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# The new Audi Q5 – successful SUV is even more multifaceted and efficient



**The equipment, data and prices specified in this document refer to the model range offered in Germany. Subject to change without notice; errors and omissions excepted.**



*The fuel consumption and CO2 emissions of all models named above and available on the German market can be found in the list in the last chapter of this basic information.

Summary

# Even sportier and more multifaceted: the second generation of the Audi Q5 arrives

**Audi presents another successful model: Sales for the second generation of the Audi Q5 begin at the start of 2017. The SUV with the four rings combines the sportiness of an Audi sedan with a multifaceted character and a highly flexible interior. Whether in its connectivity, efficiency or driver assistance systems – the new Audi Q5 once again sets standards in its segment.**

“The first Audi Q5 was for many years the world’s best-selling SUV in its class. It was no easy task to design its successor, but that is precisely why it is so very exciting,” says Rupert Stadler, Chairman of the Board of Management at AUDI AG. “With the new Q5 we are setting the bar a notch higher. Among the great innovations are the quattro drive system with ultra technology, highly efficient engines, the air suspension with damper control and a comprehensive line-up of infotainment and assistance systems.”

The new SUV from Audi takes a sporty and taut stance on the street.
A sculpturally flared Singleframe grille with a solid frame dominates its aerodynamically flat front end. It is available with headlights that are either in LED or high-resolution Matrix LED technology with dynamic turn lights.

**Typically Audi: Reference to the quattro drive**
A distinctively curved and strongly undercut shoulder line gives structure to the side view. The strongly emphasized wheel arches are a reference to the quattro permanent all-wheel drive system, and the low greenhouse tapers back down early. Just as at the front, horizontal lines at the rear convey an image of width and presence. The tail lights are also available with optional dynamic turn signals. The tailgate wraps around the C-pillars – a typical feature of the Q models from Audi. A diffuser insert integrates the exhaust tailpipes.

Audi is offering the new Q5 in 14 different exterior colors. Five newly configured equipment lines are available – sport and design, the S line sport package, design selection and the S line exterior package. They influence the overall appearance. In the design line, contrasting gray add-on parts emphasize the rugged character of the new SUV, while the sport equipment line of the Audi Q5 has parts fully painted in the exterior color.

**Weight saved: up to 90 kg *(198.4 lb)* lighter than the previous model**
4.66 meters *(15.3 ft)* long, 1.89 meters *(6.2 ft)* wide and 1.66 meters *(5.4 ft)* tall with a 2.82 meter *(9.3 ft)* wheelbase – compared to the previous model, the new Q5 has grown in nearly all of its dimensions. Consequently, the unladen weight was reduced – depending on the engine – by up to 90 kg *(198.4 lb)*. Steels with maximum tensile strength and aluminum form an intelligent material mix in the body.

The new Q5 also stands at the top of its class in its aerodynamics. The four-cylinder versions attain a $c_d$ figure of 0.30 with the aerodynamically optimized roof. Wind noises are exceptionally low, and vibration comfort is high – the new SUV from Audi indulges the driver and passengers with the best interior acoustics in its class.

**Spacious and wide: the interior**
The interior offers a lot of space for five persons, and it surpasses the previous model and its competitors in key dimensions. Its horizontally oriented lines underscore the impression of width and comfort, and a three-dimensional trim strip runs across the entire width of the instrument panel. The new equipment lines concept offers customers a broad selection of colors and materials.

The new, high-efficiency air conditioner is available in two versions.
A three-spoke multifunction steering wheel is standard; additional functions such as steering wheel heating are optional. Seat features range all the way to a pneumatic massage function. When it is dark, the optional ambient lighting (standard with design selection) creates an attractive atmosphere in 30 different colors. The workmanship quality in the new Q5 is uncompromising.

The rear seat back of the new Audi Q5 is split into three segments. Longitudinal and seat back angle adjustment are optional. Depending on the rear seat position, the basic volume of the luggage compartment ranges from 550 to 610 liters *(19.4 to 21.5 cu ft)*, 10 liters *(0.4 cu ft)* more than in the previous model. When the rear bench is folded down, this volume grows to 1,550 liters *(54.7 cu ft)*. Cargo loading is simplified by intelligent solutions like a standard, variably folding mat, optional sensor control of the power tailgate and manual lowering of the body via the optional air suspension.

**Simply coherent: controls and displays**
Operation of the new Audi SUV is intuitive and is marked by three great new features. The optional Audi virtual cockpit presents brilliant graphics on its high-resolution 12.3-inch screen. The driver can choose from two views – a classic view with large round instruments and a mode in which the navigation map or lists dominate. The also optional head-up display projects key information onto the windshield.

The MMI terminal in the center console acts as the main control element. In the top infotainment system, the MMI navigation plus with MMI touch and an 8.3-inch display, a touchpad is integrated into the rotary pushbutton. It recognizes handwritten entries as well as gestures familiar from consumer electronics such as zooming gestures. If the new Q5 has an automatic transmission, it also has the larger MMI all-in-touch including haptic feedback.

The MMI operating logic is based on the flat hierarchies used in today's smartphones, and it offers such features as intelligent free-text search. The new natural-language voice control function also recognizes inputs from everyday speech. Serving as an additional third operating level in the new Audi Q5 is the multifunction steering wheel plus. Audi can deliver a newly developed head-up display as an option. It projects relevant information onto the windshield – including from driver assistance systems – as symbols and numbers that can be perceived quickly.

**Audi navigation: “Personal route assist”**
The new Audi Q5, like the Q7 and the A4, has a self-learning “personal route assist” function. After activating this function, the navigation system learns the routes and destinations that the customer regularly selects, and it associates this information to the parked position and time of day.

For as long as it is active, the system therefore learns from the customer’s behavior and uses this information to suggest optimized route planning for the next trip – even while navigation is inactive. The navigation system incorporates the three most likely destinations into the calculation, taking into consideration both the arrival time and current traffic levels. For instance, the system can suggest that the customer activate navigation to find out about potential alternative routes. The driver decides whether or not to activate the function. He also has the option of deleting saved destinations. If the function is deactivated, the system does not store the destinations and does not consider deleted destinations or the routes driven.

**Online via LTE: MMI navigation plus**
MMI navigation plus utilizes the Audi connect module to integrate a LTE module and a Wi-Fi hotspot – this lets passengers go online with up to eight mobile devices. Audi connect enables convenient roaming in Europe for many Audi connect services with its permanently installed SIM card – the Audi connect SIM with a flat data rate. If they wish, users can also book data packages for the Wi-Fi hotspot at attractive prices, which also include EU roaming.

The free Audi MMI connect app produces a close interconnection between the car and smartphone or a smartwatch and offers other services. They include remote checking of important vehicle states, online media streaming and transmission of a calendar from a smartphone to the MMI.

**High-end option: the infotainment modules**
The Audi phone box connects smartphones to the vehicle's antenna for optimal reception quality; it also charges smartphones inductively according to the Qi standard. The Bang & Olufsen Sound System with innovative 3D sound introduces the spatial dimension of height. The Audi tablet, which is also new, serves as a flexible Rear Seat Entertainment device. The Audi smartphone interface also brings Apple CarPlay and Android Auto into the new Q5.

**Driver assistance and safety systems**
In its driver assistance systems, the new Audi Q5 also tops its segment with a broad range of high-tech options. In their intelligent interplay, the systems represent a next step towards piloted driving. They are bundled into three packages – Tour, City and Parking.

The predictive efficiency assistant helps the driver save fuel by specific information on the car's surroundings. Adaptive cruise control (ACC) including traffic jam assist can handle some of the steering work in slow-moving traffic. Audi active lane assist makes it easier to stay in lane. Distance warning alerts the driver when the distance to a vehicle drops below a safe distance.

Cross traffic assist rear, the exit warning system, collision avoidance assist and turn assist are other new features that perform excellently in pursuit of safety. The same applies to the pre sense systems – Audi pre sense city is a standard feature which warns of pedestrians and vehicles and may initiate automatic emergency braking within system limits. Park assist, the camera-based recognition of traffic signs and hill descent assist round out the features.

**Powerful quintet: TDI and TFSI engines**
The new Audi Q5 is launching in Europe with five powerful and efficient engines: four TDI engines* and one TFSI*. They have added up to 20 kW (27 hp) of power, with fuel consumption however being significantly reduced. Particularly the 2.0 TDI engines in the new Q5, with outputs of 110 kW (150 hp), 120 kW (163 hp) and 140 kW (190 hp), are highly efficient.

The two top engines combine ample power with efficiency. The further developed 2.0 TFSI* has an output of 185 kW (252 hp), yet it only consumes 6.8 liters of gasoline per 100 km *(34.6 US mpg)*, which equates to 154 grams $CO_2$ per km *(247.8 g/mi)*. The also intensively revised 3.0 TDI* increases output to 210 kW (286 hp) with 620 Nm *(457.3 lb ft)* of torque.

**Versatile and efficient: drivetrain**

The drivetrain of the mid-size SUV has been redeveloped from the ground up – this also applies to the six-speed manual transmission, seven-speed S tronic and eight-speed tiptronic (only with the 3.0 TDI). The automatic transmissions integrate a fuel-saving freewheel function. The driver controls it by a selection lever or by shift paddles on the steering wheel; in both cases, the control signals are transmitted electronically.

The new quattro drivetrain with ultra technology is standard equipment for the 2.0 TDI with 120 kW (163 hp)* and 140 kW (190 hp)*, and for the 2.0 TFSI* with 185 kW (252 hp)*. Audi can deliver it as an option for the entry-level diesel engine with 110 kW (150 hp). The quattro with ultra technology always disengages the rear-axle drive whenever it is not needed, and if necessary it can proactively re-engage it. The new concept boosts efficiency without reducing traction or driving dynamics.

In both the front-wheel drive and quattro drive versions, wheel-selective torque control gives handling a refined touch. The intelligent software solution always delivers a dynamic, precise and controllable driving experience. For the V6 diesel, Audi can deliver an optional sport differential at the rear axle which distributes torque between the wheels as necessary and thereby provides a maximum of driving dynamics – this is another new feature in this model series and in the competitive field.

**Resolving contradictions: the chassis**

The new Audi Q5 enables handling that combines very different strengths – it is sporty while being extremely comfortable. Creating the basis for this are the newly developed five-link suspensions and also the new electromechanical power steering system. Dynamic steering is available as an option; it varies its gear ratio according to the driving speed and steering angle.

