

Subcompact Crossovers

any automakers have jumped on the subcompact crossover bandwagon, making it one of the fastest-growing segments in the market

It's easy to see why. Even with fuel prices at a very affordable level in 2016, American consumers are looking for more versatility and fuel efficiency from their vehicles. They also are looking for plenty of space for hauling their groceries or even luggage for a road trip.

Enter the subcompact crossover. An SUV body on a car platform, crossovers offer plenty of cargo space without compromising fuel efficiency. This balance leads to a more versatile vehicle that is perfect for individual drivers and small families.

SMOOTH RIDES

Because crossovers are built on car platforms rather than the body-on-frame construction of many larger SUVs, they are much smoother to ride in and drive. Better handling and more enhanced suspensions are a couple of noticeable differences between a crossover and regular-sized SUV.

Crossovers can still haul heavier loads than a car without being limited by the more rugged suspension systems of the common SUV. If you're looking for an in-between option, a crossover is for you.

FUEL & FUN

Crossovers are much light-



cle

er than traditional SUVs,

are not much larger than

what you'll find in a mid- to

large-sized car, helping carry

efficiency benefits that come

over some of the same fuel

with driving a smaller vehi-

making them more affordable

to drive when it comes to fill-

ing up the tank. Their engines

And don't forget about the extra perks that many automakers are able to build into your crossover. Options include a refrigerator in the second row and a rear-seat DVD entertainment system. With these types of additions, the crossover is cornering the

market on efficiency, style and comfort.

MORE PASSENGERS

Crossovers are obviously designed to be smaller than a regular SUV, but many still feature seating room for as many as seven people in three rows.

The SUV-style body gives them extra length that many automakers have converted into seating space.

This additional legroom makes crossovers great options for your next road trip across the country or even for a trip across town for a soccer game.

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New Transmissions

I ust as technology has impacted the driving experience, it also has played a major role in revolutionizing how the various mechanical parts of your car operate.

The transmission — which provides a range of gear ratios that enable quick acceleration and limited wear on engines — has undergone a facelift over the past few years in terms of performance and structure.

Here are the most common types of transmissions that have gear-heads everywhere talking:

CONTINUOUSLY VARIABLE TRANSMISSION (CVT)

CVTs actually use a belt that runs between two variable-diameter pulleys instead of using the more traditional gears. This pulley system provides a wide range of ratios and a smooth transition between them, helping the engine stay at its most efficient speeds while the transmission adjusts to load or road changes.

Some CVTs use a fluid-filled torque converter to transfer power from the engine, while others use a clutch that you find in manual transmissions. Since CVTs rely on friction between the belt and pulleys, they are somewhat limited when it comes to how much load they can handle. You'll find these types of transmissions in the V6 engine range, but technology is advancing to allow them to work with larger engines, as well.



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AUTOMATED MANUAL

The automated manual transmission has been influential in how engines are built. The transmission works when the clutch and shift actions are carried out by computer-controlled, electronically activated mechanisms.

This means they don't

require driver interaction, but unlike a conventional automatic transmission, they also can be shifted manually.

Automated manuals are more efficient than conventional automatics because there is no loss from driving an internal hydraulic pump. This leads to a smooth ride without any jerky shifting.

DUAL-CLUTCH AUTOMATED MANUAL

One step up from the automated manual is the dualclutch variety, which features two gear shifts. The first set controls the odd-numbered gears while the other controls the even numbers. These transmissions work by preselecting a gear before the clutch is engaged.

This allows for more power and a more seamless operation compared to the CVT and the simpler automated manual. Dual-clutch transmissions are crossing over from performance cars into the standard car market because of the power and ease of driving they produce.

Active Safety Features

rom your headlights to your steering system, driver safety has become the point of emphasis for car design engineers and manufacturers.

With the onset of more sophisticated technology, we are likely to see even more advancements in the next few years.

Active safety features are important to drivers because of the growing number of cars on the road. We want to be protected in case of an accident and appreciate any help we can get in terms of prevention and responsiveness.

ELECTRONIC STABILITY CONTROL

Electronic stability control systems can selectively apply the brakes to help keep the car under control in many situations. A car equipped with electronic stability control can improve a car's stability in a variety of conditions. If the system detects a loss of steering control, it strategically applies the brakes on individual wheels to help in steering.

According to the National Highway Transportation Safety Administration, consumers in the used-car market should place a premium on this type of safety option when purchasing their next vehicle.

The NHTSA estimates that electronic stability control technology will save between 5,300 and 9,600 lives and prevent 156,238 injuries each



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year once all vehicles on the road are equipped with these systems.

REAR-VIEW CAMERA SYSTEMS

Blind spots are one of the most common complaints of today's drivers. We want to be

able to see clearly around both sides, as well as in front of and behind our vehicles. Automakers have addressed driver concerns by developing rearview camera systems that help drivers back up while clearly seeing things or people that may be behind the vehicle.

