

DRIVEN BY INNOVATION

The future of the automobile industry is being shaped by advances in everything from clean-car technology to mobile apps. It's a new world for consumers.





GEARING UP FOR CHANGE

Looking ahead to 2012 and beyond, U.S. automakers are on the right road, making the most of new technology.

RESILIENCE. IT'S THE STORY OF 2011—not just the 10th anniversary of 9/11 but the earthquake and tsunami in Japan, the numerous natural disasters across the United States and the massive fissures in the American and global economies that are stifling the job market and wreaking havoc on consumer savings and spending.

Resilience is also the story line of the automobile industry. Despite the economic and natural forces conspiring against it, the car industry's fortitude continues to be built as much upon innovation as on the sweat and hard work of America's auto dealers. Indeed, while corporations nationwide hoard cash and refrain from investing and hiring, automakers are releasing new products, opening new plants and hiring more workers. A total of 66 new dealerships opened this year, and new-vehicle sales per dealership are expected to rise in 2011.

Because of wildfires in Texas, tornadoes in Missouri, and the damage Hurricane Irene brought to the East Coast—not to mention epic snowfall and flooding—dealerships, along with many of their customers, have found themselves underwater, literally and figuratively. Nonetheless, not only are America's car dealers and dealerships on the comeback trail, they are also often first in line when it comes to community recovery.

"The best way to survive a downturn is to be prepared," says Charles (Chip) Miller, president of Miller Ford Lincoln in Mount Holly,

N.J., and a finalist for the national TIME Dealer of the Year award for 2011. "You need to be well-capitalized, not over-staffed and have a productive company."

"As September sales were underway, the supply of vehicles from Japan had not yet recovered to the 55 or more days' supply needed to support robust new-vehicle sales," says Paul Taylor, chief economist for the National Automobile Dealers Association (NADA). But, he adds, "the Detroit

Three brands are near the 60 days' supply level necessary to support robust sales for these brands."

Consumers across the U.S. are playing a leading role in the industry's recovery too, responding to automaker innovation and advancements and seeking out newer,



better, smarter and ever more fuel-efficient vehicles. Says Miller: "We are seeing an increase in the number of older, high-mileage cars. It appears that people have reached the point where they need to trade in their old, tired cars. The spike in gas prices has also encouraged people to buy a more fuel-efficient car."

"Throughout the industry," says Florida dealer Tom Castriota, "manufacturers with new product offerings are adding to the increase of the market." But Castriota adds: "There are still two types of buyers: those who need to buy and those who want to buy something new. The current economic environment is preventing buyers who want that new car from buying." And yet, he says, "like everything in our business, it is about value, styling and a stronger awareness of fuel economy."

THE GREEN REVOLUTION

From Asia to Detroit to Europe, cars are slimming down. Every detail, part and ounce of excess weight in today's vehicles is scrutinized, as automakers of every nationality embrace the future—a future of clean-car tech, energy efficiency and design innovation aimed at maximum performance. What's driving the intense focus on clean and green? Two successive and dramatic fuel-efficiency standards announced by the Obama administration in the last two years. First, the 2009 mandate for a Corporate Average Fuel Economy (CAFE) of 35.5 mpg by 2016. Then, in July, President Obama announced the new CAFE standards for vehicle fleets: 54.5 mpg by 2025, representing the largest mandatory fuel economy increase in history.

The menu of slimming innovations ranges from lighter materials and sleeker aerodynamics to sophisticated computer chips and programmable electronic control units, to the absence of a spare tire. For now, says Miller, "most people care about clean air and the environment, but I do not believe this drives the decision-making process for most consumers." His customers—like most—still react to the price of gas at the time they are shopping. "When gas spikes up," he says, "the interest in hybrids goes up."

The inaugural J.D. Power & Associates U.S. Green Automotive Study, released last spring, examined attitudes of U.S. consumers toward four key alternative power train technologies: hybrid electric, clean diesel, plug-in hybrid electric and battery electric. "Alternative power trains face an array of challenges as they attempt to gain widespread acceptance in the market," says Mike VanNieuwkuyk, executive director of global vehicle research at J.D. Power. "It is the financial issues that most often resonate with consumers, whether it is the higher price of the vehicle itself, the cost to fuel or charge the vehicle, or the fear of higher maintenance." Consumers want to be green, he says, but not at the risk of significant personal cost.