Customers can choose from two extension stages of springs and damping. The chassis with damper control offers a very wide spread between comfort and dynamics, which the driver can select via Audi drive select. In addition to adjusting damper control, the new adaptive air suspension can be used to vary the ride height of the car body over five stages. In the Audi Q5 3.0 TDI*, these two systems and the sport differential are bundled into a new central chassis control unit.

In the standard system, Audi drive select, which accesses various technical modules, the driver can select one of as many as seven driving modes. The two new modes, lift/offroad and allroad, emphasize the offroad character of the Audi Q5 optimally.

The new Audi SUV comes from the factory with 17-inch alloy wheels. The design and sport equipment lines come with 18-inch wheels, and the S line sport package and Audi design selection come with 19-inch wheels. Wheels up to 21 inches in diameter are available as options.

The new Audi Q5 is manufactured at a newly constructed plant in Mexico. It will arrive at dealers in Germany and other European countries at the beginning of 2017. The base price at the start of sales for the Q5 2.0 TDI* 120 kW quattro S tronic* will be 45,100 euros.

At a glance

# The new Audi Q5

**Exterior design and body**

- Length 4,663 mm *(15.3 ft)*, width 1,893 mm *(6.2 ft)*, height 1,659 mm *(5.4 ft)*
- Singleframe grille with strong frame, large air intakes, optional LED and Matrix LED headlights with dynamic turn lights
- New equipment lines concept with clear differentiating features on the exterior
- Lightweight design with high-end steels and aluminum, lightest body in its class
- $c_d$ figure is just 0.30, making it the new benchmark in the segment

**Interior and luggage compartment**

- Elegant, horizontally oriented design, large trim strips, new colors and materials, new lines, numerous personalization options
- Generous space, standard rear seat back has three-way split, optional horizontal and seat back angle adjustment for rear bench
- Luggage compartment has 550/610 to 1,550 liters *(19.4/21.5 to 54.7 cu ft)* of volume, variably folding mat is standard
- Optional power tailgate with sensor control

**Controls and displays**

- Optional Audi virtual cockpit with high-resolution 12.3-inch display
- Newly conceptualized MMI control, in the top version with touchpad (MMI touch or MMI all-in-touch), free-text search and natural language voice control, can also be operated from steering wheel
- Optional head-up display for quickly acquiring key information
- Optional heated steering wheel, optional pneumatic massage function for seats
- Automatic air conditioning with new user interface and high-efficiency technology

**Infotainment and Audi connect**

- Modular infotainment platform, second generation (MIB2)
- Optional MMI navigation plus with MMI touch and 8.3-inch MMI monitor, Audi connect, LTE module and Wi-Fi hotspot.

- Numerous new Audi connect services and safety & service functions, Audi MMI connect app with other new services
- Audi connect SIM with flat data rate and EU roaming
- Audi navigation with personal route assistance
- Audi phone box with inductive charging is optional
- Audi tablet as a mobile Rear Seat Entertainment system
- Audi smartphone interface
- High-end option: Bang & Olufsen Sound System with 3D sound

**Driver assistance systems**
- adaptive cruise control Stop&Go including traffic jam assist for slow-moving traffic up to 65 km/h *(40.4 mph)* driving speed and distance warning.
- Predictive efficiency assistant for even better fuel economy
- Hill descent assist, Audi active lane assist and Audi side assist
- New: park assist, cross traffic assist rear, exit warning, turn assist, collision avoidance assist and camera-based recognition of traffic signs
- New safety systems: Audi pre sense city, basic, front and rear

**Engines**
- One TFSI and four TDI engines from 110 kW (150 hp) to 210 kW (286 hp), all engines extensively re-engineered
- Up to 20 kW (27 hp) more power with significantly reduced fuel consumption compared to previous model, new start-stop system
- 2.0 TDI with 110 kW (150 hp) and 320 Nm *(236.0 lb-ft)*
- 2.0 TDI with 120 kW (163 hp) and 400 Nm *(295.0 lb-ft)*
- 2.0 TDI with 140 kW (190 hp) and 400 Nm *(295.0 lb-ft)*
- 3.0 TDI with 210 kW (286 hp) and 620 Nm *(457.3 lb-ft)*
- 2.0 TFSI with 185 kW (252 hp) and 370 Nm *(272.9 lb-ft)*

**Drivetrain**
- New manual transmissions, seven-speed S tronic and eight-speed tiptronic (3.0 TDI)
- Automatic transmissions with freewheel function and shift-by-wire control
- quattro drivetrain with new, efficient ultra technology for all four-cylinder engines, further advanced wheel-selective torque control
- Sport differential optional in the 3.0 TDI for even better dynamics and stability

**Suspension**

- New lightweight five-link suspensions, front and rear, delivering significant progress in sportiness and comfort, lower center of gravity
- Newly developed electromechanical power steering, optionally with dynamic steering
- Audi drive select dynamic handling system, new offroad and allroad modes
- adaptive air suspension with damper control for all quattro variants
- Optional wheels from 17 to 21 inches in diameter

Full version

# The new Audi Q5: new edition of the best-seller

**A best-selling car from Audi has been made even more powerful and sporty – the new Q5 sets the bar a notch higher. The most significant new features are the quattro drive with ultra technology, highly efficient engines, adaptive air suspension and an array of infotainment and assistance systems.**

## Exterior design

The Audi Q5 was in the fitness studio – and it has returned, lean and taut and athletic. It has grown slightly in its exterior dimensions. The new SUV with the four rings is 4,663 mm *(15.3 ft)* long, 34 mm *(1.3 in)* longer than the previous model. Its width is unchanged at 1,893 mm *(6.2 ft)*, its height is 1,659 mm *(5.4 ft)* (six mm *(0.2 in)* taller), and its wheelbase has been extended to 2,819 mm *(9.2 ft)* (twelve mm *(0.5 in)* longer).

Its masculine-sporty character is striking at first glance. The front of the Q5 is relatively low and marked by horizontal lines; the Singleframe also has a horizontal structure. A powerful frame in aluminum look runs up to the headlights and emphasizes the dominance of the Singleframe grille.

The contours that give structure to the engine hood begin at the upper corners of the Singleframe; the two outer contours run up to the A-pillars. The hood wraps over the upper edges of the fenders. Under the radiator grille are the air intakes; the outer ones are structured by unobtrusive cross bars. Detailing of the air intakes differs by equipment line – sport and design, S line sport package, design selection or S line exterior package. In the sport line, the bumper is painted in the body color, while in the design line it is finished in an offsetting gray color. In the S line exterior package, it has a unique design in the body color.

**According to choice: three headlight technologies available**
The headlights of the new Audi Q5 have a low-profile and slightly wedge-shaped form. Xenon plus units are standard; LED headlights and Matrix LED headlights with dynamic turn signals are offered as alternatives. Both of these options come with a light/rain sensor and special lighting functions – for turning, for the expressway and for adverse weather. The dynamic, powerful lines of the light signature generate the brand-typical sporty and focused look of the Audi Q5. A special satin finish gives it a sculptural “ice block” look. The upper light conductor also serves as the turn signal.

The very bright and homogeneous high-beam light of the Matrix LED headlights is produced by 16 individual LEDs on each side. After passing through primary lenses, they radiate their light from three specially formed reflectors. The control unit communicates with a camera in the rear view mirror and individually switches them on or off or dims them over 64 steps according to the situation. As a result, the Matrix LED headlights always illuminate the road excellently without causing glare to other road users.

The Matrix LED headlights come with additional functions. To avoid causing glare from light reflecting back from highly reflective traffic signs, it reduces lighting power in the zone of specific sign. The cornering light of the headlights is produced by shifting the light focus – in cooperation with the optional MMI navigation plus system briefly before steering into the curve. The intersection light function, which is also navigation based, helps to detect hazards or obstacles in intersection or turning zones. The dynamic turn signal light is generated by lighting LEDs sequentially. It runs from inside to out, communicating the action very clearly to the environment.

**Coupé-like look: the side view**
In a side view, the flow of lines makes the sporty character of the new Audi Q5 very clear. The roofline is crowned by flat roof rails, and it descends early towards the rear, while the lower window edge curves upward shortly before the C-pillar. The low greenhouse tapers inward towards the rear, and the D-pillars are angled like on a coupé.

The greenhouse is supported by a muscular body, and a distinctive, sharply undercut shoulder line gives it structure. It begins as the engine hood seam at the corners of the headlights and sweeps back in an elegant curve towards the rear, where it runs out into the upper edge of the tail lights. On the flanks, various surfaces create an interplay of light and shadow.

Significantly flared wheel arches are a reference to the quattro drive and Audi DNA. In the design line, the inner segments of the wheel panels are offset in structured gray. In the lower areas of the doors and side sills, trim strips in aluminum look set accents. The angular exterior mirrors are mounted on the door shoulders and underscore the sporty look of the new Audi SUV.

**Horizontal lines: the rear body**
Horizontal lines also emphasize the car's width at the rear. A roof edge spoiler – which takes on a special design in the S line exterior package – casts a shadow over the low-angled rear window. The tailgate wraps around the D-pillars – a typical design feature of the Q models from Audi. The tail lights are located fully in the upper widely drawn-out area of the tailgate, and this enables a homogeneous design without breaks. When the tailgate is open, additional lights in the bumper assume the lighting functions of the upper lights.

The rear lights of the new Audi Q5 are wedge shaped. The cover glass flows around the sculpturally formed tail light elements and embeds the light into the rear architecture in three dimensions. The line beneath the tail light serves as a turn signal or a dynamically swiping turn light (from LED headlights). The rear lights consist entirely of LEDs as a standard feature.

Like its counterpart at the front, the rear bumper differs according to the equipment line. In the lower area, it integrates the two tailpipe trims of the exhaust system, which are shaped as low-profile trapezoids. In the S line exterior package, they are joined to one another by a trim piece in aluminum look, and there is an insert with a honeycomb screen.

The range of paint choices for the new Audi Q5 consists of 14 colors. The solid colors are brilliant black and ibis white. The metallic and pearl effect hues have these names: Azores green, florett silver, Java brown, Manhattan gray, matador red, moonlight blue, monsoon gray, mythos black, Navarra blue, Tofane white and utopia blue. The S-specific color Daytona gray rounds out the palette. In the optional customized paint finishes from the Audi exclusive range, customers are entirely free to choose their preferred color shade.

