

VEHICLE FOOTPRINT.

Carbon footprint report of the iX3 50 xDrive with a validation by TÜV Rheinland and further information on its environmental and social impact. Data for a selected vehicle at the time of start of production in July 2025. Images in this report are for illustrative purposes.



**BMW
GROUP**



BMW EFFICIENTDYNAMICS – OUR AMBITION OVER THE ENTIRE LIFECYCLE.

But how can I find out the environmental footprint of a vehicle? The BMW Vehicle Footprint is the answer. Four key sustainability criteria and an extensive German Technical Inspection Agency-verified carbon footprint report can provide you with a comprehensive picture. Clearly and transparently. Helping you to make an informed decision.



Climate impact.
Because we look at things in detail – emissions throughout the entire life-cycle.

Every vehicle leaves behind a CO₂e footprint throughout its life-cycle. This life-cycle includes the procurement, production, use and recycling or disposal of raw materials and other materials. CO₂e equivalents (CO₂e) are a unit of measurement to standardise the climate impact of different greenhouse gases, such as methane. Emissions generated along the supply chain, by transport logistics and upstream energy provision, are reported as CO₂e. Electricity produced from regenerative in-house generation systems, direct supply contracts and certified proof of origin are all taken into account when reporting electricity from renewable energy sources.



Efficiency.
Because less is more – measures with regard to consumption and range.

BMW EfficientDynamics has been synonymous with innovative consumption and range improvement solutions for generations of vehicles. Key factors affecting greater driving pleasure coupled with lower fuel consumption and longer range include lightweight construction, aerodynamics, vehicle electrical system optimization and, decisively, drive efficiency. The design of the high-voltage battery in cell-to-pack format and the increased energy density of the cells contribute to overall vehicle efficiency as well as to resource efficiency. But you, the driver, as ever, are also a crucial influencing factor. You can save energy through an efficient driving style, depending on the route and traffic situation.



Circularity.
Because recycling is important – conserving resources through the use of recycled materials.

RE:THINK, RE:DUCE, RE:USE, RE:CYCLE. We adhere to these principles of circularity in order to conserve natural resources and retain high-quality materials in circulation over the long term. We therefore use secondary materials in new components. In addition, we are also increasing the recyclability of materials in a number of new components through the design process and in product development.



Supply chain.
Because it matters to us – environmental and social requirements in the supply chain.

Social responsibility within the company and along the supply chain plays a key role for the BMW Group. For years, we have aspired to respect human rights and applicable environmental standards along the global supply chain of our vehicles. To achieve this, we rely on collaboration. In doing so, we employ on a catalogue of measures and the dovetailing of training courses, contractual agreements, certification and testing by means of questionnaires and audits. We determine specific need for action through regular risk analysis, enabling us to identify raw materials whose procurement and processing involve increased risks on people and the environment.

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1. PRODUCT INFORMATION ON THE VEHICLE IN THE CARBON FOOTPRINT REPORT.

Technical details of the vehicle in the carbon footprint report

BMW iX3 50 xDrive

Powertrain type	Electric
Transmission	1-speed, automatic
Drive type	All-wheel drive
Power in kW (hp)	345 (470)
Maximum speed in km/h	210
Battery capacity (gross) in kWh	108.4
Vehicle weight in kg	2,291
Energy consumption, combined WLTP in kWh/100 km (mils/kWh) ¹	15.7 (4.0)
CO ₂ -Emissions, combined WLTP in g/km	0

¹The stated fuel consumption and CO₂ figures were determined according to the prescribed measuring procedure of the WLTP (Worldwide harmonised Light vehicles Test Procedure) cycle in accordance with Regulation (EC) No. 715/2007 and Regulation (EU) 2017/1151. The specifications always refer to a vehicle with basic equipment. Any added optional equipment that is supplied by the manufacturer to replace parts of the basic equipment may increase these values and therefore differ depending on the model and motorisation. In addition, retrofitted optional equipment and accessories can change relevant vehicle parameters such as weight, rolling resistance and aerodynamics, resulting in deviating consumption values and CO₂ emissions. Values other than the values stated here may therefore apply for the assessment of taxes and other vehicle-related duties (also) based on CO₂ emissions. The figures therefore do not refer to the specific vehicle, and do not form an integral part of the offer, but are provided solely for comparison purposes between the different types of vehicle. Further information on the WLTP measurement procedure can be found at: <https://www.bmw.com/en/innovation/wltp.html>.

A battery electric vehicle requires mains electricity for charging. Whilst we recommend the battery for this vehicle is charged to 80 % to help optimise the health and life of your battery, the electric range figure shown is the WLTP figure after the battery had been fully charged to 100 %. WLTP figures are shown for comparability purposes. Only compare fuel consumption, CO₂ and electric range figures with other cars tested to the same technical procedures. These figures may not reflect real life driving results, which will depend upon a number of factors including the starting charge of the battery, accessories fitted (post registration), variations in weather, driving styles and vehicle load.