In spite of that cost, WARD'S, the auto industry data and analysis firm, pegged U.S. sales of alternative-power-source light vehicles from January through August

From lighter materials to sleeker aerodynamics, cars are slimming down and going greener.



DEALERS WHO MAKE A DIFFERENCE

WINNER- FREEDOM FIGHTER
TOM CASTRIOTA, HUDSON, FLA.



In a year of resilience, the 2011 national TIME Dealer of the Year, Tom Castriota of Castriota Chevrolet in Hudson, Fla., epitomized the award that has honored new-

car dealers for extraordinary community service for 43 years. After retiring as a U.S. Marine Corps lieutenant colonel in 2001, from 2006 through 2007 Castriota was recalled to active duty at age 53 in support of Operation Iraqi Freedom. Earlier this year, Castriota continued his mission closer to home. "The dealership completed a six-month cancer awareness and fund-raising campaign for the local chapter of the American Cancer Society," he says. The effort culminated in a 24-hour walk-a-thon that raised \$12,000.

FINALIST-CHAMBER STAR
RICK JENSEN, NEW ULM, MINN.



"It has been one of the greatest experiences I have had in my business career," says Rick Jensen, president of Jensen Motors, a Buick, Cadillac and GMC dealership in

New Ulm, Minn., about being named a finalist for the 2011 TIME Dealer of the Year award. Jensen, who served the New Ulm Chamber of Commerce with distinction for years, says, "When business is tough, it is most important that we do our best to take care of the customers we have."

2011 at 159,463 total light cars, including hybrids, electric vehicles (EVs) and fuel-cell vehicles. That total represented a 6.3% increase over the same period a year ago. Add another 20,793 light trucks for a total of 180,256 alternative power source light vehicles during that time. In fact, in late September, Nissan announced that it had sold its 7,000th all-electric LEAF. The future is gaining on you, pulling up right alongside. You might not hear it. But it's there to see.

In 2010, the combined production of consumer hybrid and electric vehicles totaled about 1.15 million worldwide. In 2016, according to ABI Research's forecasts, global production will approach 4.9 million. "The big change in the market in 2011 is the introduction of plug-in hybrids and pure electric vehicles from major manufacturers such as GM, Nissan and Mitsubishi," says ABI Research principal analyst David Alexander. "However, initial cost is still an issue for both hybrid and electric vehicles despite the considerable government incentives offered in many countries."

And when it comes to clean-car tech, Minnesota dealer Rick Jensen has the clear-eyed view of a Midwesterner: "People need to have a vehicle that fits their needs. They need to tow boats, campers and trailers and fit the family. Hockey families cannot fit in a subcompact. Farmers need trucks. That does not mean they do not care about clean air. Everyone cares about clean air. Most want a balance of responsible care of the environment and quality of life."

ELECTRICS COME OF AGE

When futuristic GE WattStations began showing up in ads in mainstream media in the summer of 2010, touting that "it's going to change the way we get to where we all want to go," the vision of a smart grid began to come into focus. Could we really get from Point A to Point B and back in an EV? GE's ads showed us how. Then, last spring, in a report on the convergence of EVs and smart grids, David Leeds, senior manager of smart grid research at Green Tech Media Research, wrote, "This year marks a turning point for electricity as a transportation fuel for passenger vehicles. Automakers are sending electric vehicles to market, with global penetration forecast to increase more than fivefold by 2016. The implications for

159

Hybrid and electric-vehicle models available for purchase in the U.S. market by the end of 2016, up from 31 in 2009

—J.D. Power and Associates
2011 U.S. Green Automotive Study

electric power players and utilities are enormous."

The implications for consumers are enormous too. And yet, while many feel EV cost and performance are beginning to catch up to the hype, Nick Plakoris, auto industry expert and executive director of research and insights at Time Inc., says, "General acceptance still comes up against cost and ease of use." The research bears him out. According to J.D. Power, driving range

and availability of charging sites away from home—otherwise known as "range anxiety"—are the two chief concerns of consumers when considering electrics and plug-in hybrids. But thanks to emerging technologies, says Plakoris, "I do think we're moving in that direction."