This technology is a benefit to drivers in both highly populated cities and more rural areas, helping keep drivers more in tune with what's around them. The NHTSA estimates that there are an average of 292 fatalities and 18,000 injuries each year from back-over crashes.

The government has called for all new motor vehicles sold in the United States weighing less than 10,000 pounds to have rearview cameras installed as a basic feature.

The Gas Price Boost

hile consumers are enjoying the lowest gas prices we have seen in years, makers of trucks and SUVs also look to be benefiting in terms of new sales.

A 10-percent boost for both types of vehicles occurred in 2015, according to sales tracker Autodata.

That's a large jump within a competitive automotive market that also features plug-in electric and hybrid technology vehicles. So what's the science behind lower prices increasing the popularity of trucks and SUVs? Financial experts point to the prices leaving more room in consumers' budgets to buy more expensive vehicles than they may otherwise purchase. Trucks and SUVs starting in the \$30,000 range may be more in reach considering the reduction in gas prices.

ON THE UPSWING

New trucks and SUVs are flying out of dealerships. In November 2015, sales of Ford F-series pickups rose 10 percent, making for the best November for truck sales in eight years.

Additionally, Chevrolet truck sales rose for the 20th consecutive month in November 2015. The company reported that Suburban sales jumped 31 percent, Tahoe sales gained 17 percent and Silverado sales gained 4 percent.

Another reason for the increase in truck popularity? The housing market is also on the rise, meaning more homeowners and contractors need enough truck to haul large equipment and tools.

As coinciding oil prices also dropped multiple percentage points in the past year, the home construction market is at levels not seen since before the Great Recession. This connection



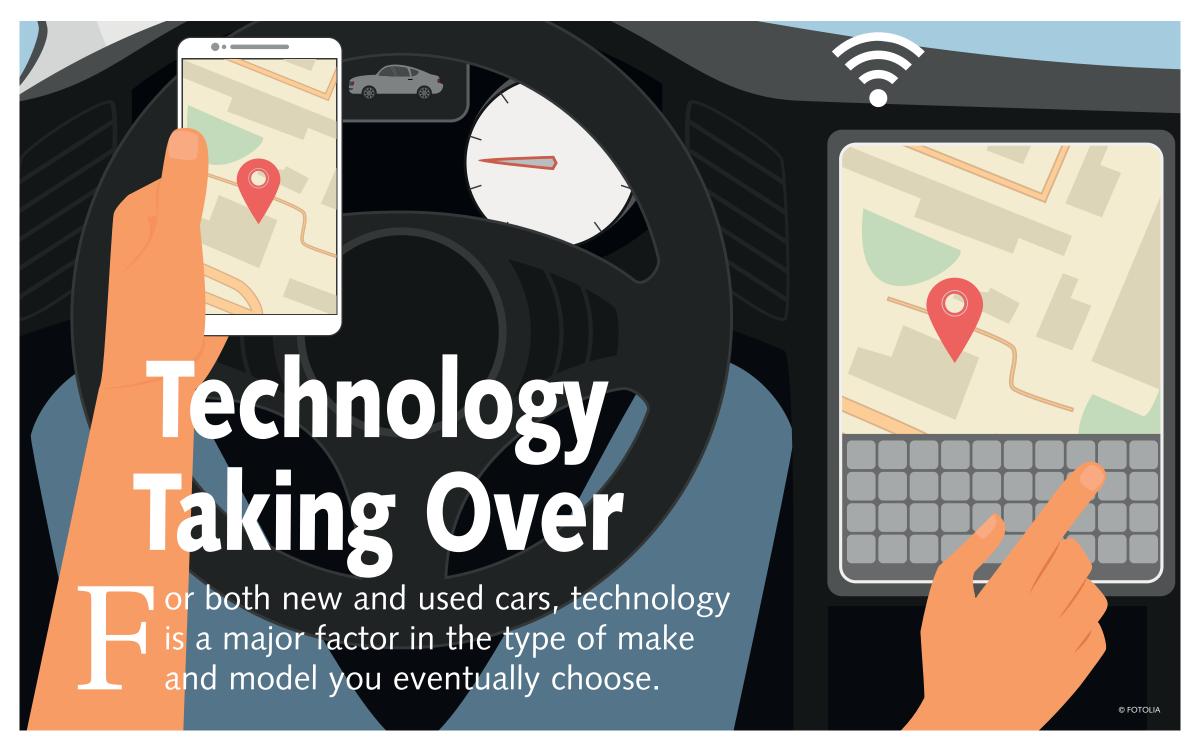
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between trucks and housing has vehicle makers optimistic about the large auto category for 2016 and beyond.

INCENTIVIZING TRUCKS AND SUVS

Especially during hot sales periods

like the end of the year and the Fourth of July, automakers consistently attach great incentives to their new truck and SUV models. These types of rebates are designed to incentivize buyers to take advantage of big savings. Enticing deals on upfront costs or low interest rates for the term of the loan or lease are great ways to convince buyers to spend more on vehicles. And with gas prices at low levels, these savings can lead to a snowball effect on consumers' buying habits.