2. CARBON FOOTPRINT.

Think long term and act with the customer in mind. These are the fundamental objectives of the BMW Group and firmly anchored in our corporate strategy. Part of our product responsibility includes: evaluating the environmental, economic and social impact of the BMW Group. With the help of a Carbon footprint, we can look at the entire life cycle of a vehicle and its components.

What is a Carbon Footprint?

A Carbon Footprint means looking at the three elements of the car:

- production of the vehicle
- the use phase, or driving phase
- the end of life, how the car can be recycled

This transparency means that in the development phase of a vehicle for example, potential measures to reduce the environmental impact can be identified and incorporated into product development decisions at an early stage.

What Criteria are we using?

The comparable presentation of results and process applications is particular challenging for complex products such as vehicles. For the use phase we are using the WLTP (Worldwide harmonised Light Vehicle Test Procedure) which gives a representation of fuel consumption, energy consumption and CO₂ figures for comparison purposes. WLTP

consumption values are used over a total nominal distance covered of 200,000 km (approx. 125,000 mls).

Then, using LCA for experts 10 Software Programme and Database (data of 2025) from Sphera, specific supplier records are added to quantify the environmental impact of the supply chain and vehicle production. Specific supplier records include the proportion of secondary raw materials and the use of renewable energies as at the start of production of the new vehicle generation. It's an industry standard system, and unless otherwise specified, all emission factors used are taken from the software.

Who verifies this data?

External experts, TÜV Rheinland Energy & Environment GmbH, have verified compliance with the ISO 14067 standard.

The global warming potential (GWP) characterization factors of the Intergovernmental Panel on Climate Change (IPPC AR6 2025.1) are used for the Carbon Footprint of the BMW iX3 50 xDrive. It's aim is to show which greenhouse gas emissions the product system emits over the entire life cycle.



VALIDATION OF THE CARBON FOOTPRINT.



Declaration of Validity

TÜV Rheinland Energy & Environment GmbH confirms that a critical review of the submitted study by BMW AG, Petuelring 130, 80788 München, regarding the carbon footprint for the passenger car

BMW iX3 50 xDrive – model year 2025

has been performed.

Evidence has been provided that the requirements of the international standards

- ISO 14067:2018: Greenhouse gases – Carbon footprint of products – Requirements and guidelines for quantification, based on:
 - ISO 14040:2006 + A1:2020: Environmental management – Life cycle assessment – Principles and framework
 - ISO 14044:2006 + A1:2019 + A2:2020: Environmental management – Life cycle assessment – Requirements and guidelines
- ISO/TS 14071:2014: Environmental management – Life cycle assessment – Critical review processes and reviewer competencies: Additional requirements and guidelines to ISO 14044

have been fulfilled.

Review results:

- The carbon footprint study was prepared in compliance with the ISO 14067:2018 standard. The methods used and the modelling of the product system conform to the state of the art. They are suitable for achieving the goal defined in the study. The report is comprehensive and transparently describes the scope of the study.
- The assumptions made in the report, particularly regarding energy consumption during the use phase, have been discussed and are plausible.
- The examined data samples and environmental information contained in the report correspond to the evidence provided.

Review process and level of detail:

As part of the review, a sample-based verification of input data and environmental information as well as an examination of the study preparation process was conducted. The following aspects were considered:

- Applied methods and product model,
- Technical documents (e.g. type approval documents, parts lists, supplier information including details on secondary material content, measurement results, etc.) and
- Selected input data (e.g. weights, materials, secondary material content, energy consumption, emissions, etc.).

Cologne, July 7th, 2025

Norbert Heidelmann
Department Manager Carbon Services

Tim Lazik
Sustainability Expert

Responsibilities: Sole liability for the content of the carbon footprint report rests with BMW AG. The role of TÜV Rheinland Energy & Environment GmbH was to assess the accuracy and credibility of the information contained therein and to confirm compliance with the normative requirements.

