Audi Q8 e-tron
Advanced 55 e-tron quattro*
The life cycle assessment

Image shows vehicle from the production year 2022 with optional equipment

* Audi Q8 55 e-tron quattro advanced: combined electric power consumption in kWh/100 km: **24.4 - 20.6 (WLTP)**; combined CO_2-emissions in g/km: **0 (WLTP).** Consumption and emission values are only available according to WLTP and not according to NEDC for these vehicles.

Life cycle assessment
Audi Q8 55 e-tron quattro*

AUDI AG prepares a detailed life cycle assessment for new vehicle models at the start of production.
In the following, the Audi Q8 55 e-tron quattro* with the German standard equipment without additional optional equipment is considered.

The methodology

The life cycle assessment (LCA) analyzes the environmental impact of a product throughout its life cycle (cradle-to-grave, see Figure 1). In a life cycle assessment for an AUDI AG vehicle, this is broken down into the following phases:

• **Production:**
Manufacture of the components (from the raw material to the finished component) and production of the vehicle model.

• **Usage:**
Use of a vehicle model based on a predefined driving profile (WLTP) with a mileage of 200,000 km including upstream processes from the fuel or energy supply.

• **Recycling** at the end of the product life.

Within the life cycle assessment on hand, only the ecological impact category of greenhouse gas potential is quantitatively assessed. Further explanations can be found below.

When preparing the life cycle assessment, AUDI AG follows the procedure standardized in the international series of standards ISO 14040 ff.

The following premises were used as a basis for preparing the life cycle assessment:

- Production year 2023, model year 2024
- Material data and component parts list of the examined vehicle model
- Combined energy consumption according to WLTP in 2022
- 200,000 km mileage in the use phase
- Testing and validation by independent experts (TÜV NORD CERT GmbH)

The life cycle assessment software GaBi version 10.5.0.78 was used.

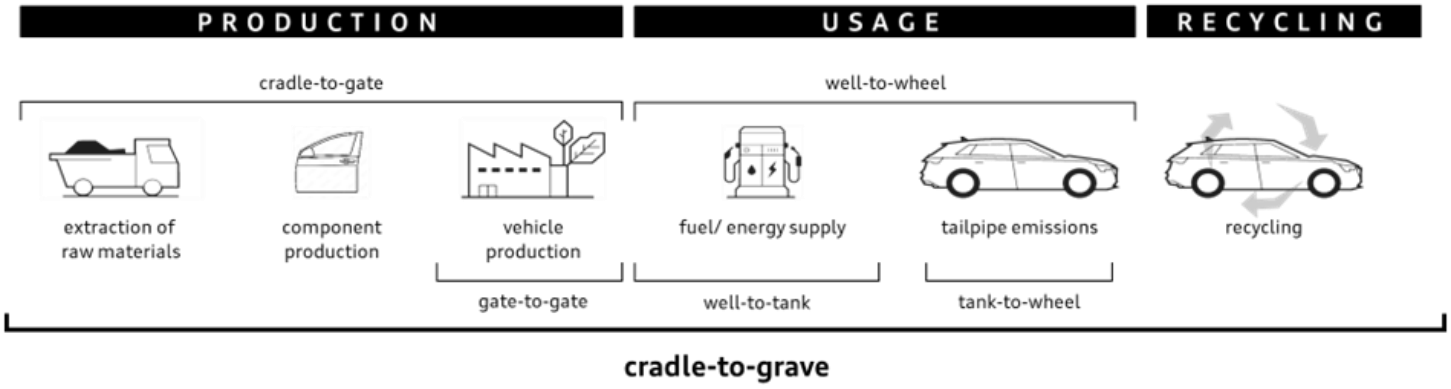

Figure 1: Scope of investigation of a life cycle assessment

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Life cycle assessment
Audi Q8 55 e-tron quattro*

The results - global warming potential over the entire life cycle

The global warming potential (GWP) describes the emissions of greenhouse gases that lead to an increase in the heat absorption of solar radiation in the atmosphere and thus can contribute to an increase in the global average temperature. The reference substance for the global warming potential is carbon dioxide (CO_2), to which all other active substances (e.g. methane (CH_4), nitrous oxide (N_2O), sulfur hexafluoride (SF_6), volatile organic compounds (VOC)) are related (CO_2 equivalents - CO_2-eq.).

The Audi Q8 55 e-tron quattro* causes approx. 40.2 t CO_2-eq. greenhouse gas emissions over its entire life cycle using the EU electricity mix (see figure 2). When using electricity from wind power, the greenhouse gas emissions are 26.2 t CO_2-eq. In the production phase, the greenhouse gas emissions of the Audi Q8 55 e-tron quattro* are around 23.1 t CO_2-eq. and 1.4 t CO_2-eq. are generated in logistics. The use phase of the Audi Q8 55 e-tron quattro* accounts for approx. 15.1 t CO_2-eq. in the electricity supply with EU electricity mix or 1.1 t CO_2-eq. with green electricity, which corresponds to almost 38 % or almost 4 % of the total greenhouse gas emissions over the life cycle. There are no tailpipe emissions. The maintenance generates 0.6 t CO_2-eq. 0.03 t of CO_2-eq. are generated during recycling.

