## **Continental Sees Partial Automated Driving by 2016**

by Jim Stickford

Technology is not only changing the cars we drive, but in the near future will change how we drive cars.

Brad Jackson, director of communications, NAFTA region for Auburn Hills-based auto supplier Continental, said that one of the things he noticed at the 2013 North American International Auto Show is that everyone is in the hunt for a working automated driving system.

This is a huge deal," Jackson said. "We truly believe that it's the future of transportation. We see a partial automated driving system by the year 2016.

"Partial, in this case, means 'traffic jam assistance.' Say you're on a freeway and it's stopand-start traffic. You go from 30 mph to zero, back to 30. The autonomous tech would operate the car for the driver."

That limited system, Jackson said, would work via a combination of sensor technology. There would be forward radar that would tell what was ahead and behind the driver's vehicle. A lateral sensor using lidar (lightbeam technology) would sense vehicles on either side of the driver's car.

"I have to emphasize that even with this sophisticated technology, there will always be a need for a driver in the driver's seat." Jackson said. "What I'm talking about should really be called a semi-automated driving system.

"It would work similar to cruise control in that the driver would determine when and where to use the system. I believe that this would really take a lot of stress off the driver. When you're in stop-and-start traffic, it can be nerve-wracking.3

Jackson said that right now Continental at Auburn Hills is working

in conjunction with a team in Germany to make this technology possible. Much of the technology and architecture is already in modern cars. He said he doesn't know about the legal issues.

"We're not out to make laws, we're out to make the technology work," Jackson said.

He said that Continental is already in the testing phase. The company just received permission from Nevada's DMV to test the company's system in that state.

"This is not as futuristic as people might think," Jackson said.

"Adaptive cruise control is already a fact of life and is out in the marketplace. That tech helps keep the distance between you and the car ahead of you. What Continental is able to do

is integrate this tech with some

new tech and make it all work together to develop the reality of semi-automated driving possible within three years."

That's just the start, Jackson said. He expects that by 2025 fully-automated driving technology will be possible.

"That would include things like highway driving at speeds of 70 mph," Jackson said.

"We feel that is possible by 2025 and that it's important not because it's neat technology but because it will make driving safer and save lives.

"But I want to say, even with the most sophisticated technology, we feel there will always be circumstances where the driver will have to take over the driving. The driver will always be responsible, no matter what tech is in a car."

ciency from cars and trucks.

Volkswagen is showing a plug-

in hybrid SUV prototype called

the CrossBlue that mates a diesel

engine with two electric motors.

It can travel 14 miles in all-elec-

tric mode and gets an estimated

35 miles per gallon while running

on both gas and electricity. The

Jeep Grand Cherokee is also

making a jump to diesel power with a new, optional 3-liter V6

higher fuel economy require-

ments, even in muscle cars. The

eight-cylinder engine on the 2014

Corvette kicks down to four at

highway speeds.

## **Auburn Hills Auto** Supplier Key to **Engine Successes**

For 19 consecutive years, Continental, a leading global automotive supplier with its North American headquarters based in Auburn Hills, has provided key powertrain technologies to the winners of the Ward's 10 Best Engines competition.

For the 2013 model year, eight of the Ward's "10 best" engines feature Continental technology. This selective group of engines is determined by the editors of WardsAuto magazine.

Together, they test drive a myriad of vehicles, ranking the horsepower, torque, observed fuel economy, relative competitiveness and NVH.

'We are extremely pleased to see that once again Continental's powertrain technologies have contributed to our customers success," said Kregg Wiggins, senior vice president, powertrain. North America.

"Our goal is to provide propulsion systems that are safe, powerful. environmentally friendly and affordable - and this year's engine list demonstrates that ability.

The engines in the WardsAuto list feature a number of Continental's advanced engine technologies, including engine management systems, sensors and actuators.

The Ward's 10 Best Engines featuring Continental technology include the Audi S5 3.0L V-6 Engine, the BMW 135is 3.0L N55, the Ram 1500 3.6L V-6, the Honda Accord 3.5L V-6, the BMW 328i 2.0T, the Ford Focus ST/Taurus 2.0T, the Ford Shelby GT500 V8 and the Cadillac ATS 2.0T.

## **Alternatives Are Replacing** Salt for Snow Removal

by Darrett Pullins

Winter always provides some of the most challenging driving conditions in Michigan. One of those challenges is snow.

What seems to concern drivers most is how quickly the snow is removed so the roads are drivable.

What goes into the removal of snow?

Of course, snow plows. But what about beet juice?

Beet juice probably conjures up a thought of a sticky substance, like sugar, which would do anything but melt snow.

However, the combination of salt and beet juice help to lower the melting point of ice, therefore facilitating the removal of snow by city and county road crews.

Fortunately for the state, Michigan is a major grower of sugar beets, which is used in the production of table sugar.

Unfortunately, according to Rochester DPW foreman Jack Crowley, although the product has been used the past few years, it's no longer economical. This year, the liquid juice has reached \$4 a gallon, where the alternative eco-friendly product is about 90 cents a gallon.

Beet juice, a by-product of sugar production from the sugar beet, has a few applications, but none as beneficial to the auto industry as a product for helping in the reduction of corrosive salt on streets and roadways.

**RANCH HOUSE FOR RENT** Located: 13 Mile & Ryan process of eating away at automobiles, cars, buses, and trucks, which eventually costs us.

Bill Bohlen, Rochester's director of Public Works, has been a proponent of alternate methods of snow removal.

Last year, by Crowley's estimate, the city used 100 gallons of beet juice, in conjunction with calcium chloride, to facilitate snow removal.

The mixture of salt and juice were used on city streets when temperatures fell below 21 degrees Fahrenheit, as regular rock salt's efficacy falls off around that temperature.

The lack of snow last year did not allow the city to use the mixture much, but Bohlen estimates the usage of the beet juice and calcium chloride mixture reduced the use of salt by 15 percent for years 2010-2011.

Most of the surrounding counties. such as Macomb, Lapeer and Washtenaw, and even now the city of Rochester, use an alternative to beet juice.

Some county road crews use a combination of readily available calcium chloride, along with regular rock salt, to clear the roads.

Other county crews use a new combination of salt and an environmentally friendly product to reduce salt usage.

The new mixture used on roadways is a proprietary derivative of vegetable oil.

plays.

newest, a chiseled pickup truck concept called Atlas that could become the next F-150. General Motors can just sit back and watch the crowds gather around the Corvette.

country's biggest, opens to the public Saturday. One lesson from this year's show: There are plenty of ways to squeeze more effi-







## NAIAS Debuts 59 Vehicles

DETROIT (AP) – Maybe it was the brand new, bright red Chevrolet Corvette gleaming in one corner, or the elegant BMW coupe in the other. Maybe it was just the free-flowing espresso at nearly every stand. But car companies were positively giddy this week as the North American International Auto Show opened in Detroit.

They have reason to be. U.S. new car and truck sales reached 15.5 million this year.

Credit is easier to obtain, interest rates are low and many people who held on to old cars during the recession are ready to buy.

To catch those customers' eyes at the Detroit show, car companies are unveiling 59 new cars and concepts. That's up from just 41 in 2012, a sign that automakers have more profits at their disposal and expect higher sales.

Toyota, Nissan and Mercedes have larger, more elaborate dis-

Ford is luring visitors with the oldest surviving Ford in the world, a 1903 Model A, and the

The Detroit show, one of the

diesel that gets 30 miles per gala five-year high of 14.5 million in lon on the highway, five better 2012, and many executives and than the gas-powered V6. analysts think they'll climb to Automakers are trying other tricks to save fuel as they face