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Advance Look at the Series: The Audi Q4 e-tron concept

- **Compact electric SUV with all-wheel drive presented at Geneva Motor Show**
- **Range of more than 450 kilometers thanks to versatile efficiency technologies**
- **Production version to be launched at the end of 2020 as the Audi brand's fifth electric model**

Ingolstadt/Geneva, March 5, 2019 – It has been roughly a year since the first series production Audi with electric drive made its debut at the same location: The Audi e-tron* was still covered in camouflage wrapping foil at that point. The brand with the four rings is now giving an advance look at a further automobile with an all-electric drive at the Geneva Motor Show: The Audi Q4 e-tron concept is a compact four-door SUV with an exterior length of 4.59 meters whose relation to the Audi e-tron is apparent at first glance.

Two electric motors mobilize 225 kW of system power in the Q4 e-tron concept. As is typical for Audi, the driving power of the concept vehicle is brought to the road with quattro all-wheel drive. Thanks to excellent traction, it accelerates from zero to 100 km/h in just 6.3 seconds. It reaches its maximum speed at an electronically limited 180 km/h. A large battery with a capacity of 82 kilowatt hours takes up almost the entire space in the underbody area between the axles. The range of over 450 kilometers – in line with the WLTP standard – sets the benchmark in its class. The technology of the Q4 e-tron concept controls the modular electrification platform (MEB) that will be integrated in numerous electric vehicles produced by the Volkswagen Group in the future, from the compact class to the superior medium-size class.

The Audi Q4 e-tron concept gives an advance look at what will already be the fifth series production electric vehicle that the manufacturer will introduce by the end of 2020. Sales of the Audi e-tron have already started, and the first vehicles will be delivered to the customers before the end of March 2019. Later this year, the Audi e-tron Sportback will be presented, and the Audi Q2L e-tron, which was designed specifically for the Chinese market, will roll off the assembly line. The presentation of the production version of the four-door high-performance coupé Audi e-tron GT, which is being developed at Audi Sport GmbH, is planned for the second half of 2020. The compact Audi Q4 e-tron is to make its production debut at the same time. With this offer, Audi now covers all important market segments with all-electric drive vehicles, from the A segment to the full-size class, just under two years after the launch of the first electric car.

* The collective fuel consumption values of all models named and available on the German market can be found in the list provided at the end of this MediaInfo.

Compact on the outside, spacious on the inside: dimensions and interior
4.59 meters long, 1.90 meters wide, 1.61 meters tall: With its dimensions, the Audi Q4 e-tron concept takes its position in the upper third of the compact class. Its road space requirements thus qualify the electric SUV as an agile all-rounder that is suitable for city driving as well. In terms of the interior, by contrast, its wheelbase of 2.77 meters puts it at least one class higher. As there is no transmission tunnel restricting the space, the Q4 e-tron concept offers unsuspected spaciousness and comfort, especially in terms of legroom both at the front and in the rear.

The sense of spaciousness is underlined by the color scheme. While light, warm colors dominate the upper section of the cabin, the dark carpet in the floor section provides a contrast. The headlining, the window pillars and the upper section of the door rail and dash panel are fitted with white and beige microfiber textiles. In the Audi e-tron concept, sustainability is the top priority not only in terms of the electric drive: The floor covering is made of recycled materials. Instead of chrome-plated metal decor frames, the surfaces are covered with a high-quality multi-layer paint finish. The painted frosted Plexiglas on the applications creates an intensive depth effect. Four seats with integrated head restraints are upholstered with comfortable Alcantara material manufactured with exquisite workmanship. Double seams stitched with thick yarn adorn the upholstery.

The display of the virtual cockpit with the most important display elements for speed, charge level and navigation is located behind the steering wheel. The large-format head-up display with an augmented reality function is a new feature. It can display important graphical information, such as directional arrows for turning, directly on the course of the road.