2. CARBON FOOTPRINT.

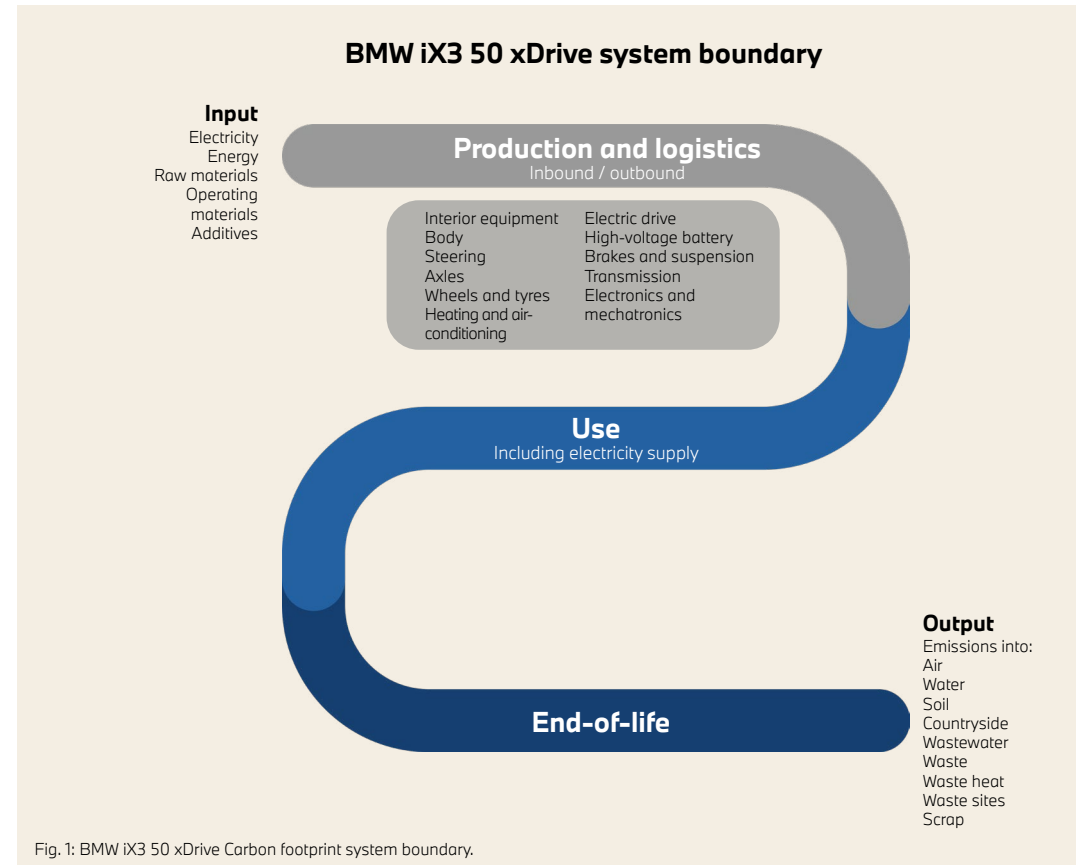
The system boundary of the Carbon Footprint is shown in Figure 1 and ranges from the extraction of raw materials to the production of materials and components, logistics and the use phase to recycling at the end of the vehicle's service life.

Production residues from manufacturing processes are also taken into account. This includes, for example, stamping residues from the production of steel and aluminium components.

The impact of the manufacture of tools and the construction of production facilities are not included in this Carbon footprint.

For the use phase, publicly available data records for European electricity mixes at the start of production of the new model generation are used for the electricity supply. The scope of the study does not include the maintenance, high-voltage battery replacement or any service of the vehicles.

The recoverability (end-of-life) is mapped as part of the Carbon footprint using the standard processes of drainage and disassembly in accordance with the End-of-Life vehicles directive (2000/53/EC), as well as the separation of metal in the shredding process and the energy recovery of non-metallic components (shredder light fraction). No eco-credits are issued for secondary raw materials produced and energy recovery. Only the efforts and emissions of the recycling processes are taken into account. The dismantling of the component was set as the system boundary for the recycling of the high-voltage battery and no further credit was issued.



2.1. MATERIALS AND SECONDARY MATERIAL USED IN THE VEHICLE.

Product-related data, such as component and material specifications, piece quantities, manufacturing and logistics efforts, etc., is primary data collected by the BMW Group.

For the Carbon footprint, the weight is taken as the „mass in a drive-ready state without a driver or luggage plus artificial leather upholstery“. This weight is mapped through a derivation of the vehicle's components and their material composition from a vehicle-specific parts list.