The evolution of technology in cars is years in the making, so even if you're looking for a 2010 model on the used market, you can still find an integrated driving experience with all the bells and whistles.

Here are a few of the most popular technological features that carmakers are working to refine for their loyal consumers:

TOUCHSCREEN INFOTAINMENT

A central touchscreen that controls audio and other

functions is a must-have for many drivers looking to remain in control of their entertainment features. These other functions can include phone, climate control and vehicle settings.

Touchscreens make for more seamless control of your car and reduce the amount of buttons you're forced to click and turn through. Newer models also have mastered the optimal visual appearance of a slick-looking touchscreen. There are subtle differences

between what automakers include in their specific models, so make sure you research which one will fit both your style and functional preferences.

PARKING ASSIST TECHNOLOGY

Have you ever bumped another car while trying to execute a tight parallel parking maneuver? Many carmakers are implementing parking assist technology to help you overcome this challenge.

Basic forms of these fea-

tures utilize a set of proximity sensors in the rear and front of the car that beeps when you're about to hit a vehicle or object. There also are newer options on the market that can even locate a suitable open space and park the car automatically.

IN-CAR CONNECTIVITY

What's better than data on the go? In-car connectivity systems allow drivers to enjoy high-speed Wi-Fi Internet, which can help you locate restaurants, businesses or other points of interest in unfamiliar areas.

Passengers also will love having Internet access in your car. They can hook up their phones and other devices for entertainment or work purposes. Look for options with 4G LTE connectivity for the fastest Internet option on the market.

One caveat: Make sure you understand all of the aspects of the payment plan for onboard Internet, especially when it comes to data overages.

It's Electric!

ne of the fastest-growing segments of the automobile market is the electric vehicle. When you buy an electric vehicle, you are not only helping your family's bottom line.

Using hybrid and plug-in electric vehicles instead of conventional vehicles can help reduce U.S. reliance on imported petroleum and increase energy security, according to the U.S. Department of Energy.

In 2013, the United States imported about 33 percent of the petroleum it consumed, and transportation was responsible for nearly three-quarters of total U.S. petroleum consumption, the DOE reported. This means that drivers are putting a lot of trust into other countries to produce the oil that is so critical to their daily commutes.

With electric vehicles, drivers are taking matters into their own hands and finding that they like it better this way. Read on to find out if an electric car makes sense for your needs. Don't forget to find friends, colleagues or family members who have beaten you to the electric experience to find out the pros and cons of these type of vehicles.

ELECTRIC CAR BASICS

If you've considered buying an electric vehicle but are unsure of the benefits, here is some basic information, according to the DOE.



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• Hybrid electric vehicles (HEVs) typically use less fuel than similar conventional vehicles, because they employ electric-drive technologies to boost efficiency.

• Plug-in hybrid electric vehicles (PHEVs) and all-electrics (EVs) are both capable of using off-board sources of electricity.

COST PROS & CONS

As with most major purchases, price comes into play when deciding whether or not to buy a new electric vehicle. Costs are much higher for an electric car compared to a conventional

fuel-powered one. However, as popularity continues to surge and production volumes increase, the cost of these vehicles also is likely to decrease dramatically.

If you are looking for a long-term investment, an electric car will more than pay for itself over the course of its life considering the amount of money you will save on fuel.

There also have been numerous rebates and tax credits doled out by the federal government. Check with your dealer to find out what kinds of special savings may be available on the market.

The Turbo Era

ou might think that with the shift toward electric and plug-in hybrid technology that more powerful engines are on their way out of the new car manufacturing world. Quite the opposite has been proven true.

From the family car to the most exotic lines on the market, high-performance turbochargers are now among the most popular options for consumers. There are many reasons behind the shift, most notably the power that turbochargers provide their drivers.

Turbochargers are turbine-driven forced induction devices that increase an engine's efficiency and power output by forcing extra air into the combustion chamber. Turbines can force more air and more fuel into the chamber, which leads to increased performance.

GROWING IN POPULARITY

Many in the car world labeled 2015 the "year of the turbocharger," and we appear to be only at the frontier of turbocharger technology. Some projections show that up to 90 percent of cars and light trucks in the United States will be turbocharged within 10 years.

Adding turbos to engines is a needed strategy as the government has urged automakers to boost their Corporate Average Fuel Economy numbers to over 40 miles per gallon by 2021.

MORE EFFICIENCY

Turbochargers deliver more power — an attractive feature



for drivers of all makes and models.

But did you know they also can deliver more fuel efficiency? That's because turbos allow engines to burn their fuel in a more productive manner that actually leads to lessened emissions.

High-performance turbo-

chargers can add years to an engine's lifecycle. Buying a car is all about value and performance — two of the main benefits of a turbocharged engine.

Turbochargers run off energy that is typically lost in naturally aspirated engines, leading to improvements in overall efficiency and driving power.