

VEHICLE FOOTPRINT.

Carbon Footprint of the BMW X5 with a validation by TÜV Rheinland and further information on its environmental and social impact. Data for the selected reference vehicle BMW X5 40d xDrive as of the start of production in August 2026. Images in this report are for illustrative purposes.



BMW
GROUP



BMW EFFICIENTDYNAMICS – OUR AMBITION OVER THE ENTIRE LIFE CYCLE.

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 Product Carbon Footprint 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.



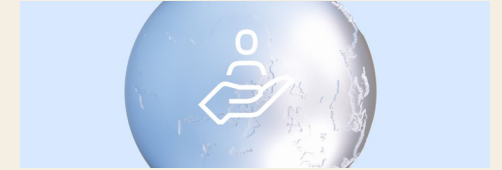
Efficiency. **Because less is more – measures with regard to consumption and range.**

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. 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 needs for action through regular risk analysis, enabling us to identify raw materials whose procurement and processing involve increased risks to people and the environment.

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1. PRODUCT INFORMATION ON THE REFERENCE VEHICLE.

Technical details of the reference vehicle	BMW X5 40d xDrive
Powertrain type	Diesel – 48 Volt Mild-Hybrid
Transmission	8 speed, automatic
Drive type	All-wheel drive
Power in kW (hp)	230 (313)
Maximum speed in km/h	230
Vehicle weight in kg	2,316
Fuel consumption, combined WLTP in l/100 km (mpg) ¹	7.3 (38.6)
CO ₂ -Emissions, combined WLTP in g/km	193

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>.
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. PRODUCT 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 Product Carbon Footprint, we can look at the entire life cycle of a vehicle and its components.

What is a Product Carbon Footprint?

A Product 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 particularly 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 Datasets from Sphera's MLC Database, 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 spec-

ified, 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 (IPCC AR6) are used for the Carbon Footprint of the BMW X5 40d xDrive. Its aim is to show which green-

house gas emissions the product system emits over the entire life cycle.

The Vehicle Footprint is individually determined for each model variant. Based on a fully accounted-for and externally verified reference model, the variant-specific parameters are recalculated and substituted, and the use phase is modelled using vehicle-specific WLTP consumption figures. The methodology in accordance with DIN EN ISO 14067 has been verified by TÜV Rheinland.



VALIDATION OF THE PRODUCT CARBON FOOTPRINT.



Statement 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 reference passenger car

BMW iX5 60 xDrive – model year 2026

has been conducted. The review also covers the following resulting carbon footprint of a model variant, which was derived from the reference model using a defined adaptation approach.

BMW X5 40d xDrive – model year 2026

Evidence has been provided that the requirements of the following international standards have been fulfilled:

- 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 + A1:2018 + 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

Review results:

- The carbon footprint study was prepared in compliance with ISO 14067:2018. The methods used and the modelling of the product system are consistent with the current state of the art. They are appropriate 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 data samples examined and the 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, etc.).

Cologne, August 13, 2026

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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. PRODUCT CARBON FOOTPRINT.