At the launch of the new Q5, Audi will be adding a special equipment package known as Audi Q5 S line black. The exterior paint is quantum gray, and the lower zones of the body are offset subtly in Manhattan gray. At the front and on the side windows, the titanium black styling package from the Audi exclusive range adds accents such as black exterior mirrors. The equipment package, which will only be available for a limited period, will include 20- or 21-inch wheels.

## Body

The new Audi Q5 with a 2.0 TFSI engine* weighs just 1,720 kg *(3,792.0 lb)* unladen (without driver). The body creates the basis for this low weight figure – it is the lightest in the segment. Despite larger dimensions, the occupant cell alone has shed around 20 kg *(44.1 lb)* compared to the previous model. The car as a whole has lost up to 90 kg *(198.4 lb)* depending on the engine version.

The key factors here are new solutions in geometric lightweight construction and an intelligent material mix, in which aluminum plays a large role. The front cross-member is an extruded profile of this lightweight metal. Profiles and sheet aluminum are combined to form the module cross member under the instrument panel. Highly integrated cast aluminum parts form the front strut tower domes in the new Audi Q5. Their construction is light and very stiff. This lets them join the upper links of the front axle to the body with high precision – for a plus in driving dynamics.

The engine hood of the new SUV and the tailgate are also made of aluminum. In deep-drawing the tailgate in the press, what is known as an intelligent tool is in play, a development by Audi. Laser sensors measure how the sheet behaves during forming, and if necessary, electrically actuated drawing aids make fine adjustments to the pressure. This results in precision in the range of thousandths of a millimeter.

**High-strength backbone: the occupant cell**
Hot-formed parts form the high-strength, crash-safe backbone of the occupant cell. They reinforce the transition from the front body to the interior, the front zone of the roof frame, the B-pillars, side sills and parts of the floor. The proportion of these parts in the body structure is 20 percent. In hot-forming, the sheet metal blank is first heated to a temperature above the material's recrystallization temperature in an oven, then it is formed in a water-cooled press tool. In this process, the sheet metal is removed from the heat as quickly as possible. This results in a material structure with extremely high tensile strength.

What are known as tailored rolled blanks are used for many of the hot-formed body parts in the Audi Q5. These blanks can be rolled to the appropriate thickness where necessary, which leads to a weight savings of 4.6 kg *(10.1 lb)*. In the B-pillars Audi is using another high-end technology: partial heat treatment. Individual zones can be cooled at different rates within the tool, which affects their strengths. In a side crash, the B-pillar deforms in the lower zone to absorb impact energy. On the other hand, the pillar hardly deforms at all in the upper zone – at head height.

Along with low weight, the body of the new Audi Q5 exhibits other strengths – high torsional rigidity and excellent vibration behavior. When idling, the switchable engine mounts reduce vibration and noise even more. The new SUV also gets top grades in crash safety. In the interior, the adaptive restraint system adjusts the task of the front airbags and the seat belt force limiters to the seating position of the driver and front passenger as well as to the type of frontal collision.

**$c_d$ 0.30: top figures in aerodynamics**

In terms of its aerodynamics, the new Audi Q5 is at the top of its class. All four-cylinder versions attain a $c_d$ figure of 0.30 with their aerodynamically optimized wheels. This top result is based on the aerodynamic basic vehicle body and meticulous fine tuning of many details. It begins at the front apron, where the air intake screens on the sides were designed such that they did not increase the $c_d$ figure.

The decorative screen was optimized to ensure that the partially detaching airflow would reattach on the side of the bumper shortly before reaching the front wheels. To further reduce aerodynamic drag, a controllable cooling air intake is used in the Q5 2.0 TFSI* which generally closes the upper air intake. It is only necessary to open the controllable cooling air intake in the few situations in which cooling demand is elevated. This technology has a noticeable effect on $CO_2$ emissions.

The aerodynamic concept of the new Q5 also includes the exterior mirrors and the wheels. Customers can choose wheels with very low air drag. The Q5 achieves the lowest $c_d$ figure of 0,30 – a benchmark in the competitive class – with the aerodynamically optimized “aero-wheel”, a two-tone 17-inch wheel that is closed off to a great degree. At the rear, the long roof spoiler and louvers optimize detachment of the airflow. Even the tail lights have small separation edges.

The underbody of the new SUV also guides the airflow by means of wheel spoilers and large plastic covers. The engine compartment is encapsulated, and panels cover the sheet metal under the passenger cell. Between the transmission cross beam and the rear axle, there is a special capsule that is designed differently according to the specific engine and exhaust train. The transverse links of the rear suspension are also covered, which keeps lift low and also provides protection from stone impact.

The new Audi Q5 also sets the bar at a new level when it comes to aero-acoustics. Its interior is as quiet as vehicles in the next higher class. Key factors here include the exterior mirrors, double door seals and aero-acoustically optimized water drain channels. An acoustic windshield and thick standard glazing are also standard equipment. For even greater comfort inside the vehicle, Audi also offers optional acoustic windows for the front doors.

## Interior

The interior of the new Audi Q5 is a feel-good lounge with generous space. It surpasses the previous model in most dimensions. Shoulder width at the front and rear seats, headroom front and rear and maximum knee room and elbow room at the rear have all grown. The new SUV distances itself from all of its rivals in the premium segment in important criteria – shoulder width and elbow room.

**Progressive and elegant: interior design**
The interior lines reinforce an impression of airy expansiveness. It focuses on horizontal elements, which follows its exterior design. The interior of the new Q5 has a progressive and elegant feel; its clear forms and intuitive functions harmonize ideally with one another – which is typical Audi.

The “wrap-around” develops from the door panels and runs across the front of the instrument panel – it encloses the interior and creates a feeling of spaciousness. A clear focus on the driver results in a partitioning of the driver and front passenger zones.

The upper zone of the front cockpit contains the air vents, and a distinctive trim strip in aluminum look frames them. Beneath this trim strip is a sculpturally formed trim panel that is rich in facets. It runs across the full width of the instrument panel and thereby reinforces the feeling of generous space. With its distinct edges, the panel conveys the image of strength and ruggedness.

The recesses for the door handles are embedded directly in the handles – another expression of cool elegance and formal integration. The interior door release handles and door pockets, on the other hand, are designed very sculpturally – which is also typical of an Audi SUV.

The steering wheels have been redesigned – the extremely compactly folding driver's airbag makes a small impact absorber possible. All of the steering wheels have a leather-trimmed rim, three spokes and multifunction buttons, but their design details vary widely. Options are multifunction plus with 14 buttons, the sport contour with a flat bottomed rim, chrome trim on the open lower spoke and a heated steering wheel rim.

**Operation that is fun: automatic air conditioning**
The control panel for the automatic air conditioning also has a clearer layout – particularly the optional deluxe automatic air conditioning, in which the temperature indicators are integrated into the rotary knobs. When the user's finger approaches one of the capacitive rocker switches, its function is shown enlarged on the LCD display and is preselected. With the deluxe automatic air conditioning, the interior of the new Audi Q5 can be partitioned into three climate zones; the rear passengers can use their own control panel.

The deluxe automatic air conditioning and standard single-zone air conditioning have been re-designed from the ground up. Energy usage is kept low by efficient solutions in the blower motor and in the coolant loop as well as by intelligent control. Air quality inside the new Audi Q5 is very high – a combination activated charcoal filter captures the finest of dust particulates, and it chemically binds gases and unpleasant odors. The low noise level rounds out the deluxe image of the air conditioning.

An optional auxiliary heater is available for the winter. It heats up the interior very quickly. It may be activated by a timer function or from the remote control key. In conjunction with the Audi connect package "safety & service" and the free Audi MMI connect app, the auxiliary heater can be controlled remotely from a smartphone. In the summer, the same control options can be used to ventilate the car interior before driving off; this reduces the interior temperature significantly.

The choice between summer or winter preconditioning cases is made automatically. A heated windshield is available as an option. It comes without any annoying wires – there is an extremely thin layer of silver between two glass layers which can be heated. It is also very beneficial in the summer, because it insulates against heat radiation.

**Completely redeveloped: the seats**
The seats in the new Audi Q5 have been redesigned from the ground up – based on the principles of strict lightweight design. High-strength steels in the underbody reduce weight, and magnesium components and a light wire frame are used for the rear bench. The sport seats (standard in the sport equipment line) have a smart, cubism look with their sharply contoured side bolsters and shoulder section that is made up of three segments. A removable seat cushion is standard with this option, and a power lumbar support is also available as an option.

The options program for the front seats is highly varied. It includes heating – optionally for the rear seats too –, power adjustments for the driver's seat or both front seats, a memory function, a pneumatic lumbar support with massage function and ventilation that is adjustable over three stages. As an option, the head restraints can also be adjusted regarding the distance from the back of the head.

A central armrest in front, large door pockets and two cup holders are standard in the new Audi Q5. The optional storage and luggage compartment package contains such features as a movable compartment on the console over the middle tunnel and a rear center armrest with two cup holders and a folding compartment.

The rear seat system, which has a standard 40:20:40 split, offers a pleasant, upright seat position. As an option, its two large segments each have around twelve centimeters of longitudinal adjustment. In addition, the rear passengers can adjust the angles of their seat backs over three stages.

**Uncompromising: the quality of craftsmanship**
In the interior of the new Q5, all materials have been selected and processed with the greatest care – as is always the case at Audi. The chrome trip strips and trim panels are fitted with zero play. All seams are extremely narrow and parallel to one another, the rotary/pushbutton control of the MMI system has highly precise click steps – its quiet clicking is the sound of Audi perfection.

As an alternative to the standard interior lighting, there are two versions – the ambient light package with white LEDs (standard in the design line) and the multicolored ambient light package (standard in the design selection line). In the top version, narrow LED light conductor strips above the trim strips in the door and on the instrument panel create impressive illumination effects. The door trim panels are also illuminated. Under the center console, the surface lighting creates a hovering effect. The lighting zones can be controlled from the MMI, and their color can be individually selected from 30 different hues. As an alternative, the color profile can be set to follow the driving mode selected in the Audi drive select system.