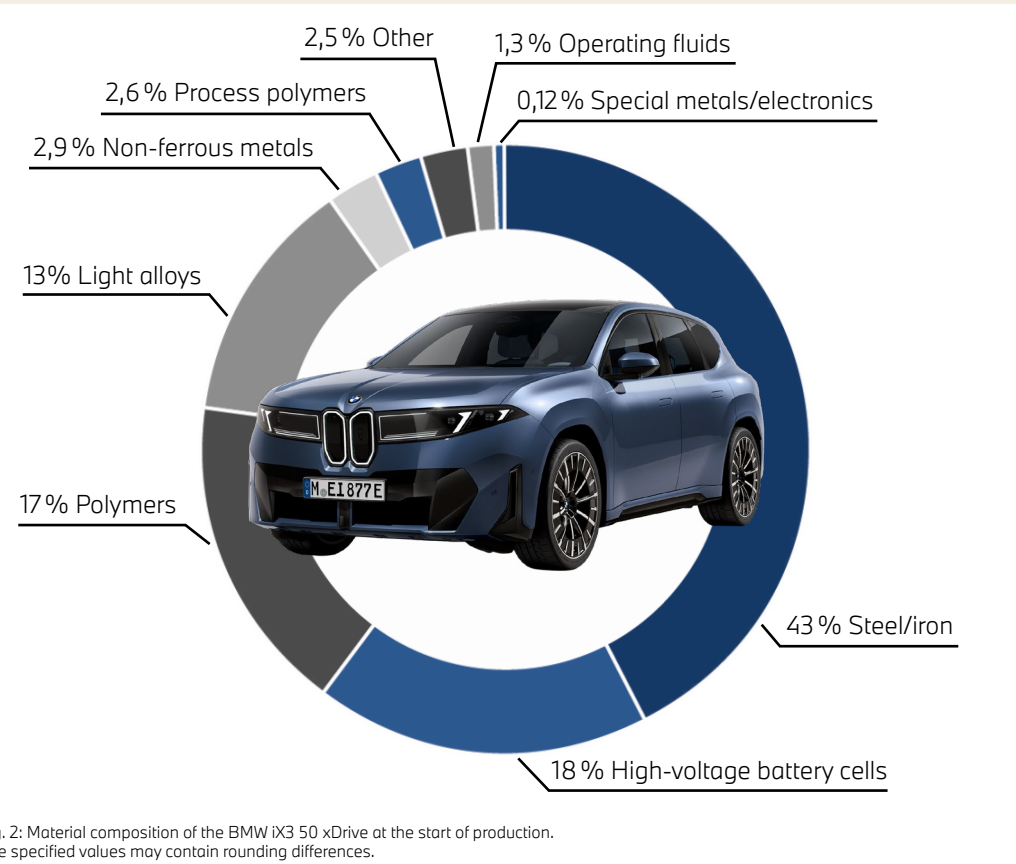
Figure 2 shows the material composition of the BMW iX3 50xDrive.

The way we handle resources plays a key role for the BMW Group. In this process, we wish to continue using raw materials in line with the principles of the circular economy.

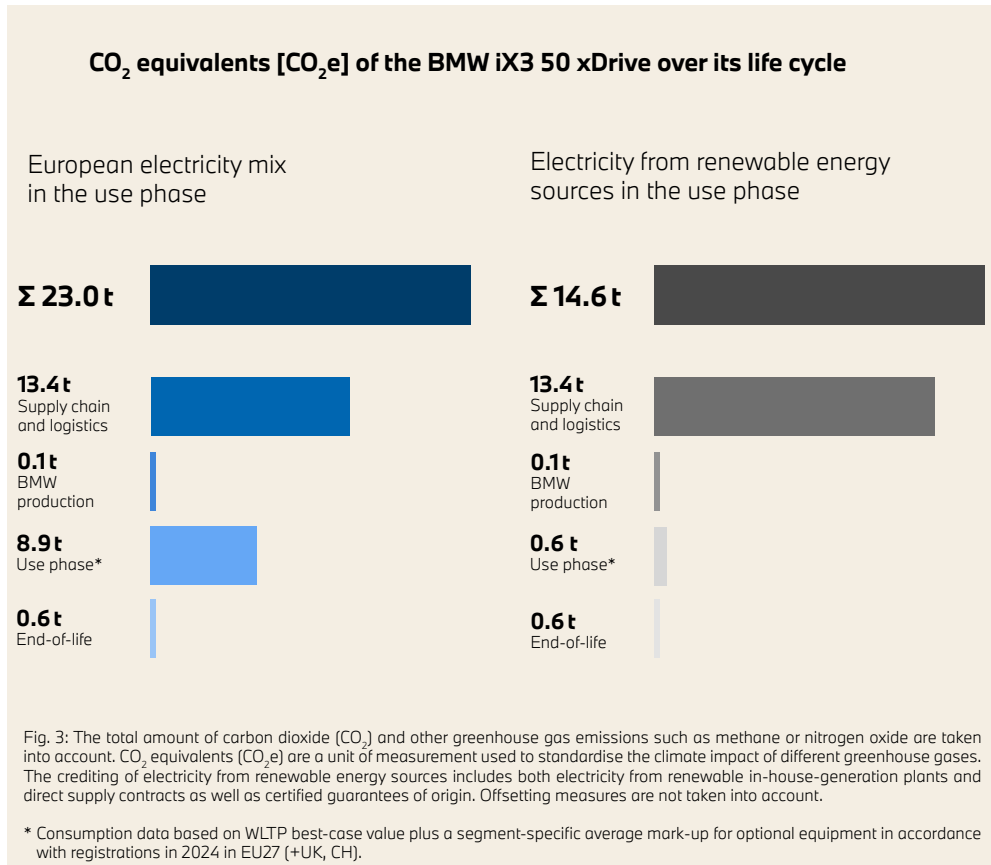
The high-voltage battery cells of the new BMW iX3 50 xDrive, for example, consist of approx. 20% secondary raw material. Nickel, cobalt and lithium each consist of approx. 50% secondary material. The alloy wheels are made of approx. 70% secondary aluminium. The material for the engine cover and the storage compartment under the bonnet consist of approximately 30% recycled maritime plastics (post-consumer material).