The good news is that the federal government has developed a road map to catalyze a boom in the electric-car industry. The Department of Energy plans to boost investment in transport research to help spark a renaissance in the sector. Right now, the agency devotes 9% of its \$3 billion budget to vehicle electrification, but the DOE plans to

A FOUNDATION OF GOOD

IN EARLY SEPTEMBER, when Scholarship America hosted an "Evening of Remembrance" in New York City to thank those who contributed \$1 million or more to support the educational needs of 9/11 families, the National Automobile Dealers Charitable Foundation (NADCF)—one of the first donors—was there.

"This is a night to recognize the generosity of America," Scholarship America president and CEO Lauren Segel told the gathering. Within days of the attacks, Scholarship America established the Families of Freedom Scholarship Fund so sons and daughters

who lost a father or mother, or whose parent suffered permanent disability, could continue to further their education. Since

2001, the fund has provided \$74 million in scholarships to nearly 2,000 students. Roseanne Hughes, whose firefighter

husband died at the World Trade Center, said, "Without your generous and unselfish support, my two children, Ashley [now a CPA with a major accounting firm] and Patrick [a college junior], would not have been able to go to college."

NADCF chairman Bob Mallon spearheaded NADA efforts to raise donations for children of 9/11 victims by creating a Survivors Relief Fund that generated \$1.6 million in a matter of weeks. Says Mallon: "Scholarships restore hope in the future."



NADA Foundation chairman Bob Mallon with, from left, Ashley, Roseanna and Patrick Hughes, recipients of aid from Scholarship America and the National Automobile Dealers Charitable Foundation.

AUTO INSURANCE 2.0

Snapshot, a revolutionary, first-of-its-kind program from Progressive, offers customers the chance to create personalized car insurance rates based on their actual driving habits. Driving less, driving safely—and at safer times of day—could earn drivers discounts of up to 30%.

The Snapshot device plugs into a car's onboard diagnostic port, and its sleek design houses the latest in telematics and mobile technology, enabling drivers to share their safe driving habits with Progressive. Snapshot is a game changer that puts insurance squarely at the intersection of today's interconnected world.



PROGRESSIVE®

increase its spending and resources across the board to the electrification of the light-duty fleet. The ultimate goal is to offer consumers a host of options in the marketplace—from plug-in hybrids to battery-electric to fuel cell vehicles as the endpoint for electrification.

"Today, our nation is at a crossroad," writes Energy Secretary Steven Chu in a message accom-

3 MILLION

Charging stations forecast worldwide by 2016, up from 20,000 in 2010

—ABI Research

panying the inaugural *Department of Energy Quadrennial Technology Review*, released in late September. In the very near future, as car design continues to focus on a cleaner, greener driving experience, it's going to get easier, and much more affordable, for consumers to steer their buying decisions towards a sustainable future. ●

THE AUTO REBORN

A snapshot of the array of green car options available at a showroom near you.

VEHICLE TYPE	CAPABILITIES	KEY ATTRIBUTES	ELECTRIC RANGE*	BATTERY CAPACITY*	FUELING OPTIONS
MILD HYBRID† (HEV)	Allows vehicle engine stop/start, may allow electronic assist of engine during propulsion	ICE required for all propulsion	0	small	Gasoline, does not plug in
STRONG HYBRID† (HEV)	Engine and electric drive used in combination to meet propulsion demands, batteries charged through regenerative braking, engine	Can be driven on electric power over very short distances	<1 mi.	<1 kWh	Gasoline, does not plug in
PLUG-IN HYBRID (PHEV)	Uses electric propulsion alone for all-electric range, then switches to HEV power management*	Charges via the electrical grid	15–40 mi.	5–15 kWh	Gasoline, 120V wall outlet (3–10h), or 240V home charging station (1–4h)
FUEL-CELL ELECTRIC VEHICLE (FCEV)	Always electric propulsion, no ICE; energy is stored in the form of hydrogen, which is converted to electricity via a fuel cell	Requires a hydrogen fueling source	>250 mi.	N/A ("Electric Range" is on a full tank of hydrogen)	Fueling station (5 min.)
ALL-ELECTRIC VEHICLE (AEV)	Always electronic propulsion, no ICE; energy is stored in batteries	Requires high power charging for daily use	80–250 mi.	35–55 kWh	120 V wall outlet (20h), 240V home charging station (10h), or DC fast charging (30 min.)