**High degree of customization: colors and materials**
The colors and materials for the interior have been reconfigured; the broad range of choices ensures a lot of freedom for personalization. For the instrument panel, black and granite gray are available as colors. In the design selection line, it can be subdivided into two color zones in combination with atlas beige, rock gray or granite gray.

The range of upholstery materials and colors is just as broad. The seat upholstery can be ordered in black, rock gray, granite gray, rotor gray, atlas beige or nougat brown. As an alternative to the standard cloth material, there are combinations of cloth and pearl Nappa leather, leather and artificial leather or pearl Nappa leather and Alcantara. Ranging above these are the pure leather upholstery options – here there are the grades Milano and fine Nappa (only for sport seats), the latter with contrasting seams and piping. The extra leather package incorporates the arm rests in the doors and knee pads on the center console.

**Exclusive: S line sport package and design selection**
In the S line sport package, the color black or rotor gray dominates. The sport seats are upholstered with a combination of pearl Nappa and cloth; options include embossed pearl Nappa/Alcantara or fine Nappa leather with diamond pattern. The front seatbacks are embossed with the S logo. The sport contour leather steering wheel, illuminated door sill trims and fenders all bear S logos. Stainless steel pedals and foot rests and a black headlining round out the image. 19-Inch wheels and the sport suspension stand for dynamic handling.

Another highlight of the new Audi Q5 is the design selection line. Here the instrument panel is finished in either black or granite gray or a combination of granite gray and atlas beige.

Upholstery materials correspond to those of the S line sport package, but without the diamond pattern. The multicolored ambient lighting package, illuminated door sill trims, a leather package, contoured sport steering wheel and 19-inch wheels complete the design selection features.

**Spacious and flexible: the luggage compartment**
The new Audi Q5 offers up a large luggage capacity – with 550 liters *(19.4 cu ft)* of volume in the base configuration, it surpasses the previous model by 10 liters *(0.4 cu ft)*. In conjunction with the sliding rear seats, the luggage compartment grows up to 610 liters (21.5 cu ft), depending on the positions of the rear bench and seat backs. Thanks to the flat side walls and low load sill, which can be lowered even more with the optional adaptive air suspension, the luggage room offers excellent usability. A stainless steel guard protects the loading sill. A partition net and luggage compartment cover are standard, supplemented by four lashing points.

As an option, Audi can deliver a reversible loading floor or a rubber-treated luggage compartment mat that can be folded flexibly – a USP in the competitive field. The mat can be placed to cover the bumper, the rear seat backs or the side walls; it can also be used to subdivide the luggage compartment into smaller spaces. The optional rail system with a load-securing kit adds even more flexibility here. The also optional storage and luggage compartment package includes tensioning straps, nets, bag hooks and a 12-volt socket.

Only two hand motions are needed to expand the luggage compartment to its maximum volume of 1,550 liters *(54.7 cu ft)*. Latches in the side walls are used to release the springs, and the rear seat backs fold down onto the seat cushions on their own. When the lever is used while the seat backs are down, they then lift back to an angle of around 45 degrees. The extended luggage compartment offers 113 cm *(44.5 in)* of load width and 105 cm *(41.3 in)* of full-length load width.

The wrap-around tailgate of the new Audi Q5 opens high – optionally with a power drive that also handles closing. Customers can individually adjust the opening angle here to match the roof height of their garage. When customers order the convenience key, they can trigger power opening and closing with a foot gesture that is detected by a sensor.

The new Audi Q5 can pull a trailer weighing up to 2,400 kg *(5291.1 lb)* (braked, 8 percent grade), depending on the engine selected. Audi offers a power extending and manually swiveling towbar for this purpose. It is combined with the intelligent trailer stabilization software. When the trailer begins to sway, it eliminates this movement by means of slight counter-steering pulses and brake interventions.

## Controls and displays

Audi has set a new standard in the automotive industry with the fully digital virtual cockpit and the new MMI operating concept. Both technologies are also available as options for the Q5.

**The instrument cluster and the Audi virtual cockpit**
The standard instrument cluster in the Audi Q5 has analog scales. The driver information system display is located between the large round instruments. It is available in two versions – monochrome with 5-inch or color with 7-inch diagonal (standard with design selection). Even more attractive is the optional Audi virtual cockpit – a TFT display with a 12.3-inch diagonal and 1,440 x 540 pixel resolution. It shows intricately rendered graphics.

The driver can switch between two views by pressing the “View” button on the multifunction steering wheel. In Infotainment mode, a central window dominates the view – it provides a lot of space for the navigation map or lists from the Phone, Radio and Media areas. The tachometer and speedometer are displayed as small round instruments on the right and left. In a second, classic view, they appear about as large as analog instruments, and the middle window is smaller.

The Audi virtual cockpit is operated from the multifunction steering wheel plus. Using switches on the left steering wheel spoke, the driver pages through the menus for the on-board computer, audio system, and – depending on the installed features – for the phone and navigation. Located on the right side of the steering wheel are the volume roller, the voice control button, express phone controls and the skip function for quickly changing the radio station or song.

**Versatile, intuitive, intelligent: the MMI operating system**
The MMI control element is located on the center console of the new Audi Q5. Its design and position vary according to the specific infotainment system and transmission that are installed. With a manual transmission, the selector lever is in front of the MMI terminal. In versions with S tronic or tiptronic, the terminal is placed close to the instrument panel; the low position of the automatic selector lever offers comfortable support for the wrist.

In interplay with the automatic transmission, there is a large touchpad, MMI all-in-touch, which has a nearly rectangular operating screen that is 110 x 80 mm *(4.3 x 3.1 in)* in size. The driver can enter characters or perform multi-finger gestures here, to zoom in on the map, for example. Each input is confirmed by acoustic and tactile feedback – with a click that is also felt on the finger.

The innovative MMI search makes it easy to find music titles, phone contacts or navigation destinations. All it takes is a few letters to have the first hits shown in the results list. Here, the system considers the current location of the Q5 and recent activities in the MMI.

All other functions can be controlled with the rotary push-button control which enables scrolling, clicking and moving. Two rocker switches in the MMI terminal call up the main functions directly; with MMI all-in-touch there are also eight user-programmable buttons. MMI operation is completed by a functional menu and an options menu. For example, in the radio menu the driver can select the frequency band, or call up traffic information in the map menu. Under Navigation, the driver can be directed to an input destination and have parking places in the vicinity displayed.

Another highlight is the intensively further developed, user-friendly and intuitive voice control feature. The driver no longer has to be constrained to rigidly defined voice commands – in many languages the system understands expressions from everyday speech. In the Phone menu, for example, the driver can call a contact just by saying “I want to call Peter Miller.” or “Connect me with Peter Miller.”

The MMI display takes a central position on the instrument panel. It looks like a high-end tablet computer with its black display glass that is rounded at the corners. In the top version with MMI navigation plus, the display has a silver-colored frame made of magnesium. Supplementing voice control and the MMI terminal in the new Audi Q5 is the multifunction steering wheel plus – a third user interface.

**Everything important within view: the head-up display**
Audi can deliver a newly developed head-up display as an option. It projects relevant information onto the windshield – including from driver assistance systems – as symbols and numbers that can be perceived quickly. A TFT screen generates the color image while two mirrors enlarge it and redirect it. The system compensates for distortions that would otherwise be produced by the glass geometry.

The information appears to hover around two meters *(6.6 ft)* in front of the driver within a window area measuring 200 x 80 mm *(7.9 x 3.1 in)*. The human eye registers the information very quickly – there’s no need to switch from the accustomed long-range vision. The driver can use the MMI system to specify which information should be shown on the screen; the height and brightness of the display can also be set.

## Infotainment and Audi connect

MMI radio plus, MMI navigation, MMI navigation plus, Bang & Olufsen Sound System, Audi tablet – the line-up of infotainment modules for the new Audi Q5 is wide-ranging and highly attractive. The same applies to the online services of Audi connect.

The second generation modular infotainment platform (MIB 2) serves as the basis here. Its scalable approach lets Audi update the hardware over short time cycles in development. As a result, the brand can react quicker and more flexibly to innovations in consumer electronics that arrive on the market in quick succession, and it can optimally exploit the potentials of new generations of chips.

### Generously equipped: MMI radio plus and MMI navigation

Even the standard MMI radio plus serves up an extensive list of features – a MMI monitor with 7-inch diagonal, the driver information system, a CD drive and eight loudspeakers. A SDXC card reader, a Bluetooth interface, aux-in port, phone voice control and USB socket with charging function all ensure well-rounded entertainment and comfort.

Along with a second card reader, MMI navigation, the first module option, offers a high-resolution 7-inch monitor which shows the navigation map as a 3D terrestrial model. Other highlights are a voice dialog system, which processes entire sentences and MMI search. The Audi connect module is a LTE/UMTS module that Audi is using to bring the Audi Q5 online with up to 100 MBit/s download speed. Passengers can freely surf, stream and mail with their mobile devices via the integrated Wi-Fi hotspot. The services of Audi connect such as traffic information online, Google Earth and parking information can be used free-of-charge for three months. After that they are available at a charge. They can be extended for three years as an option.

**Audi navigation: Personal route assist**
The new Audi Q5, like the Q7 and A4, has a self-learning “personal route assist” function. After activating this function, the navigation system learns the routes and destinations that the customer regularly selects, and it associates this information to the parked position and time of day. The system learns from the customer's behavior whenever it is active. On this basis, it uses the information to suggest optimized route planning for the next trip – even if route guidance is inactive. The navigation system incorporates the three most likely destinations into the calculation, taking into consideration both the arrival time and current traffic levels. This makes it possible, for instance, to suggest activating navigation to the customer so that potential alternative routes can be proposed. The customer can activate or deactivate the function, or delete destinations saved by the function. If the function has been deactivated, the destinations are not saved, nor are deleted destinations or routes driven taken into account.

**Top infotainment system: MMI navigation plus with MMI touch**
MMI navigation plus with MMI touch or MMI all-in-touch tops the infotainment line-up. It adds an 8.3-inch monitor with 1,024 x 480 pixel resolution; in this case the driver information system monitor has a 7.0-inch diagonal. MMI touch serves as an intuitive input instrument, and a DVD drive, a 10 GB flash memory and natural voice control round out the equipment.

**Optimally networked: Audi connect services**
The optional Audi connect module offers a wide array of features. They range from navigation with Google Earth and Google Street View to traffic information online and social media such as twitter which have been specially prepared for use in the car. Practical information services on parking spaces, travel destinations, weather data and much more round out the features together with convenient reading and dictation functionality. The new Audi Q5 with Audi connect also has a mastery of emails, SMS and personal smartphone calendars.