Based on the overall vehicle the BMW iX3 50 xDrive has a calculated secondary raw material content of approx. 33%.

These values have been calculated for the selected vehicle at the start of production of the new vehicle generation in 2025 based on specific supplier records as well as on average industry values and also include reutilised production residues.



2.2. CO₂ EQUIVALENTS OVER THE LIFE CYCLE.



This Carbon footprint considers the CO₂ equivalents of a product over its entire life cycle. In order to assess the climate impact, greenhouse gas emissions associated with the raw material supply chain, transport logistics and production, the use and recycling or disposal of the product are included. The Global Warming Potential (GWP) evaluation is currently the main focus in the automotive sector.

Figure 3 shows the CO₂ equivalents of the BMW iX3 50 xDrive over its life cycle and the impact of using 100% renewable energy in the usage phase.

The BMW iX3 50 xDrive tested for this Carbon footprint is handed over to customers with 13.5t CO₂e. Inbound and outbound logistics account for 0.5t of this. Inbound logistics includes all transportation of goods from suppliers to the production sites and intra-plant transport. The outbound transport logistics from the factory to the global markets is determined on the basis of forecasted volume plans.

The use phase for the BMW iX3 50 xDrive is based on WLTP consumption and a total distance covered of 200,000 km (approx. 125,000 mls).

How the electricity used is generated significantly influences the climate impact of the vehicle. Based on the generated European electricity (local or regional electricity mixes might differ), this amounts to 8.9t of CO₂e. When the customer charges the vehicle with electricity from renewable sources, electricity generation contributes only 0.6t to the total life cycle emissions. Due to the inclusion of CO₂e emissions for the production of the energy-generating plants, this value is not equal to zero.

2.3. CO₂ EQUIVALENTS COMPARED FOR DIFFERENT POWERTRAINS.

The production of the BMW iX3 50 xDrive causes 13.5t of CO₂e. That is more than the BMW X3 20 xDrive with a combustion engine causes during production. The main reason is the energyintensive production processes of the high-voltage battery.

However, besides production, consumption in the use phase of both vehicles is key to their environmental impact. With a mileage of 200,000 km (approx. 125,000 mls), charged with european electricity mix in the use phase, the total emissions of the BMW iX3 50 xDrive are 23.0t of CO₂e: significantly lower than the 52.8t of CO₂e, emitted by the BMW X3 20 xDrive.

Charging with electricity from renewable energy sources can reduce CO₂e in the usage phase of the electric vehicle from 8.9t to 0.6t.