Control panels designed as touch elements on the steering wheel spokes can be used to select frequently used functions. In the middle above the center console, there is a 12.3 inch touchscreen via which the infotainment and vehicle functions are displayed and operated. It is tilted toward the driver for greater ease of operation. A strip of buttons for controlling the air conditioning is located below it. As the center console does not need to hold functional elements such as a gear lever or hand brake actuation elements, it is designed as a spacious stowage compartment that includes a cell phone charging cradle. There is a horizontal area in high-quality design into which the selector button for the transmission mode is integrated and that also serves as a cover for the front section of the console. In addition to the conventional lower storage compartment, the doors now provide the possibility to store bottles in the specially molded upper section, where they are easy to reach.

Visibly Audi, visibly e-tron: the exterior
The Q4 e-tron concept is identifiable as an Audi at first glance by the Singleframe with the brand logo, the four rings. And it will take no more than two glances to see that this is an electric Audi e-tron: Like the first production Audi with electric drive, the new concept vehicle also features a structured closed surface within a broad, almost upright octagonal frame in place of a traditional radiator grille. Air is supplied via large inlets that extend from below the two matrix LED headlights all the way down to the front apron.

The prominently modelled fenders of all four wheels are a further classic Audi design feature that distinguishes the brand. The widened features of the Q4 e-tron concept are designed to be highly organic and flowing, and they add a characteristic touch to the side view. The accentuation of the rocker panel area between the axles, where the battery and thus the powerhouse of this SUV is located, is a typical feature of the e-tron. Large 22 inch wheels leave no doubt about the potential of the Audi e-tron concept. Its roof line slants down slightly toward the back, giving the silhouette a particularly dynamic look.

The striking broad light band that connects the two lamp units on the rear end of the Audi Q4 e-tron concept was incorporated to reflect an element of the Audi e-tron. The relation within the e-tron family becomes visible even here. This also applies to the inside of the lights, where the significant sweep of the LED segments is also reminiscent of an element of the older brother.

Finally, the body paint in “Solar Sky,” a shade of blue that changes depending on the angle of the light, is a sustainable innovation in two senses: The paint, which was developed specifically for the Audi Q4 e-tron concept and produced under environmentally friendly conditions, effectively reflects a short-wave fraction of sunlight, near the infrared spectrum. This reduces the build-up of heat on the surface of the body and the interior significantly. This benefits the subjective well-being of the occupants while at the same time reducing the energy input required for the air conditioning, which is then not needed as much to cool the vehicle interior on warm days. This, in turn, improves the range and the global carbon footprint of the Q4 e-tron concept.

Efficient performer: drive system and suspension
The modular electrification platform (MEB) offers a broad range of drive variants and power levels. The performance version of the electric drive is installed in the Audi Q4 e-tron concept. The front and rear axles are each powered by an electric motor – the Q4 is a quattro. There is no mechanical connection between the axles. Instead, an electronic control ensures that the torque distribution is coordinated optimally, and it does so in fractions of a second. That enables the electric SUV to achieve optimum traction in all weather conditions and on any type of surface.

In most cases, the Audi Q4 e-tron concept mainly uses its rear electric motor, a permanently excited synchronous motor, in order to achieve the highest efficiency. For reasons of efficiency, the drive torque is generally distributed with a rear-axle bias. If the driver demands more power than the rear electric motor can supply, the electric all-wheel drive uses the front asynchronous motor to redistribute the torque as required to the front axle. This also happens predictively even before slip occurs in icy conditions or when cornering fast, or if the car understeers or oversteers.

The electric motor in the rear end has an output of 150 kW and mobilizes a torque of 310 newton meters; the front engine supplies the front wheels with up to 75 kW and 150 newton meters. The system power is 225 kW. The battery in the vehicle floor stores 82 kilowatt hours, which allows for a range of more than 450 kilometers according to the WLTP standard. The battery is charged with a maximum of 125 kilowatts. As a result, it takes hardly more than 30 minutes to return to 80 percent of the total capacity.

However, the recipe for this excellent range involves far more than just a battery with a large capacity. Like the first member of the family, the Audi e-tron, the Audi Q4 e-tron concept is also a versatile artist when it comes to efficiency. From the low aerodynamic drag of the body, whose C_d value is 0.28, to the sophisticated recuperation strategy, the compact SUV uses every opportunity to optimize its range. The complex thermal management of the drive and battery, which involves a CO_2 heat pump, also contributes to this.