**Europe without roaming borders: the Audi connect SIM**
As an option, Audi can install the data volume needed to use the Audi connect services in the new Q5 from the factory. The Audi connect SIM is what is known as an embedded SIM (e-SIM) that is permanently installed. The new SIM card offers a high level of usefulness, particularly to those customers who frequently travel to other European countries. In most countries, it accesses the country's provider autonomously; annoying roaming fees and confirmations are a thing of the past.

Independent of this, customers can also purchase additional data packages for the Wi-Fi hotspot. If a customer selects a European data package, the data transfer also automatically works at the same fixed rate after crossing an international border – and thus when changing internet provider. Data packages can be purchased from the online shop of Audi's partner Cubic Telecom, a leading provider of seamless global connectivity solutions. Customers can reach the shop via their myAudi account. Once the appropriate packages have been enabled, they can be ordered directly from the MMI system in the car.

As an alternative, Audi Q5 owners may also continue to use their own SIM card in the car and establish Wi-Fi internet access through their own cellular provider. In this case, the Audi connect SIM is temporarily deactivated, and the data volume used for the Audi connect services is charged against the personal SIM card.

In addition to the Audi connect SIM, the new Audi Q5 also has a second permanently installed SIM card in a very crash-safe zone in the vehicle – from the optional package it brings the services of Audi connect safety & service including vehicle control into the car. They include the myService functions emergency call, online roadside assistance, Audi claim service and Audi online service request; they are free-of-charge for ten years.
The remote services of Audi connect's myCar Manager are enabled for three years. With these, the owner of the new Q5 can use a smartphone to remotely control locking and unlocking, the auxiliary heater and to remotely access the vehicle status report and parking location and duration. Moreover, owners can be informed by the smartphone via push notification if the anti-theft warning system of their car has triggered.

**Music and much more: the Audi MMI connect app**

The free Audi MMI connect app is needed to be able to use the services of Audi connect myCar Manager. Besides remote services, the app's versatility is impressive. It lets users receive over 3,000 internet radio stations and access the media library of a smartphone. Another function, online media streaming, offers access to the products of Napster, Rhapsody and Aupeo! The audio files are transmitted from the smartphone to the car's infotainment system via Wi-Fi.

A new feature of the Audi MMI connect app is the Calendar service, which transfers a smartphone's appointment calendar to the car. Users can dial the phone number of a person to be called and can store them as a contact in the infotainment system. They can set the place of a meeting as a navigation destination. Navigation destinations can be planned on a PC or with a smartphone, according to the user's preferences. Individual navigation destinations can be sent to the car via myAudi and Google Maps or the Audi MMI connect app. Upon departure, they can be set as a destination. When the owner is using their smartphone, they can also send a navigation destination to their car from a large number of apps via the "Destination Sharing" service. They simply use the "Share" function to transfer the relevant data to the Audi MMI connect app.

**High-tech hardware: the other infotainment modules**

There are also attractive individual hardware modules to choose from in the new Audi Q5. They include tuners for digital radio and digital television. The Audi phone box, located in a movable storage compartment on the middle tunnel console, wirelessly couples the smartphone to the car's antenna by near-field coupling; this delivers ideal reception quality. If the phone is equipped for inductive charging, this can be done based on the Qi standard. Extended hands-free functionality lets users connect two cell phones simultaneously (e.g. for personal and business use) – including address books.

In the Audi sound system, a six-channel amplifier drives ten loudspeakers at 180 watts of audio power. For discerning hi-fi fans, the Bang & Olufsen Sound System with 3D sound is available in the new Audi Q5. An algorithm computes information for the third dimension from conventional stereo or 5.1 recordings. Four additional loudspeakers in the front doors and the A-pillars play back the signals – the music sounds airy and open on a large virtual stage. The 16-channel amplifier supplies 755 watts of power to 19 loudspeakers. On the door loudspeakers, narrow light pipes illuminate the aluminum accents in the loudspeaker covers.

Another high-end option in the new Audi Q5 is the Audi tablet with its high-resolution 10.1-inch screen. It appeals with its functionality, safety and convenience, and it offers a cinematic experience at the rear seats. As a mobile Rear Seat Entertainment system, it connects to MMI navigation plus via Wi-Fi. This gives it access to the Radio, Media, Navigation and Car function menus. The sound is output either over the on-board sound system or through headphones.

The Audi tablet uses the Android operating system and supports NFC technology (NFC = Near Field Communication) for transmitting data by proximity from the smartphone or for connecting headphones quickly and easily. It has a 32 gigabyte internal memory that can be expanded by micro SD card. The integrated full HD camera can be used to make video calls. After the trip, users can take the Audi tablet with them to continue to use it offline or over an external Wi-Fi network.

The Audi tablet has a chassis made of anodized aluminum, which is indicative of its high quality. Together with its rechargeable battery, it is logically designed for use in the car. It can also handle high or very low temperatures without problems; the tilt-adjustable bracket on the back of the front seat is collision-proof and removable if required. The Audi tablet is available individually or as a set of two.

The Audi smartphone interface brings Apple Car Play and Android Auto into the car. When a customer connects an iOS or Android cell phone (iOS 7.1 or higher, Android 5.0 Lollipop or higher) to the USB port, smartphone content such as Navigation, Phone, Music and select third-party apps are made available. They can be conveniently operated by MMI or voice control.

Audi has designed both applications especially for use in the car. The core content here is online music with access to the entire range of music from Google Play Music and iTunes. There are also navigation and notification functions as well as schedule reminders. New third-party apps like Pandora, Spotify and WhatsApp will further expand the range of features.

## Driver assistance systems

The new Audi Q5 raises the bar to a new level in its segment. This also applies to its broad selection of driver assistance systems. Compared to the previous model, they are either almost completely new or have been extensively further developed. Some systems are standard; the optional solutions are available either individually or as part of the Parking, City or Tour packages.

**Greater safety: the standard systems**
The standard safety system Audi pre sense city monitors the road in front of the new Audi Q5 for vehicles and pedestrians over a speed range up to 85 km/h *(52.8 mph)*. For monitoring, it uses a camera in the windshield which can monitor events up to around 100 meters *(328.1 ft)* ahead. If it detects an impending collision, the driver receives a series of warnings, and if necessary the system initiates maximum braking.

Within the system's limits, and at speeds up to 40 km/h *(24.9 mph)*, Audi pre sense city can avoid an accident in many cases; at speeds up to 85 km/h *(52.8 mph)* it can reduce the speed at impact and thereby reduce accident severity significantly. If necessary, the system can also activate the protective measures of Audi pre sense basic, front and rear: The front seat belts are pretensioned electrically, and the windows and sunroof close. In case of a crash, the also standard brake assist supports the driver by making specific brake interventions during the accident – with the goal of preventing skidding movements that could lead to secondary collisions.

Attention assist is another standard feature in the new Audi Q5. It is part of the driver information system. It analyzes driving behavior and warns drivers if it finds any indications that they are starting to lose concentration. The adjustable speed limiter, also standard, limits the vehicle's speed to the speed set by the driver. It is active from a speed of 30 km/h *(18.6 mph)*.

**Distance to the next car: adaptive cruise control**

Adaptive cruise control (ACC) is the central component of the optional Tour assist package. The system keeps the new Audi Q5 at a specified distance to the vehicle ahead. The driver can control this distance over five stages. Using Audi drive select, the driver can also adjust the control dynamics.

ACC primarily uses the signals of the two front radar sensors and the camera. In interplay with the S tronic and tiptronic, it covers the entire speed range from 0 to 250 km/h *(155.3 mph)*. With a manual transmission, it starts at 30 km/h *(18.6 mph)*. Its Stop&Go function (only with automatic transmission) brakes the new Audi Q5 to a full stop, and – if the driver wishes – it has the car start off again automatically. When the system is deactivated, the distance indicator shows the distance to the car ahead and warns drivers when they are too close.

**Autonomous steering: traffic jam assist**
Over a speed range up to 65 km/h *(40.4 mph)*, traffic jam assist can also assume certain steering tasks on roads that are in good condition, as long as the traffic is moving slowly. The system uses data from the radar and ultrasound sensors and the front camera, and it guides the car by gentle steering interventions to enable it to follow the line of vehicles ahead. It obtains its orientation from roadway markings and other vehicles on the road.

When traffic jam assist reaches its system limits – such as when the traffic jam clears up or there is a sharp curve ahead – the human driver has to take over driving tasks again. The driver is alerted in by staged alerts. If the driver ignores all of these, the system independently slows the new Audi Q5 to a safe stop. At speeds over 65 km/h *(40.4 mph)*, the car automatically and seamlessly engages Audi active land assist.

**Warning of front-end collision: Audi pre sense front**
The safety system Audi pre sense front extends the collision warning system and automatic braking function of Audi pre sense city for vehicles driving ahead to the entire driving speed range up to 250 km/h *(155.3 mph).* The system utilizes the two radar sensors and front camera and has the task of either avoiding front-end collisions or reducing their effects at higher speeds. In a dangerous situation, it prompts the driver to apply the brakes according to a complex warning concept – with visual and acoustic signals as well as a braking jolt.

If the driver does not react to the warning signals, the system first initiates autonomous partial braking while simultaneously closing the side windows and sunroof. The last step is maximum braking, assuming that the vehicle ahead is moving; at the same time the seat belts are tensioned. Audi pre sense front remains functional even when ACC is deactivated.

**For economic driving: the predictive efficiency assistant**
Another highlight in the Tour assist package is the predictive efficiency assistant (available in conjunction with a navigation system). When adaptive cruise control is activated, the system adapts the driving speed to the situation, the topography of the route, speed limits and road users driving ahead. On highways it can improve fuel economy by up to ten percent in this way.

Even if navigation is inactive, the predictive efficiency assistant uses the route data to alert the driver about situations in which it is advisable to slow down. The system detects curves, traffic circles and intersections, inclines and descents, town limits and speed limit signs before they become visible. A related message is displayed in the instrument cluster or the Audi virtual cockpit.

If the driver wishes, the system itself will control the freewheel function of the tiptronic within certain boundary conditions so that the new Audi Q5 will roll at idle speed towards the slow-driving zone. Once coasting ends, the SUV automatically accelerates back to the selected speed set by the driver, provided that ACC is enabled.