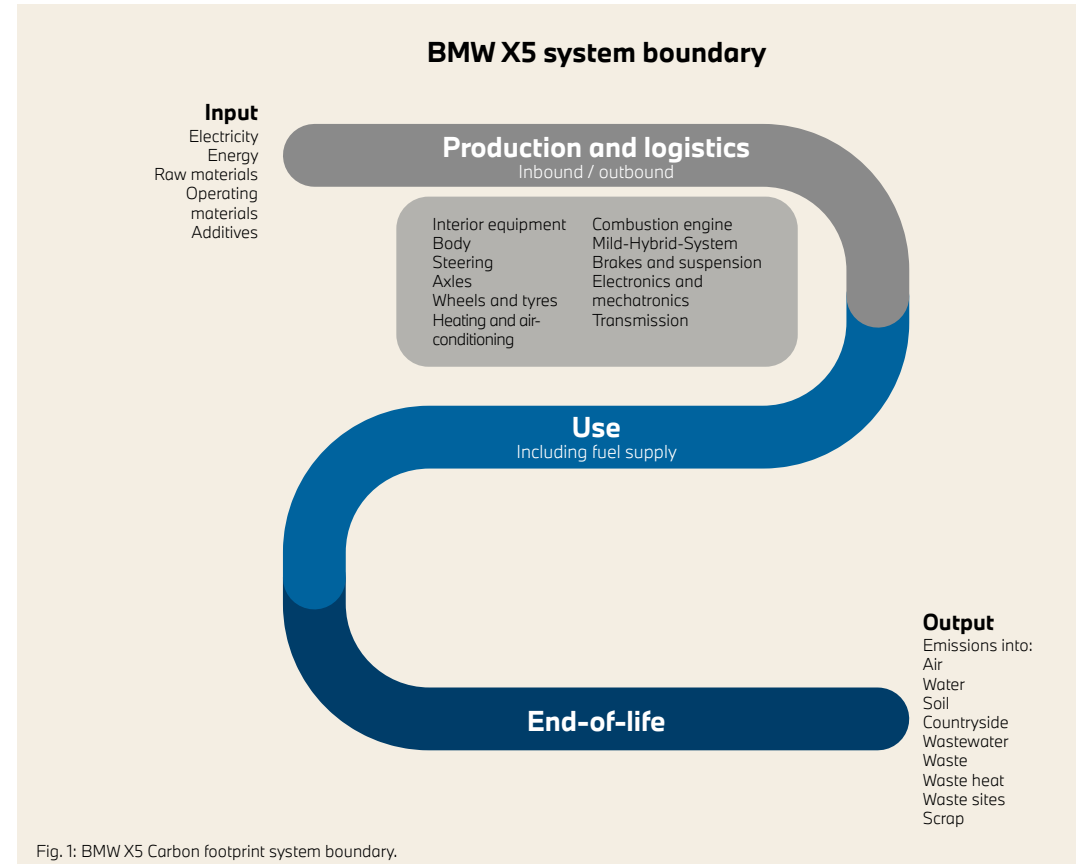
The system boundary of the Product Carbon Footprint is shown in Figure 1 and ranges from the extraction of raw materials to the production of materials and components, logistics and the use phase to recycling at the end of the vehicle's service life.

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 Product Carbon Footprint.

For the use phase, publicly available data records for european fuel mixes at the start of production of the new model generation are used for the fuel 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 Product 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 Product Carbon Footprint, the weight is taken as the “mass in a drive-ready state without a driver or luggage”. This weight is mapped through a derivation of the vehicle's components and their material composition from a vehicle-specific parts list.

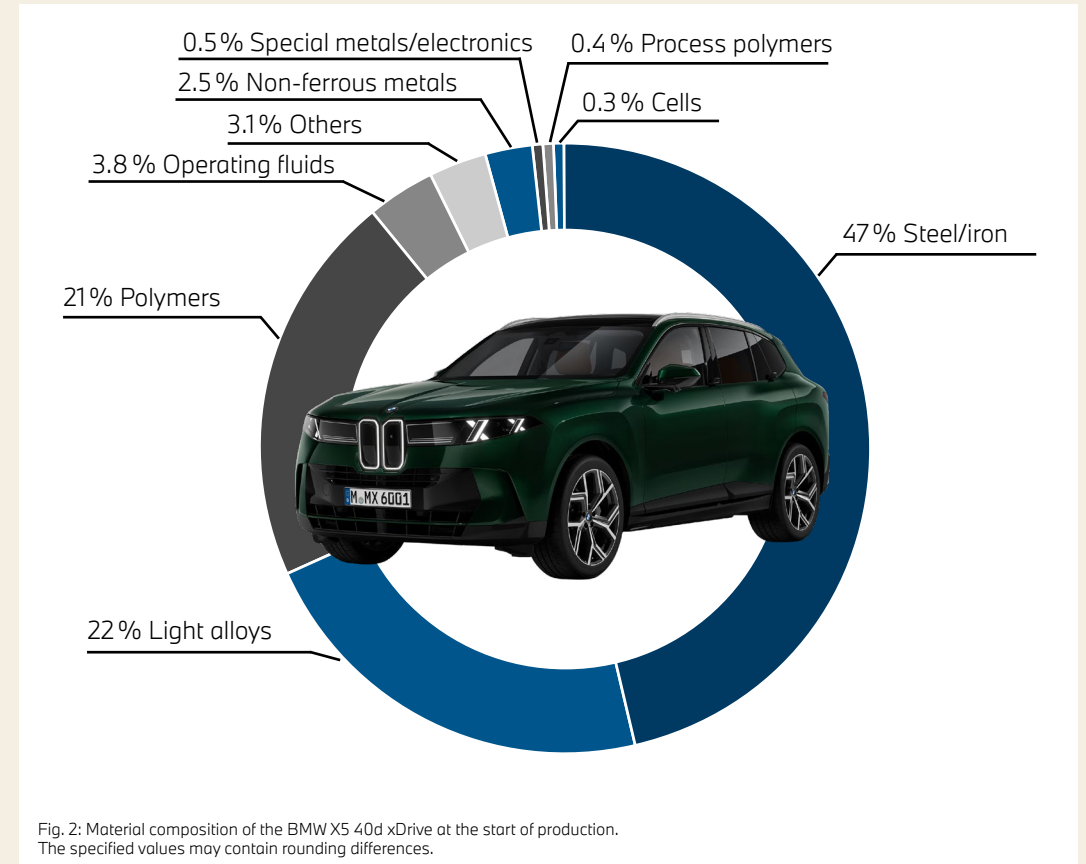
Figure 2 shows the material composition of the BMW X5 40d xDrive.