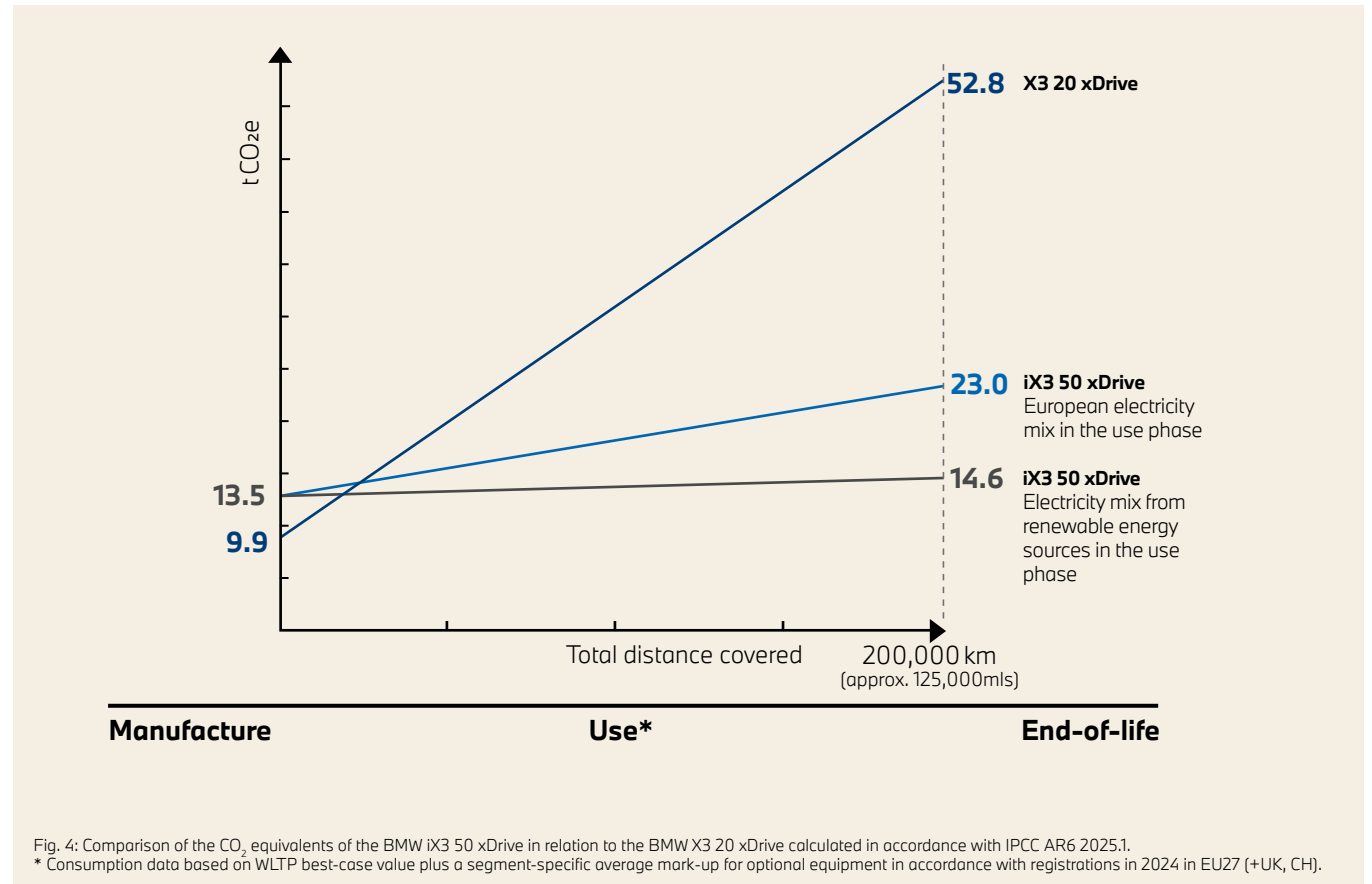
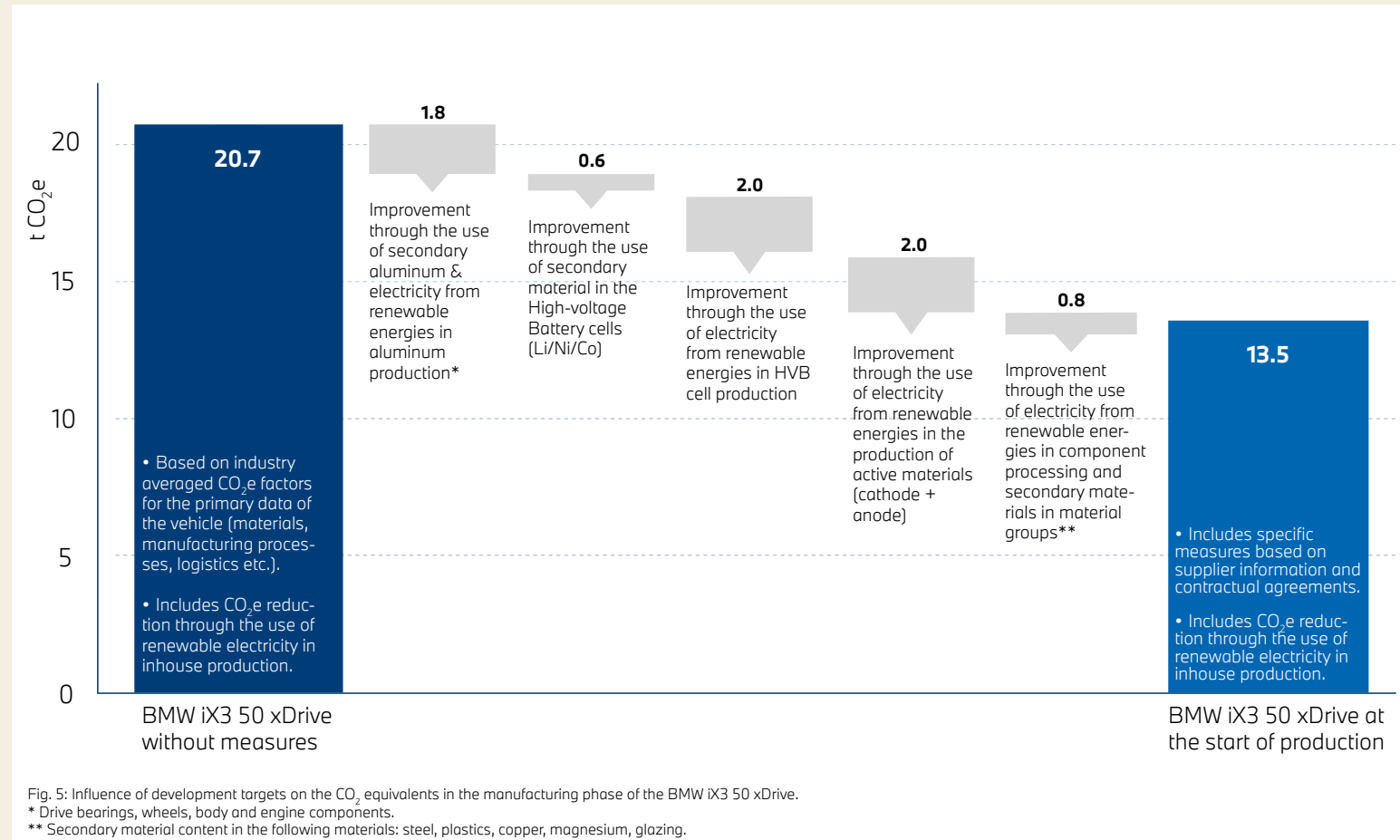