**Safety and convenience: other systems in the Tour assist package**
From a speed of 65 km/h *(40.4 mph)*, Audi active lane assist helps the driver to stay in the driving lane. The most important signal source of the system, which is also available as a separate option, is a video camera that detects lane markings. The driver is assisted by gentle interventions in the electromechanical power steering. If the setting in the MMI system is for early control intervention, the system keeps the car in the middle of the lane. A steering wheel vibration can also be set, which warns the driver if the car is leaving the driving lane.

Collision avoidance assist is another system of the Tour assist package; it assists drivers when they need to drive the Audi Q5 around an obstacle to avoid a collision. From the video camera and radar sensor data, it instantaneously computes an optimal avoidance track, taking into account the distance, width and offset of the vehicle ahead.

In conjunction with Audi pre sense front, the system initiates a warning jolt in a dangerous situation. If the driver then steers, it assists with specific torque interventions in the power steering system.

Another innovation in the Audi Q5 is turn assist, which monitors oncoming traffic when turning left at driving speeds between two and ten km/h *(1.2 – 6.2 mph)*. In a critical situation, it brakes the new SUV in a suitable driving lane to a standstill. The system is active in the background as soon as the driver activates the turn signal to turn across the carriageway.

The camera-based recognition of traffic signs (only with navigation system) rounds out the Tour assist package. It is able to detect several traffic signs simultaneously, including digital displays and supplemental signs, and it presents them to the driver as graphics in the head-up display and on the MMI monitor. In addition, it can warn the driver about driving on streets in the wrong direction.

**For urban people: the city assist package**
The City assist package includes the lane-changing assistant Audi side assist, which is also available separately. At speeds from 15 km/h *(9.3 mph)*, it uses the two rear radar sensors with a scanning range of some 70 meters (*229.7 ft)* to assist drivers when changing lanes. If a vehicle approaches rapidly or is located in the blind spot, a warning LED in the housing of the respective exterior mirror lights up. If the driver still operates the turn signal, the LED flashes brightly several times in succession.

The Audi side assist works together with Audi pre sense rear, which initiates preventive protective measures like those of Audi pre sense basic in case of an impending rear-end collision. It remains active in the background – at every speed – even if Audi side assist is turned off, unless a trailer is being towed. Audi pre sense rear also has the functionality of Audi pre sense basic, which detects unstable driving states via the sensors of stabilization control.

While slowly backing up, cross traffic assist rear warns the driver of vehicles whose approach it deems critical, such as when pulling out of a perpendicular parking spot. The data from the rear radar sensor serve as the basis. The system is enabled when the parking system is activated. There are different levels of warning: visual, acoustic and finally a short jolt of the brakes.

Exit warning, which also utilizes the rear radar sensors, comes into play after the car has stopped. If other vehicles or bicycles are approaching from behind, it warns the driver and passengers not to open the doors by having a warning LED flash bright in all four door handles. The system remains in readiness for about three minutes after the ignition is switched off.

Other systems round out the City assist package. They are: acoustic and visual park assist plus, which activates independently whenever an obstacle is detected while maneuvering, and the reversing camera, which has a cleaning system. Both solutions are also available separately.

**Helpful in everyday driving: the Park assist package**
The Park assist package includes such features as park assist, which can also be ordered separately. At moderate driving speeds, the system is able to detect parallel and perpendicular parking spaces along the side of the road. As soon as the driver presses the park button, the new Audi Q5 steers into the space, assisted by twelve ultrasonic sensors, even if it involves multiple maneuvers. The driver only needs to set the right gear, accelerate and brake. The driver can also have park assist steer out of parallel parking spaces.

The surroundings cameras, the second part of the package, were designed for complex maneuvering situations. They display different views of the car’s immediate surroundings on the MMI monitor, including a virtual bird’s eye view and 180-degree images of the front and rear. Guide lines are shown on the display to simplify maneuvering in reverse.

## Engines

At the sales kick-off of the new Q5, Audi is offering five refined, powerful and highly efficient engines: four TDIs* and one TFSI*. They cover a power range from 110 kW (150 hp) to 210 kW (286 hp) – up to 10 percent more than in the previous model. At the same time, fuel economy has been significantly improved.

All engines in the new Audi Q5 conform to Euro 6 emission limits. There is a standard 12-liter *(3.2 US gal)* tank for the additive AdBlue. A 24-liter *(6.3 US gal)* tank is available as an option. The further advanced start-stop system can already deactivate the engine at driving speeds below 7 km/h *(4.3 mph)* while coasting to a stop (3 km/h *(1.9 mph)* in the Q5 3.0 TDI).

**Excellent efficiency: the 2.0 TDI**
The 2.0 TDI* delivers many technology features. It has two balancer shafts, a cylinder pressure sensor and a common rail injection system that builds pressure up to 2,000 bar. Internal friction is low, and the oil and water pumps operate with demand-based control. High and low-pressure exhaust gas recirculation and sophisticated emissions control including an SCR system (SCR: selective catalytic reduction) keep hazardous emissions low.

The four-cylinder TDI has a displacement of 1,968 cc and is available in three versions in the new Q5. The first version outputs 110 kW (150 hp) of power and 320 Nm *(236.0 lb-ft)* of torque, the latter between 1,500 and 3,250 rpm.

The 2.0 TDI* is a particularly efficient engine in the versions available at market launch with outputs of 120 kW (163 hp) and 140 kW (190 hp) respectively. Its NEDC fuel consumption is just 4.9 liters of diesel per 100 km *(48.0 US mpg)* – which equates to $CO_2$ emissions of 129 grams per kilometer *(207.6 g/mi)*. The sprint to 100 km/h *(62.1 mph)* takes 8.9 seconds for the engine version with 120 kW with a top speed of 211 km/h *(131.1 mph)*: For the 2.0 TDI with an output of 140 kW the figures are 7.9 seconds for the sprint from 0 to 100 km/h and a top speed of 218 km/h *(135.5 mph)*. Maximum torque of 400 Nm (*295.0 lb-ft*) is available between 1,750 and 3,000 rpm.

**Immense torque and highly refined performance: the 3.0 TDI**
The new 3.0 TDI* has been intensively further developed in many aspects compared to the previous engine. The results are superlative: 210 kW (286 hp) of power, 620 Nm *(457.3 lb-ft)* of torque from 1,500 to 3,000 rpm.

The two cylinder banks of the six-cylinder engine are offset 90 degrees to one another. A balancer shaft rotates in the cylinder crankcase, which consists of high-strength yet lightweight vermicular graphite cast iron. The rigorous lightweight design concept by Audi also pays off in terms of efficiency, as do the reduced friction of the piston rings and bolts and the variably regulated oil pump.

The thermal management system partitions the circulation loops for the cylinder crankcase and the cylinder heads from one another and supplies each with coolant such that the engine comes up to its operating temperature quickly after a cold start.

The newly developed turbocharger of the 3.0 TDI builds up an absolute charge pressure of up to 2.3 bar. Its variable turbine geometry (VTG) was designed for low flow losses, and the engine responds spontaneously to throttle inputs. The external low-pressure exhaust gas recirculation (EGR) first extracts the exhaust gas after the particulate filter. This makes it possible to drive the turbocharger with the entire exhaust mass stream, which boosts efficiency in all operating zones.

The common rail system has a pressure level of up to 2,000 bar; the piezo injectors with their eight-hole nozzles can inject up to nine times per work cycle. Modifications to the intake ports – the one is designed for tumble and the other for filling – and the exhaust ports further improve air throughput.

The two emission control components are positioned very close to the engine. The first is a large NOx oxidation catalytic converter. It stores nitrogen oxides until it is full. It is cleaned by enriching the fuel-air mixture in the engine. To minimize the associated higher fuel consumption, it is only used at low exhaust gas temperatures. In all other situations, the second component handles NOx conversion: the diesel particulate filter with an SCR coating.

**High-tech gasoline engine: the 2.0 TFSI**
The re-engineered 2.0 TFSI* with its 1,984 cc of displacement is a high-tech engine. Highlights of the four-cylinder engine are integration of the exhaust manifold into the cylinder head, the rotating core module for the thermal management system, the Audi valvelift system (AVS) for the exhaust valves, the turbocharger's electric waste gate and dual injection, in which indirect multipoint injection supplements FSI direct injection at partial load. These components increase power, lower fuel consumption and emissions and improve throttle response.

The 2.0 TFSI produces 185 kW (252 hp) and delivers 370 Nm *(272.9 lb-ft)* of torque between 1,600 and 4,500 rpm. It accelerates the new Audi Q5 from 0 to 100 km/h *(62.1 mph)* in 6.3 seconds, and up to a top speed of 237 km/h *(147.3 mph)*. NEDC fuel consumption is just 6.8 liters per 100 km *(34.6 US mpg)*, which equates to 154 grams $CO_2$ per km *(247.8 g/mi)*.

## Drivetrain

The new Audi Q5 is launching with a wide variety of technologies for power transmission – with manual, S tronic and tiptronic transmissions and with front-wheel and quattro drive. The ideal solution is provided for each engine; all of the transmissions have undergone re-development or in-depth modification.

**The right solution for every customer: the transmissions**
The 2.0 TDI* with 110 kW (150 hp) operates exclusively with a manual six-speed transmission. The seven-speed S tronic is available as an alternative for the versions with 120 kW (163 hp) and 140 kW (190 hp). The transmission cases of the manual transmissions consist of ultra-light magnesium in many areas. Perforated gear wheels, hollow shafts and a weight-optimized clutch reduce weight further – the new transmission is 16 kg *(35.3 lb)* lighter than the previous unit. The new spur gear stage to the front differential exhibits great advantages in terms of friction and installation space.

The seven-speed S tronic is available as an option for the more powerful four-cylinder TDI engines, and is standard in the 2.0 TFSI model. The dual-clutch transmission impresses with a high level of efficiency. Its compact multiplate clutches are arranged axially in series instead of radially over one another as in the previous unit. This reduces drag torque. The reduced friction, considerably reduced weight, highly efficient oil supply and centrifugal pendulum on the dual-mass flywheel also contribute towards improving fuel economy. The centrifugal pendulum enables very low engine idling speeds.

