



Mission:Zero – Audi in Neckarsulm is shaping the future of production, consistently and sustainably

- **Company’s environmental program pursuing goal of achieving net-carbon-neutrality at all production sites worldwide by 2025**
- **Neckarsulm site taking responsibility for the environment with numerous innovative measures and flagship projects**
- **Focus on four areas of activity: decarbonization, water use, resource efficiency, and biodiversity**

Neckarsulm, July 26, 2021 – As the largest industrial company in the region, the Audi site in Neckarsulm is committed to meeting its responsibility to the community and nature. The site is implementing numerous measures as part of the “Mission:Zero” environmental program launched in 2020, thereby playing an important role in making automotive production as environmentally friendly and resource-efficient as possible and avoiding carbon emissions and waste. At the Böllinger Höfe sports car production facility, the Audi e-tron GT* is already being manufactured net carbon-neutral thanks to the exclusive use of green power and heat from renewable sources. The goal is to achieve net carbon-neutrality from all production processes at the entire Neckarsulm site by 2025.

Climate change, water consumption, resource scarcity, and the loss of biodiversity affect everyone and are among the major challenges of the present day. With its clear commitment to the terms of the Paris Agreement, Audi has pledged to actively work to create a livable environment and a sustainable future. Audi has combined all of its measures to reduce its carbon footprint in production and logistics in its cross-site environmental program Mission:Zero.

The Neckarsulm site is setting an excellent example in Mission:Zero’s four fields of activity – decarbonization, water use, resource efficiency, and biodiversity – through the implementation of innovative, sustainable projects.

Decarbonization – on the path to a net carbon-neutral location

Audi aims to manufacture its vehicles net-carbon neutral at its sites by 2025. Countless measures along the value chain are contributing to AUDI AG’s vision of achieving net carbon-neutrality across the entire company by 2050. Böllinger Höfe is the first production facility operated by the brand with the four rings in Germany to produce an all-electric Audi – and do so net carbon-neutral. The Audi e-tron GT is a prime example of how to combine high performance and environmental awareness. Audi uses biogas for the CHP plant that supplies heat and part of the electricity for production at Böllinger Höfe. Audi offsets emissions that cannot currently be avoided through renewable energy sources or self-supply by means of carbon credits from certified offsetting projects.

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 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.



The entire Neckarsulm site, including Audi Sport production, has already been using eco-electricity since the beginning of 2020. The buildings on the factory site are continuously optimized with respect to their energy efficiency in order to reduce energy consumption. At the five Audi sites, a total of almost 100 full-time energy officers are working to identify and exploit new energy savings potential in production. The result was that in 2020, Audi even exceeded its energy-saving targets, saving a total of more than 83,000 megawatt hours of energy across all of its sites and at the same time emitting around 11,900 tons less carbon.

Achieving net carbon-neutrality from automotive production is only possible if the entire value chain is optimized from an environmental perspective. At the Neckarsulm site, aluminum sheet scraps have already been returned to the supplier since 2017 as part of the “Aluminum Closed Loop” cycle, where they are recycled and reprocessed for Audi to use once again. The use of secondary aluminum reduces energy consumption by up to 95 percent compared to the use of primary aluminum. In the meantime, this cycle is now also in use at the Ingolstadt and Győr plants. Since its introduction, Audi has achieved net savings of more than 525,000 metric tons of carbons.

Audi is also committed to sustainability in logistics and internal traffic, which is why all train services operated by DB Cargo that transport finished vehicles from or material to the Neckarsulm site are net carbon-neutral. Low-NOx trucks powered by compressed natural gas (CNG) or electricity are used for shunting operations between the trailer yard and the factory premises.

At the company gas station, vehicles are refueled with the low-carbon alternative R33 BlueDiesel. The charging infrastructure at the site, which is supplied with green power, continues to grow – 600 charging points will be available by 2022, including publicly accessible fast-charging stations in the visitor parking lots.

Water use – a closed cycle

Audi wants to keep its own water consumption as low as possible and, over the long term, stop using drinking water in vehicle production. The company plans to halve its environmentally weighted water consumption per manufactured vehicle from an average of around 3.75 cubic meters today to around 1.75 cubic meters by 2035. Audi will achieve this by using recycled water wherever possible, which will be reused several times in the cycle.

The Neckarsulm site is planning to implement a closed water cycle between the factory and the neighboring wastewater treatment plant operated by AZV Unteres Sulmtal. The feasibility of this plan is being tested in a pilot plant, with the water from the wastewater treatment plant being treated by Audi for production with the aid of filter systems and membranes. Afterwards, the process water then flows back into the treatment plant. In this process, the water quality is constantly monitored; in addition, a laboratory analyzes the water every two weeks. The site will begin with the installation of a new water supply system in 2022, which will close the loop

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between the site and the wastewater treatment plant from 2025 onwards and ensure that it will no longer need to draw water from the Neckar. This closed cycle reduces fresh water consumption by 70 percent.

Resource efficiency – reduce and avoid

Wherever possible, Audi reduces packaging waste at its sites, uses environmentally friendly packaging solutions, and systematically separates recyclable materials so that they can be recycled.

The Mission:Zero “Resource” team in Neckarsulm has declared war on plastic waste and is developing innovative recycling ideas of its own. For example, Audi has plastic film waste first processed into granulate by a manufacturer in the region and then into trash bags that are used at the site. The cycle allows around 15 metric tons of plastic waste to be sensibly reused each year. A positive side effect is that the site is saving a good 40 percent of what it spends on trash bags thanks to this recycling program. Logistics at Audi has worked with suppliers to optimize several component packages. This has already enabled Audi to eliminate almost 31 tons of non-recyclable packaging at the Neckarsulm site alone. These optimizations range from replacing materials with a high environmental impact, such as Styrofoam, to completely eliminating packaging altogether.