† Both mild and strong hybrids are referred to as hybrid vehicles.

* Typical of today's vehicles; could increase for PHEV/AEV as batteries improve.

• Utilized battery capacities.

• Some PHEVs use the engine to recharge the battery; these can be referred to as "extended range."

SOURCE: QUADRENNIAL TECHNOLOGY REVIEW, SEPTEMBER 2011, DEPARTMENT OF ENERGY

THE NEW POWER TOOLS

Advances in technology are helping to develop a new class of empowered automobile consumers.



THE DYNAMIC EVOLUTION and mass adoption of mobile devices and apps is unleashing an unprecedented wave of consumer and driver empowerment. From simple applications that help you find the least expensive gas near you—think GasBuddy, Cheap Gas!, GasBag and Yellow Pages—to countless navigation gadgets and driving apps that help get you there faster and cheaper, with less

traffic, less idling and less hassle, digital tools are changing the very nature of driving.

At the same time, the up-to-the-instant data in smartphones, tablets and other newfangled mobile devices are putting information in the palm of customers' hands, transforming the age-old customer-seller relationship by empowering consumers like never before and changing the traditional auto dealership give-and-take. Industry experts say it's all a net positive. "The better informed the consumer is when he or she walks into the showroom, the faster the transaction takes place and the more likely the customer is going to be satisfied," says David Hyatt, vice president and chief public affairs officer at NADA.

J.D. Power's Online Auto Shoppers study, released in June, revealed that more than three-fourths of new-vehicle buyers use the Internet in their vehicle shopping process. Despite this digital reliance, the role of the dealer remains paramount. "There is no question that consumers are better prepared and more knowledgeable of the cars that they want to buy," says dealer Miller. "However, buying a car is more than just picking out the model you want and determining what you have to pay for it. State and federal government regulations, trade-ins, and financing create a complicated transaction. Most customers seem to want a relationship with a dealer for service and to receive training in the use of their car. Our business will continue to evolve. Those dealers that provide the consumers ownership experience and service they are looking for will thrive."

With an iPhone or Android smartphone, an iPad, BlackBerry or the newest tablet coming down the pike, tapping into the latest apps or mobile sites on the go and in the heat of the new-car purchase process can turn the buyer into a veritable data bank of inventory information, reviews, price quotes, features and specs. From established names or upstarts, some of the car-shopping apps to consider today include Edmunds, Cars.com,

KBB.com, Car and Driver Buyer's Guide, Car Factor, CarsFinder, AutoTrader.com, TrueCar and CarWoo—and don't forget My Car Payment, Car Payment Calculator, or even GrooveCar, which helps credit union and potential credit union members facilitate new and pre-owned car buying, selling and financing.

More than three-fourths of new-vehicle buyers use the Internet in their vehicle-shopping process.

— J.D. Power's Online Auto Shoppers

"It makes for an educated consumer," says dealer Castriota. NADA economist Taylor goes a step further: "It underscores the need for salespeople to be better informed. They spend more time talking about the technologies and attributes rather than financials and price

issues. The customer may come in knowing the range of options and now wants to see them demonstrated. It makes it a more efficient and satisfying experience."

Even so, apps can't replace good, old-fashioned service, which means it's still all about kicking the tires. Says Plakoris: "Today, the showroom is a whole new

experience—with touch, test-drives, kiosks, one-on-one perspective, and being able to meet with the dealer who is putting it all together—from sales to finance and insurance to service. They take you on a tour of the service center; you meet the service guy, the parts guy, wait in their restaurant; there's a place for the kids. You can't do all that on a mobile device." ☉

Mobile apps give customers the latest product information so they can make smart buying decisions.