Both clutches of the seven-speed S tronic operate two independent sub-transmissions, whose construction is similar to that of manual gearboxes. Both are continuously active, but only one is connected to the engine at any given time. Gear changes are performed within a few hundredths of a second and with no interruption in the power flow by changing the clutches. From the output shaft, torques flow via a spur gear stage to the front differential.

**Smooth and fast gear shifts: the eight-speed tiptronic**
The 3.0 TDI in the new Audi Q5 has an eight-speed tiptronic as standard equipment. The engine operates near its ideal load point very frequently, because of the large number of gears of the smooth, fast and spontaneously shifting torque-converter automatic. A speed-adaptive absorber enables the V6 diesel to turn at at a low speed of around 850 rpm. The layout of the gear sets and shifting elements provide for low drag torques and thus high efficiency.

Both the eight-speed tiptronic and the seven-speed S tronic demonstrate the latest state-of-the-art technology. Their lower gears feature short, sporty ratios, while the upper gears are long to reduce revs and fuel consumption. The automatic transmissions are integrated into the engine’s thermal management and designed for start-stop operation. Drivers can choose between the modes D, S and E, and shift gears manually at any time using either the elegant selector lever or the standard shift paddles on the steering wheel. All commands are transmitted by wire, i.e. electrically, to the transmission.

In interplay with the new cruise control system, the S tronic and tiptronic offer a powerful efficiency function: If the driver releases the accelerator pedal between 55 and 160 km/h *(34.2 - 99.4 mph)* in the D or E mode, the transmission switches to freewheeling, provided that this enables fuel savings. If the optional predictive efficiency assistant and adaptive cruise control Stop&Go including traffic jam assist are installed, the coasting function has very good predictive control.

**Next-generation all-wheel drive: quattro with ultra technology**
The new Audi Q5 2.0 TDI with 110 kW (150 hp) comes off the assembly line with front-wheel drive as standard equipment. The quattro all-wheel drive system is available as an option here; it is standard for all other engine models. With the exception of the 3.0 TDI, all Q5 versions have the completely newly developed quattro with ultra technology. It offers maximum efficiency and does not perceptibly differ from permanent systems in terms of traction and driving dynamics.

Control of the new quattro drivetrain operates predictively. Networked throughout the vehicle, it acquires and evaluates data – in ten millisecond cycles – such as the steering angle, transverse and longitudinal acceleration and engine torque.

As long as the new Audi Q5 is driving with a moderate type of gear and there is no risk of tire slip, the quattro with ultra technology benefits from all of the advantages of a front-wheel drive. If all-wheel drive is needed, it is immediately available. It is engaged in two stages – predictive and reactive.

On the predictive level, the focus is on data supplied by the networked systems. From this data the control unit computes, for instance, the point at which the front tire on the inside of the curve will reach its grip limit during fast cornering; it computes this around one-half second in advance. If the wheel approaches the grip limit at a defined threshold value, the all-wheel drive system is activated.

The control unit’s decision on whether to predictively engage the all-wheel drive is primarily based on the driver’s style of driving, the status of the Electronic Stabilization Control (ESC) and the mode selected in the Audi drive select system. In reactive engagement, the system reacts to sudden changes in friction, and it engages the quattro drive. These changes might occur, for example, when the wheels go from dry asphalt to a sheet of ice.

Networking of the quattro drive with Audi drive select means that drivers of the new Audi Q5 can adjust the properties of the quattro drive according to their personal preferences. The auto mode represents maximum traction and balanced handling properties. In the dynamic mode, the torque is redirected to the rear axle earlier and at higher levels – this increases dynamic performance, especially when pavement friction values are low.

The crucial efficiency gains compared to the competition are rooted in the concept of the two clutches in the drivetrain. When the system changes to front-wheel drive, the front clutch – a multi-plate clutch at the transmission outlet – disconnects the propshaft. An integrated decoupling clutch also opens in the rear differential. It shuts down those components that cause the most drag losses here, such as the large crown wheel running in the oil bath. Despite the new parts, the quattro with ultra technology is nearly four kilograms *(8.8 lb)* lighter than the previous system.

**Purely mechanical: quattro permanent all-wheel drive in the 3.0 TDI**
The new Audi Q5 3.0 TDI* still uses the quattro permanent all-wheel drive system, which operates purely mechanically. During normal driving, the limited-slip center differential directs 60 percent of engine torque to the rear axle and 40 percent to the front. If necessary, it can distribute up to 70 percent of these forces to the front, or up to 85 percent to the rear. These high locking figures enable a clearly defined torque distribution and a highly precise interplay with control systems.

In both of these quattro systems, and with front-wheel drive, the further developed wheel-selective torque vectoring acts as a partner – it is active on all types of road surfaces. In dynamic cornering, the software function minimally brakes the front wheel on the inside of the curve (for front-wheel drive) or both wheels on the inside of the curve (for quattro drive) before they experience slip. Due to the difference in propulsive forces, the car turns itself into the curve ever so slightly. Turn-in behavior remains neutral longer, making handling even more precise, agile and stable.

**Active torque shifting: the sport differential**
The sport differential, available as an option for the 3.0 TDI, optimizes handling even more – it actively distributes torques between the rear wheels via two superposition stages. During fast driving, the sport differential literally pushes the car into the curve, which eliminates even the onset of understeer. Its management is integrated into the Audi drive select control system, and it runs over a central control unit, the electronic chassis platform. The sport differential in the new Audi Q5 responds even quicker than in the previous model, and it is around one kilogram *(2.2 lb)* lighter.

## Chassis

The chassis harmonizes ideally with the character of the new Audi Q5 – it is sporty, comfortable and efficient. It was redeveloped in many areas, and it shows further weight saving compared to the previous model. The five-link constructions, which serve as the front and rear suspensions, are able to handle lateral and longitudinal forces separately.

The new SUV from Audi can continue to drive where the asphalt ends. Its axles enable good axle articulation, and its ground clearance (with the normal chassis) measures 208 mm *(8.2 in)*. The vehicle's approach angle is 25 degrees and its departure angle is 27 degrees, while its ramp angle measures 17 degrees.

The front suspension has a track width of 1,616 mm *(5.3 ft)*. Its suspension links and pivot bearings are made of forged aluminum. The damper knuckles are made in a new type of process. It combines casting and forging and enables complex geometries of high strength. The friction-optimized wheel hub, made of forged steel, and the subframe made of aluminum and sheet steel also exhibit very lightweight designs.

**Highly efficient: electromechanical power steering**
The new power steering system, which cooperates closely with some of the driver assistance systems, has also been weight-optimized. It saves 0.7 kg *(1.5 lb)* and above all a lot of energy, because its electromechanical drive operates much more efficiently than a hydraulic system in which oil is continually circulating. Its steering gear is placed at the level of the wheel center, and it transfers forces directly to the wheels.

Steering in the new Audi Q5 conveys precise road contact, and it responds directly and offers high precision. Its power assist is reduced as the driving speed increases. For all engines with automatic transmission, there is the optional dynamic steering. Using a superposition gear, it varies its gear ratio primarily according to the driving speed and steering angle: more direct at slower speeds and for large steering angle inputs, and more indirect for expressway driving and small adjustments at the steering wheel. At cornering limits, the system counter steers with tiny pulses, which further boosts dynamics and driving safety.

At the rear of the new Audi Q5, a five-link suspension replaces the trapezoidal-link suspension of the previous model. Its weight-optimized and yet rugged wheel suspensions are made of steel or aluminum. The wheel suspensions are made of aluminum and the subframe of high-strength steel; elastomeric mounts with precisely defined damping properties join it to the body. As in the front suspension, the lightweight anti-roll bar is formed as a tube. The rear track width is 1,608 mm *(5.3 ft)*.

The new Q5 offers a choice of chassis variants. Along with the standard suspension tuning, a sport suspension is also available. It is part of the S line sport package, which also includes 19-inch alloy wheels and numerous special interior solutions.

**For engine models with quattro: suspension with damper control**
An especially attractive solution is the suspension with damper control, which is available for all engine versions with a quattro drive. Its design is based on the CDC principle (CDC: continuous damping control): Electromagnetically actuated valves in the damper piston alter the through-flow cross-sectional area for the hydraulic fluid as necessary.

Management of the CDC dampers is incorporated into the electronic chassis platform – the newly designed control unit for the different chassis systems replaces the separate processors of the previous model. The electronic chassis platform processes a lot of information to generate a precise image of the current driving situation and the friction value of the road surface.

This lets it manage the individual systems with high precision, and its computing cycle is just milliseconds. In damper control, the spread between comfortable and dynamic driving is even greater and can be experienced much more than in the previous model. Operating speed has increased by around 50 percent, and energy consumption has been reduced.

**Many driving modes: Audi drive select**
Drivers of the new Audi Q5 can fine tune the work of damper control according to their own preferences. Just as for dynamic steering and the sport differential (options for the 3.0 TDI*), it is subject to control by the Audi drive select handling system. This system is a standard feature of all new Q5 versions, and it makes the driving experience even more well-rounded.

In the basic configuration, Audi drive select intervenes in the operation of the throttle, automatic transmission, steering and automatic air conditioning. The driver can select the comfort, auto, dynamic, efficiency and offroad modes at the touch of a button. In conjunction with an MMI navigation system, there is also an individual mode that is largely user-configurable.

If the optional air suspension with damper control and adaptive air suspension with adaptive damping are installed, the allroad mode is added and the offroad mode becomes lift/offroad. This lets the new Q5 achieve maximum offroad capability.

**Always the ideal setup: adaptive air suspension**
The air suspension with damper control also enables ride height control. The system is another new development for the Audi Q5. In the front suspension struts, air springs enclose the shock absorbers; these two components are implemented separately in the rear suspension. The compressor is located between the rear wheels. It fills a pressure reservoir, which is a low-profile tank located under the driver's seat. In most situations, the pressure reservoir feeds the air spring bellows – it does this much faster than the compressor and its operation is nearly silent.

Overall, the adaptive air suspension lowers the body 22 mm *(0.9 in)* compared to the steel suspension. The system sets the ideal body position for every driving situation. In the lift/offroad mode of Audi drive select (up to 35 km/h *(21.7 mph)* speed), the body is 45 mm *(1.8 in)* higher than the normal level; in allroad mode (up to 80 km/h *(49.7 mph)*) it is still 25 mm *(1.0 in)* higher.