Fig. 4: Comparison of the CO₂ equivalents of the BMW iX3 50 xDrive in relation to the BMW X3 20 xDrive calculated in accordance with IPCC AR6 2025.1.

* Consumption data based on WLTP best-case value plus a segment-specific average mark-up for optional equipment in accordance with registrations in 2024 in EU27 (+UK, CH).

2.4. MEASURES FOR REDUCING CO₂ EQUIVALENTS.



In order to achieve internal sustainability targets, various measures were implemented during the production phase of the BMW iX3 50 xDrive.

Figure 5 shows the measures that contribute to reducing CO₂ equivalents in the manufacturing phase by around 35% compared to the industry averages according to LCA for Experts 10 Software and Database (data of 2025). The use of renewable energy sources in in-house production was not reported separately as a measure and is already included in the 20.7t of CO₂e.

The inclusion of the measures result in a CO₂e value of 13.5t when the vehicle is handed over to the customer.

The specified values may contain rounding differences.

3. FOCUS HIGH-VOLTAGE BATTERY.

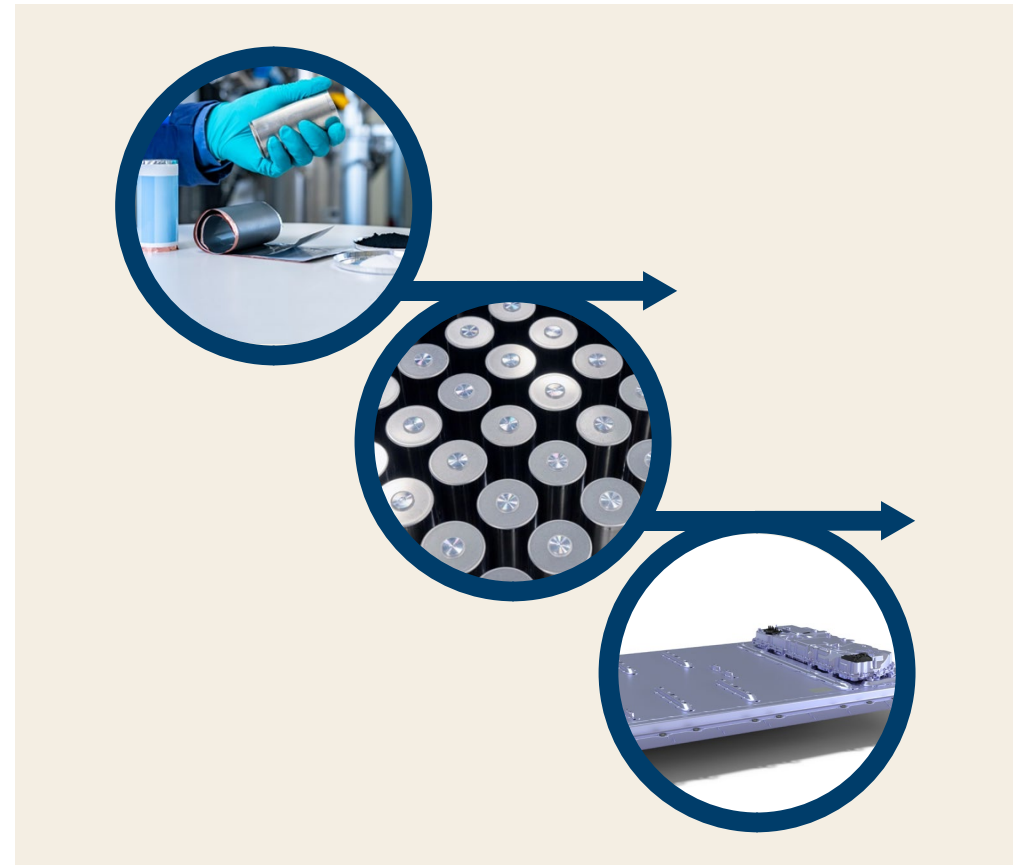
The high-voltage battery is the heaviest and most valuable component in an electrified BMW. With the 6th generation of BMW eDrive technology, introduced in 2025, cylindrical battery cells with further improved functional properties compared to fifth-generation prismatic cells are being used in high-voltage batteries. Due to the high energy density of Gen6 battery cells, fewer raw materials are required for production than for a comparable battery cell.