Sporty, precise handling

A key factor for the sporty character and outstanding transverse dynamics is the low and central position at which the drive components are installed. The high-voltage battery system is optimally matched to the dimensions of the Audi Q4 e-tron and is located between the axles in the form of a flat, broad block beneath the passenger compartment. The battery system weighs 510 kilograms. The center of gravity of the Audi Q4 e-tron concept is therefore at a similar level to that of a sedan with a conventional drive system. Axle load distribution is perfectly balanced at almost 50:50. The front wheels of the Q4 e-tron concept are guided on a MacPherson axle with adaptive dampers. In the rear, there is a multi-link axle with separate springs and adaptive dampers.

The modular electrification platform MEB: the base
MLB, MQB – modular longitudinal platform and modular lateral platform: These component systems for vehicle development represent a great success story in all segments of Audi and the Volkswagen Group. Previous platforms were designed primarily for the use of combustion engines. What is new and different about the modular electrification platform: It was designed specifically and exclusively for automobiles with electric drive systems. Axles, drives, wheelbases and the interaction between all components are selected and adapted specifically for e-mobility. The placement of the large-volume battery units and their geometry can be optimized without having to make concessions to other drive concepts that must always be taken into account in the MLB and MQB.

At the same time, huge synergy potential can be opened up with the MEB. This platform serves as the basis primarily for electric cars in the high-volume A segment. It allows the best technology available to be developed jointly across brands and used in many different electric cars. In particular, the MEB also helps electric mobility to break through even in the particularly price-sensitive compact segment.

Electric offensive: twelve all-electric drive models by 2025
The brand with the four rings launched its electric offensive with the world premiere of the all-electric SUV Audi e-tron in September 2018. By 2025, Audi will offer twelve automobiles with all-electric drive in the most important markets worldwide and achieve roughly one-third of its sales with electrified models. The SUVs within this portfolio include the e-tron and the e-tron Sportback due to make its debut in 2019. In addition, there will be a range of models with classic body layout such as Avant and Sportback. The range will cover every relevant market segment from the compact class to the luxury class.

The Audi e-tron GT concept show car, a highly dynamic coupé with a low floor, made its debut at the Los Angeles Auto Show 2018. The technology in this automobile was developed in collaboration with Porsche; the design and character of the e-tron GT concept are packed full of unmistakable Audi DNA. The project will be developed into volume-production models by the end of 2020.

The Premium Platform Electric (PPE) is a special joint project of the development departments at Audi and Porsche. It will be the foundation for multiple Audi model families with all-electric drive covering the high-volume B through D segments.

– End –

Fuel consumption of the models named above

(Fuel consumption and CO_2 emission figures given in ranges depend on the equipment selected)

Audi e-tron:
Combined electrical consumption in kWh/100 km: 26.2–22.6 (WLTP); 24.6–23.7 (NEDC)
Combined CO_2 emissions in g/km: 0

Further information on official fuel consumption figures and the official specific CO_2 emissions of new passenger cars can be found in the "Guide on the fuel economy, CO_2 emissions and power consumption of all new passenger car models," which is available free of charge at all sales dealerships and from DAT Deutsche Automobil Treuhand GmbH, Hellmuth-Hirth-Str. 1, 73760 Ostfildern-Scharnhausen, Germany (www.dat.de).

The **Audi Group**, with its brands Audi, Ducati and Lamborghini, is one of the most successful manufacturers of automobiles and motorcycles in the premium segment. It is present in more than 100 markets worldwide and produces at 18 locations in 13 countries. 100 percent subsidiaries of AUDI AG include Audi Sport GmbH (Neckarsulm), Automobili Lamborghini S.p.A. (Sant'Agata Bolognese, Italy) and Ducati Motor Holding S.p.A. (Bologna, Italy).

In 2018, the Audi Group delivered to customers about 1.812 million automobiles of the Audi brand, 5,750 sports cars of the Lamborghini brand and 53,004 motorcycles of the Ducati brand. In the 2017 fiscal year, AUDI AG achieved total revenue of €60.1 billion and an operating profit of €5.1 billion. At present, approximately 90,000 people work for the company all over the world, more than 60,000 of them in Germany. Audi focuses on sustainable products and technologies for the future of mobility.