In the dynamic mode, the body is lowered 15 mm *(0.6 in)*. In the other modes, this lowering automatically begins at a driving speed of around 120 km/h *(74.6 mph)*. This increases driving stability and improves aerodynamics. For comfortable loading, the rear body can be lowered 55 mm *(2.2 in)* by pushing a button in the luggage compartment.

**On sure footing: the wheels and brakes**
The base line of the new Audi Q5 has 17-inch alloy wheels which are especially light at just around 9 kg *(19.8 lb)* per wheel. The design and sport lines offer 18-inch wheels in various designs. In the S line sport package and in the Audi design selection the wheel format is 19 inches. The options program from Audi and Audi sport covers numerous versions with 18-, 19- and 20-inch diameters, and the top format, 8.5 J x 21, will follow shortly after the market launch. For the 17-inch wheels, there is a version in an aero design with low aerodynamic drag.

Rigorous lightweight design can also be seen in the wheel brakes. In all engine versions of the Audi Q5, the front wheels are braked by very lightweight aluminum fixed caliper brakes, either 16 or 17 inches in diameter, and depending on the version with either four or six pistons.

The front wheels are equipped with internally-vented discs up to 350 mm *(13.8 in)* in diameter. The electromechanical parking brake is integrated into the rear axle and features new holding and drive-off functions. Many aspects of Electronic Stabilization Control (ESC) have been extensively updated; it is now even more precise and sensitive than in the previous model. Activating sport mode will largely deactivate engine intervention and somewhat minimize braking intervention.

While the new Audi Q5 offroad is being driven, the system allows more slip during braking and acceleration to improve traction. Another ESC function is hill descent control – when driving down a descent in an offroad situation, the system controls vehicle speed according to the driver's desired speed over a range between four and 30 km/h *(2.5 to 18.6 mph)*. In conjunction with MMI navigation, a tilt angle indicator is installed when either the adaptive air suspension or damper control is ordered. The indicator shows the vehicle's pitch and roll angles on the large MMI monitor. Supplemental screens show other offroad information.

## The Audi Q5 security

Audi has identified South America as a pilot market for offering the Q5 for the first time in an armored vehicle version – the Audi Q5 security is the world's first SUV in the segment to be offered in an armored version from the factory. On its exterior, it is practically indistinguishable from the usual production models, but it fulfills the requirements of ballistics class VR4 in accordance with the VPAM standard. In addition, the protective parts used were certified to the NiJ III-A class of ABNT NBR 15000 that is widely used in South America. This signifies that the Q5 security resists attacks by handguns up to 44-magnum in caliber and thereby protects its passengers effectively against attacks.

The security cell of the armored SUV incorporates the passenger compartment including the luggage compartment which can also be accessed from the interior. The doors, tailgate, roof and side walls as well as the firewall to the engine compartment are reinforced with parts made of high-strength steel. The car's windows consist of multi-layer bulletproof glass. Power window actuation is standard in the front windows and optional in the rear windows. Audi considered the special protection features early in the planning process. Installing them at the factory offers decisive benefits compared to retrofit solutions. The ballistic cell is constructed so that occupants are excellently protected even if attackers shoot into the seam areas.

The engine used in the Audi Q5 security is the 2.0 TFSI* with 185 kW (252 hp). Its power is transferred via a seven-speed S tronic and a quattro permanently available all-wheel drive system with ultra technology. The sprint from 0 to 100 km/h *(62.1 mph)* takes 7.9 seconds; its top speed is 235 km/h *(146.0 mph)*. The combined fuel consumption of the Audi Q5 security is 8.2 liters fuel per 100 km *(28.7 US mpg)* (187 grams $CO_2$ per km *(300.9 g/mi)*).

Its adaptive air suspension with damper control has been tuned for the higher weight of the armored SUV – it has an unladen weight (without driver) of 2,295 kg *(5059.6 lb)*. The 19-inch wheels have run-flat properties. The brake system is very generously sized. The front discs measure 350 mm *(13.8 in)* in diameter and are braked by black, six-piston calipers.

The Q5 security comes off the assembly line with wide-ranging features. Dark privacy glass for the rear is standard as are a three-zone automatic air conditioning and the Bang & Olufsen Sound System with 3D sound. Optional features include an electric drive for the tailgate and a hazard alarm system with intercom system for safe communication with the outside world.

The sales launch of the armored model will coincide with the launch of the standard Q5. The vehicle will be produced at the San José Chiapa plant and at a manufacturing site in Puebla. The production process for the Q5 security conforms to the rigorous quality standards of Audi and not only offers the usual high quality of workmanship but, in contrast to vehicles that are retrofitted with armor, they are fully warrantied by Audi.

## Production of the Audi Q5

The Audi Q5 will roll off the assembly line at the recently constructed production site at San José Chiapa, Mexico. Over the 460 hectare plant area (including the Just-In-Sequence park), a state-of-the-art production site has been created for the company – and it is the plant located at the highest elevation within the Audi production network at 2,400 meters *(7,874.0 ft)*. AUDI AG invested more than one billion euros in its facilities and infrastructure. Part of this sum went into building the most eco-friendly paint shop on the American continents.

The new plant, located around 200 km *(124.3 mi)* east of Mexico City, has been designed for an annual capacity of 150,000 cars. Audi has selected around 180 suppliers. At the production launch, Audi México will procure more than 65 percent of its supplies from local value creation, and the localization level will be further extended over the mid-term.

Audi México relies on smart logistics. The plant is equipped with RFID (Radio Frequency Identification) antennas, which enable flexible coordination of production and supplier chains. San José Chiapa is the first production site in the Volkswagen Group to use this technology for all of its material and container flows.

The new plant was built according to applicable Audi standards, and this also applies to sustainability and environmental protection. These areas were key focal points in planning. The production site is wastewater-neutral thanks to its mechanical, chemical and biological process water treatment facility. The same principle applies to $CO_2$ emissions from production ($CO_2$ neutrality). In the neighboring community of San José Ozumba, the company has already planted more than 100,000 trees over 100 hectares of land, thereby contributing to replenishment of groundwater reserves.

Corporate responsibility is a fixed component of the Audi strategy. The new Audi plant in Mexico, the world's most advanced plant, promotes environmental, societal and economic sustainability and is actively shaping the future of the region.

By the end of 2016, around 4,200 people will be employed at the San José Chiapa site – a development from which the economy of the entire region will benefit. In addition, there are 320 apprentices, and 80 apprenticeship positions are planned per year.

**Environmental balance**

The environmental balance of the new Audi Q5 is very good. Thanks to weight reduction and more efficient engines, the Q5 yields good results in the life-cycle assessment – from procuring its raw materials to the production process and 200,000 kilometers *(124,274.2 mi)* of driving until it is recycled. Compared to the previous model, savings of six percent have been achieved in greenhouse emissions. Thanks to intelligent material selection, greenhouse emissions in the production phase are already lower than for the previous model. This environmental advantage is further reinforced over every kilometer during the product use phase.

## Audi Q5 – the success story

The new Audi Q5 is making its appearance to continue a story of success. Its predecessor model was the world's best-selling SUV in the premium mid-size segment for six years. From its production launch in 2008, Audi has sold around 1.6 million units.

The first generation Q5 celebrated its debut in April 2008 at the Auto China show in Beijing, and it was introduced on the market just a few months later. The SUV with the four rings appealed with its sporty-versatile character and state-of-the-art technology. The three turbocharged engines that were offered had power outputs from 125 kW (170 hp) and 176 kW (240 hp), and a newly developed seven-speed S tronic could transfer engine forces to an optional quattro drivetrain.

In subsequent years, Audi progressively extended its engine line-up – with power-enhanced evolutionary stages, new four-cylinder engines and powerful V6 gasoline engines. In the model changeover of 2012, which included many new solutions in infotainment and assistance systems, two entirely new variants were added to the line-up: the Q5 hybrid quattro, which could drive all-electrically for short distances, and the SQ5 TDI, the first S model from Audi to have a diesel engine. Its sonorous biturbo V6 had a power output of 230 kW (313 hp), and in the final evolutionary stage in 2015 it even output 250 kW (340 hp) and 700 Nm *(516.3 lb-ft)* of torque.

The Audi SQ5 TDI became a top-selling vehicle – like the entire model series. From 2009 to 2015, the Q5 established itself as the world's most successful SUV in its class, winning over an above-average share of new customers for Audi. In its last full sales year, it still dominated in markets of all key sales regions – especially in China where it had a 65 percent share in its segment. Production sites in Changchun, China and Aurangabad, India supplemented production at the main plant in Ingolstadt.

The new Audi Q5, which is produced in Mexico, is launching into an SUV market that continues to grow worldwide with great dynamism. Its market launch will be at the beginning of 2017.

**Fuel consumption of the models named above:**

**Audi Q5 2.0 TDI (110 kW/150 hp)**
This vehicle is not yet on sale. It does not yet have type approval and is therefore not subject to Directive 1999/94/EC.

**Audi Q5 2.0 TDI (120 kW/163 hp)**
Combined fuel consumption in l/100 km: 5.2 – 4.9** *(45.2 – 48.0 US mpg)*;
Combined $CO_2$ emissions in g/km: 136 – 129** *(218.9 – 207.6 g/mi)*

**Audi Q5 2.0 TDI (140 kW/190 hp)**
Combined fuel consumption in l/100 km: 5.2 – 4.9** *(45.2 – 48.0 US mpg)*;
Combined $CO_2$ emissions in g/km: 136 – 129** *(218.9 – 207.6 g/mi)*

**Audi Q5 3.0 TDI (210 kW/286 hp)**
This vehicle is not yet on sale. It does not yet have type approval and is therefore not subject to Directive 1999/94/EC.

**Audi Q5 2.0 TFSI (185 kW/252 hp)**
Combined fuel consumption in l/100 km: 7.1 – 6.8** *(33.1 – 34.6 US mpg)*;
Combined $CO_2$ emissions in g/km: 162 – 154** *(260.7 – 247.8 g/mi)*

**Audi Q5 Security 2.0 TFSI (185 kW/252 hp)**
Combined fuel consumption in l/100 km: 8.2 *(28.7 US mpg)*;
Combined $CO_2$ emissions in g/km: 187 *(300.9 g/mi)*

***Fuel consumption and $CO_2$ emission figures given in ranges depend on the tires/wheels used as well as the engine/transmission version.*