BMW is implementing numerous measures with its suppliers to reduce the CO₂e footprint of high voltage battery cells. For example, renewable energy is used in cell production and in the production of active materials for the anode and cathode, and high levels of recycled material are used for the cathode's active material.

The round high-voltage battery cells for the BMW iX3 50 xDrive in Europe will be installed at new production sites in Irlbach-Strasskirchen (southern Bavaria) and Debrecen (Hungary) using the "local for local" principle. Short distances also reduce the CO₂e footprint in production.

High-voltage batteries in BMW electric vehicles are designed for a long service life and all everyday situations. However, the range and charging performance decrease slightly over time in accordance with a normal aging process. The State of Health (SoH) expresses this. It represents the maximum energy content of a used high-voltage battery system compared to a new one. With lower SoH, the range decreases. Battery service life can be maintained in the best possible way through following BMW guidance for charging and driving.

For us at the BMW Group, "Design for Circularity" means that the foundation for product design based on circular economy principles of every new vehicle is laid as early as the development and production of every new vehicle. This also includes disused high-voltage batteries in electric vehicles. In addition to a secondary use as a stationary energy storage system to stabilize the public power grid, the BMW Group is also working with various partners to recycle and establish closed recyclable material cycles for battery cells.



4. PRODUCTION AND WATER DEMAND.

For the BMW iX3 50 xDrive, the relevant production sites are Debrecen in Hungary and Landshut. The assembly of the entire vehicle as well as the assembly of the electric drive components takes place at the Debrecen site. The high-voltage battery housing is also produced there and the high-voltage battery and the HEAT (unit comprising power electronics, electric transmission and electric motor) are installed in the vehicle. Individual add-on parts of the body are delivered from the Landshut plant.

Both sites obtain their entire external electricity requirements from renewable energy sources, for example using guarantees of origin. The BMW Group only purchases certificates of renewable energy for which the production is not subsidised. This excludes the possibility of double counting. In addition, electricity is also generated from renewable energy sources on the factory premises.

Many production processes, such as painting the vehicles, require a lot of water. The average potable water consumption in 2024 across all global production sites was 1.67 m³* per new vehicle.

*Source: <https://www.bmwgroup.com/en/report/2024/index.html>
The specifications regarding water demand do not form part of the Carbon footprint.



5. RECYCLING OPTIONS AT THE END OF THE LIFE CYCLE.



BMW considers the impact on the environment over the entire life cycle of a new vehicle. From production to use and recycling. Efficient recycling is planned as early as in the development and production stages.

It goes without saying that BMW automobiles worldwide meet the legal requirements for the recycling of end-of-life vehicles, components and materials. In relation to the entire vehicle, a reuse and recycling of at least 85%* as stipulated by legal requirements (End-of-Life vehicle Directive 2000/53/EC), and a reuse and recovery of at least 95%* is achieved.

End-of-life vehicles are recycled in recognised disassembly facilities. The BMW Group and its national sales companies have established a network recycling at more than 2,800 collection points in 30 countries worldwide. The four stages of recycling include controlled return, pre-treatment, disassembly and recycling of the remaining vehicle.

The statements and specifications on this page do not form part of the Carbon footprint.

* The percentages relate to the legal minimum requirements. In practice, higher recycling/recovery rates are also possible due to differences between vehicle versions and/or recycling/recovery processes.

6. RESPONSIBILITY IN THE SUPPLY CHAIN.



In Purchasing and Supplier Network at the BMW Group, upholding environmental and social standards is a fundamental principle. This includes a particular focus on human rights and, associated with that, compliance with our own ethical principles. The responsible sourcing of raw materials is a key point in this regard.

We source components, materials and other services from a large number of production and delivery locations. The associated social and environmental due diligence obligations are stipulated as minimum requirements for suppliers in the BMW Group Supplier Code of Conduct.

A comprehensive overview of our other activities to comply with environmental and social standards in Purchasing and Supplier Network can be found on our website at <https://www.bmwgroup.com/en/sustainability/supply-chain.html>.

The statements and specifications on this page do not form part of the Carbon Footprint.

7. EVALUATION AND CONCLUSION.

The all-electric BMW iX3 50 xDrive is the first model of a new generation of vehicles and represents a developmental lead in technology and design.

The independent TÜV Rheinland Energy & Environment GmbH validated a Carbon footprint of the BMW iX3 50 xDrive showing the measures taken to reduce its environmental impact.