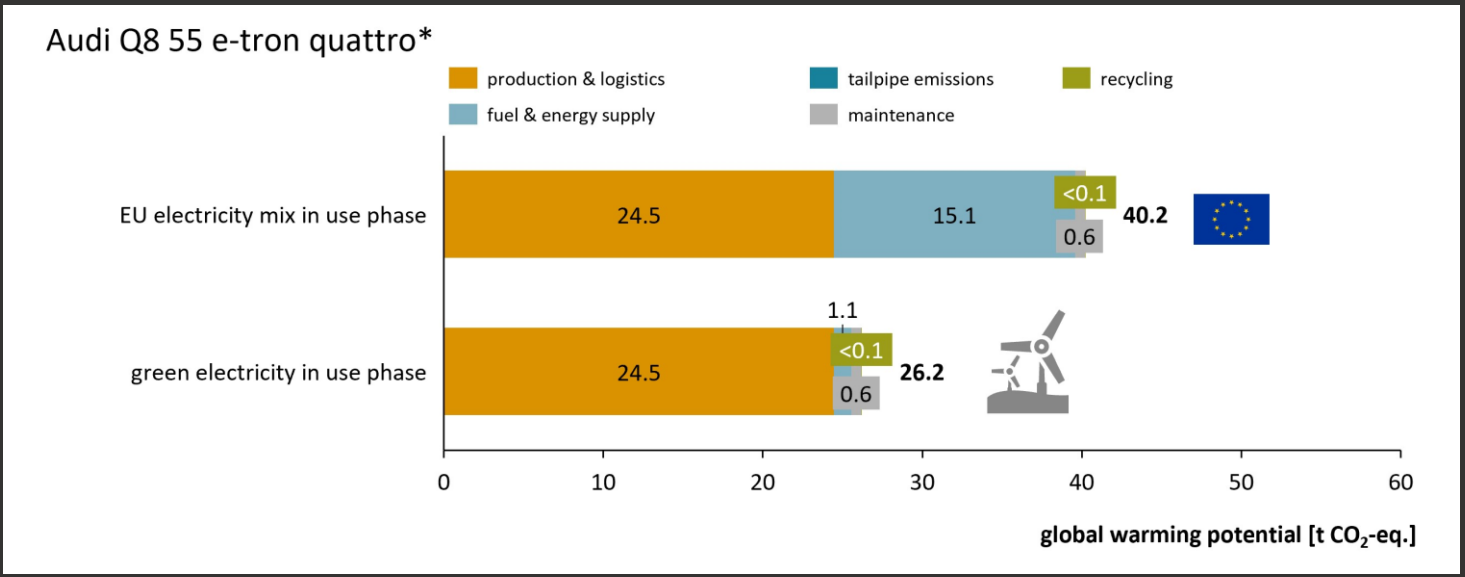

Figure 2: Global warming potential of the Audi Q8 55 e-tron quattro* over the entire life cycle

Conclusion

AUDI AG is aware of its responsibility towards the environment by putting vehicles on the market and is committed to the Paris Agreement on climate change. As part of this, AUDI AG is pursuing a consistent decarbonization strategy. The data basis for this is formed, among other things, by the life cycle assessments of the various vehicle models from Audi AG.

The life cycle assessment of the Audi Q8 55 e-tron quattro* was checked by the external expert TÜV NORD CERT GmbH. Evidence of the rule-compliant application of DIN EN ISO 14040 was provided and a declaration of validity was issued. Further information on sustainability at Audi AG can be found at Consistent and holistic: sustainabilityat Audi | audi.com.

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TÜVNORD

CERTIFICATE OF VALIDITY

DIN EN ISO 14040:2021 / DIN EN ISO 14044:2021
(product-related life cycle assessment - LCA)

Evidence that the application conforms to the regulations was delivered, and is herewith certified according to the TÜV NORD CERT Prüf- und Umweltgutachtergesellschaft mbH - procedure for

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Range of application

Life Cycle Assessment „Q8 e-tron 300 kW/114kWh - version dated 2023-07-10“

The requirements of the above-mentioned standards were evidently fulfilled by a critical review with regard to

- the scientifically justified and technically valid methods used in carrying out the LCA;
- the appropriateness of the data used in relation to the objective of the study;
- the consideration of the objective of the LCA and the identified limitations in the interpretations.

The LCA report (Ref: 35344144) is transparent and self-consistent.

This declaration of validity refers exclusively to the functional unit at point in time of the LCA report.

Report No. 3534 4144

TÜV NORD CERT Prüf- und Umweltgutachtergesellschaft mbH Hannover, 2023-07-10

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