An innovative pilot project launched in 2019 will also shred plastic packaging waste from assembly and turn it into 3D printer filament. 3D printers will then be used to create ergonomic assembly aids, such as protective caps or pressing aids, for employees.

New virtual planning methods marry digitization and sustainability. For example, Audi was able to virtually design part of the special containers used to transport sensitive components for the Audi e-tron GT for the first time. This VR application, which was piloted at the Neckarsulm site, is now in use throughout the group and helps to conserve resources previously used for container prototypes. In addition, the all-electric Gran Turismo is the first vehicle from the brand with the four rings to be manufactured entirely without prototypes. This was made possible by three-dimensional building scans, machine learning processes, and the use of virtual reality, among other things. All of the assembly processes were tested entirely virtually for the very first time – and are now being successfully applied during the manufacture of Audi’s production models. This saved physical prototypes and, in the meantime, also business trips, because the virtual methods are now also used across locations and – not only in the era of the coronavirus pandemic – allow employees to work digitally and collaboratively in a virtual space.

Biodiversity – habitats for plants and insects

Audi has been a member of the cross-industry “Biodiversity in Good Company” initiative for six years and is committed to conserving biological diversity at all its locations. This includes natural open spaces as well as green facades or wetland biotopes. The company is also actively involved in nature conservation beyond its own corporate boundaries as part of the “UN Decade of Biodiversity.” The Audi Environmental Foundation, established in 2009, supports numerous

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environmental projects aimed at preserving biodiversity.

Since 2014, several bee colonies have been using the Neckarsulm site to produce honey. More than 35 species of flowers are planted each year on former monotonous grassy areas to provide habitat and food sources for important pollinators and other insects. This year, vocational trainees in bodywork and vehicle construction built 17 insect hotels and set them up at the site. The wooden structures provide shelter for various insect species. The vocational trainees have been looking after their guests' wellbeing ever since.

In the southwest section of the Neckarsulm site, Audi has built a dedicated tower as a nesting site for swallows. In 2019, new nesting boxes for swifts were installed on the conveyor bridge between two buildings. A nesting aid for peregrine falcons has been in place on the chimney of the paint shop since 2003.

For more information on Audi's Mission:Zero environmental program and exciting sustainability projects at other sites operated by the brand with the four rings, please visit the [program page](#) and read the combined [Audi Report 2020](#).

Neckarsulm Communications

Mareike Hieber
Spokesperson Production and Logistics
Neckarsulm site
Phone: +49-152-5771-8308
Email: mareike.hieber@audi.de
www.audi-mediacycenter.com

Neckarsulm Communications

Lisa Först
Spokesperson Production and Logistics
Neckarsulm site
Phone: +49-152-5771-8308
Email: lisa.foerst@audi.de
www.audi-mediacycenter.com



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 19 locations in 12 countries. 100 percent subsidiaries of AUDI AG include Audi Sport GmbH (Neckarsulm, Germany), Automobili Lamborghini S.p.A. (Sant'Agata Bolognese, Italy), and Ducati Motor Holding S.p.A. (Bologna/Italy).

In 2020, the Audi Group delivered to customers about 1.693 million automobiles of the Audi brand, 7,430 sports cars of the Lamborghini brand and 48,042 motorcycles of the Ducati brand. In the 2020 fiscal year, AUDI AG achieved total revenue of €50.0 billion and an operating profit before special items of €2.7 billion. At present, 87,000 people work for the company all over the world, 60,000 of them in Germany. With new models, innovative mobility offerings and other attractive services, Audi is becoming a provider of sustainable, individual premium mobility.



Fuel consumption of the models named above

Information on fuel/electricity consumption and CO₂ emissions in ranges depending on the tires and alloy wheel rims used and on the equipment and accessories of the car.

Audi e-tron GT

Combined electric power consumption in kWh/100 km (62.1 mi): 21.8–19.9 (WLTP);
19.6–18.8 (NEDC); combined CO₂ emissions in g/km (g/mi): 0 (0)

The indicated consumption and emissions values were determined according to the legally specified measuring methods. Since September 1, 2017, type approval for certain new vehicles has been performed in accordance with the Worldwide Harmonized Light Vehicles Test Procedure (WLTP), a more realistic test procedure for measuring fuel consumption and CO₂ emissions. Since September 1, 2018, the WLTP has gradually replaced the New European Driving Cycle (NEDC). Due to the realistic test conditions, the fuel consumption and CO₂ emission values measured are in many cases higher than the values measured according to the NEDC. Vehicle taxation could change accordingly as of September 1, 2018. Additional information about the differences between WLTP and NEDC is available at www.audi.de/wltp.

At the moment, it is still mandatory to communicate the NEDC values. In the case of new vehicles for which type approval was performed using WLTP, the NEDC values are derived from the WLTP values. WLTP values can be provided voluntarily until their use becomes mandatory. If NEDC values are indicated as a range, they do not refer to one, specific vehicle and are not an integral element of the offer. They are provided only for the purpose of comparison between the various vehicle types. Additional equipment and accessories (attachment parts, tire size, etc.) can change relevant vehicle parameters, such as weight, rolling resistance and aerodynamics and, like weather and traffic conditions as well as individual driving style, influence a vehicle's electrical consumption, CO₂ emissions and performance figures.

Further information on official fuel consumption figures and the official specific CO₂ emissions of new passenger cars can be found in the "Guide on the fuel economy, CO₂ 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).