoln MKZ Hybrid.

Dearborn Mayor Advocates Business Cooperation in CAR Automotive Talk

by Gerald Scott
Editor
U.S. Auto Scene

There were a dozen or more speakers at the two-day Roads to Renewal II conference hosted by CAR at the Hyatt Regency in Dearborn last one, but one of the most interesting came from Dearborn's own mayor, Jack O'Reilly, Jr.

O'Reilly discussed in detail how the city's latter-day relationships with major taxpaying corporations and city stakeholders such as Ford Motor Co., Ford Land, Oakwood Health System and Severstal, the giant steel company with a major presence in Dearborn.

The mayor says that proactive discussions with these entities regarding tax obligations, jobs and other issues is helping to keep Dearborn a vibrant suburb even as many of its neighbors struggle with these same issues.

"The key thing here is that I've had over 20 years experience in workforce development as the Regional Director in this area before taking this

job," O'Reilly said to an audience that included everybody from city managers to industrialists, all trying to figure out how to reinvigorate local economies and add new jobs.

"So I have a lot of respect for what you're doing here. This resurgence is going to be different."

He was referring to the economic downturn of 2008-09, which put many of the old line, industrial suburbs, including Dearborn, into challenging positions because lower home property values have led to lower tax collections, and thus a decrease in services these same cities can provide their business and residential constituents.

Hosted by CAR, the Center for Auto Research in Ann Arbor, the Roads to Renewal II conference, then, was organized to give cities with a heavy dependence on auto-industrial employers a roadmap of sorts to encourage business growth and new jobs – all to help stabilize their respective communities.

O'Reilly's general advice was that instead of taking



PHOTO: GERALD SCOTT

Dearborn Mayor Jack O'Reilly was the welcoming speaker at the CAR/Roads to Renewal II automotive conference at the Hyatt Regency last week.

every corporate citizen in his city to tax court over past and current bills – and evaluations – that he proscribes working with them privately, and in advance, to come to deals and conclusions that can serve everybody's interests together, the city hall government and constituent

CONTINUED ON PAGE 3

Dearborn's Population Rises As Neighboring Cities Decrease

By JEFF KAROUB
Associated Press

DETROIT (AP) – The city of Dearborn is nationally known as the home of Ford Motor Co., the Henry Ford museum and one of the country's most concentrated Middle Eastern communities. Now it can boast of bucking a trend that saw Detroit and most other surrounding communities lose population.

Although the census numbers released last week don't note it, local officials and experts say a rising tide of immigrants from the Arab world

CONTINUED ON PAGE 2

Ford Executive Talks 'Job Retention'

by Gerald Scott
Editor
U.S. Auto Scene

Ford's Curt Magleby, director of State and Local Government Relations for the Dearborn automaker, had some key insights at the Roads to Renewal II auto industry conference held at the Hyatt Regency last week.

There, he quoted the mantra he learned from his boss, Ford CEO Alan Mulally, that "the data shall set you free."

In auto terms it means that if you're willing to embrace cold, hard sales figures and other impersonal metrics that guide the auto industry, one can advance forward. No matter how painful, the numbers are always insightful if one reads them honestly and correctly and reacts accordingly.

This was notable because

the Center for Auto Research (CAR) in Ann Arbor hosted this major two-day car conference to help give automotive and industrial cities – including Dearborn – something of a roadmap to return to prosperity following the national economic upsets and auto industry downturns of 2008-09.

Magleby was the senior Ford representative at the big and busy car conference.

He was asked if the state of Michigan's tax break and other incentives were on par with what is current nationally.

Magleby allowed that perhaps Michigan has been caught in a cycle of trying to keep recruiting new - new - new jobs, but perhaps at the expense of retaining and growing the old - old, so to speak.

"Reinvestment is what you have to do to be competitive

globally in manufacturing," Magleby said. "Same with job retention. So I do think Michigan is the leader."

"We've used Michigan's toolbox and expanded it to Kentucky. . . and there was recent (pro-Ford plant) legislation passed in Missouri that never had a job retention initiative."

This all comes under the recent title of the buzz phrase "economic gardening" such that civic leaders should be just as mindful of watering, cultivating and growing its legacy businesses as much as constantly trying to steal other states' businesses or otherwise encourage entrepreneurs to start from scratch here.

Magleby said Michigan has improved its approach in this regard and major industries

CONTINUED ON PAGE 5

Ford Monthly Sales Up 19 Percent Over Earlier

DEARBORN – Consumer demand for Ford's fuel-efficient vehicles continues to grow as March sales increased 19 percent versus a year ago. Year-to-date, Ford sales totaled 496,720, up 16 percent.

"With gasoline prices eclipsing \$3.50 a gallon, consumers are placing a high priority on fuel efficiency in every size and kind of vehicle," said Ken Czuby, Ford vice president, U.S. Marketing, Sales and Service.

"Customers are rewarding Ford for our investment in new products as well as more efficient engines and transmissions, which save them money at the pump whether they drive Fiestas or F-Series trucks."

In March, total sales were 212,777, up 19 percent – which means that Ford actually outsold GM for the month of March as Ford's crosstown rival reported monthly sales of 206,621. Ford bested GM by about 6,000 units.

Meanwhile, Ford retail sales were up 14 percent and fleet sales were up 29 percent (commercial was up 50 percent, government was up 33 percent and daily rental was up 13 percent).

In the first quarter, total sales were 496,720, up 16 percent. Retail sales were up 20 percent and fleet sales were up 8 percent (commercial was up 34 percent, government was up 11 percent, and daily rental was down 8 percent).

Two independent market research studies cited the growing strength of the Ford brand in March. Ford was named the most considered auto brand among new-car shoppers in Kelley Blue Books' Market Intelligence Brand Watch study, and Ford was named top full-line auto-

motive brand in the 2011 Harris Poll EquiTrend study.

"Our newest products are helping Ford to connect with customers beyond our traditional geographic areas of strength," said Czuby.

"In the first quarter, our largest retail sales increases were on the west coast and in the northeast with major contributions from the Fiesta and Edge. We believe the new Focus and Explorer will help us to achieve further growth in these and other key markets as even more customers look for fuel-efficient, high-quality vehicles with technology they truly value."

Ford says it offers 12 vehicles that lead their sales segments in fuel economy, including four vehicles with EPA certified 40 mpg or higher fuel economy ratings – a claim no other full-line automaker can match.

Ford's new Fiesta set a record in March as monthly sales reached 9,787, up 56 percent from February.

Meanwhile, Fiesta's retail share of its segment has increased every month since it was introduced last summer, and Los Angeles continues to be the No. 1 sales region for Fiesta.

Fusion also set a new record with sales of 27,566, up 21 percent versus a year ago.

The Ford Mustang (up 47 percent) and Lincoln MKZ (up 28 percent) also posted higher sales than a year ago. Sales of the MKZ Hybrid reached a record 615, accounting for 20 percent of MKZ retail sales.

Total Focus sales were lower than a year ago (down 12 percent) as the all-new model is just starting to arrive at Ford dealers, but the nameplate's retail sales were up 16 percent.



PHOTO: GERALD SCOTT

U.S. Rep. John Dingell, center, was clearly the center of attention prior to his kickoff talk to the Center for Auto Research's "Roads to Renewal II" car conference at the Hyatt Regency last week.