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.

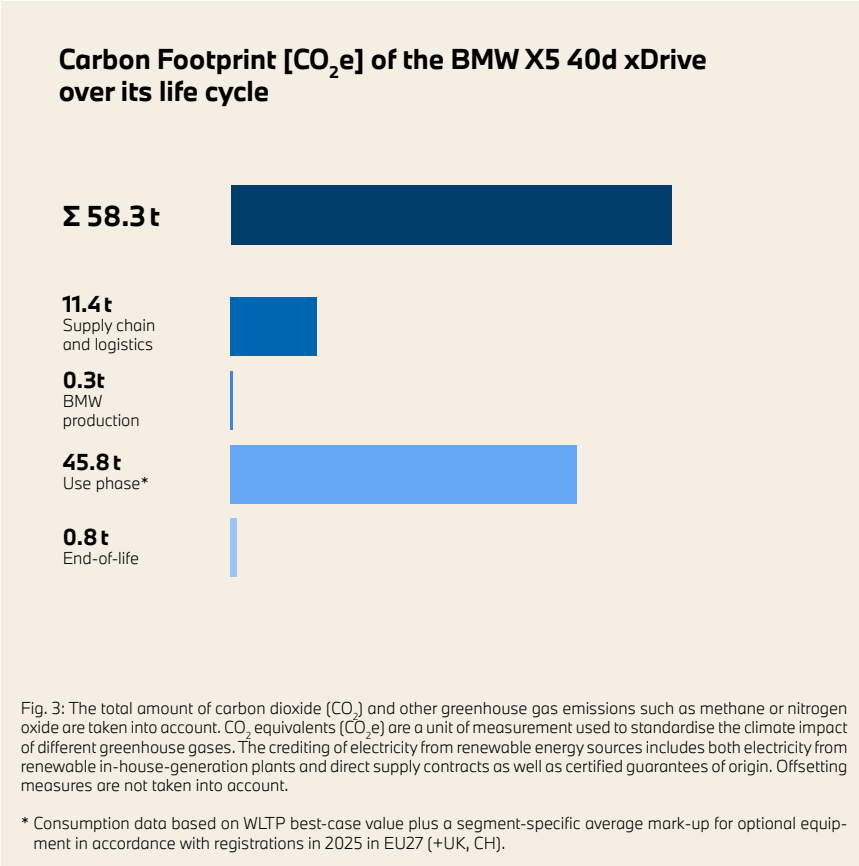
The aluminium cast wheel carriers and steering knuckles are manufactured using approximately 80% secondary material. The aluminium cast wheels contain about 70% recycled aluminium. In addition, the door body-in-white of the new BMW X5 uses aluminium containing roughly 35% recycled closed-loop material recovered and recirculated from the BMW Spartanburg press shop.

Based on the overall vehicle the BMW X5 40d xDrive has a calculated secondary raw material content of approx. 38 %.

These values have been calculated for the selected vehicle at the start of production of the new vehicle generation in 2026 based on specific supplier records as well as on average industry values and also include reutilised production residues.



2.2. CARBON FOOTPRINT OVER THE LIFE CYCLE.



This Product 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 X5 40d xDrive over its life cycle and the impact of using 100 % renewable energy in the usage phase.

The BMW X5 40d xDrive assessed for this Carbon footprint is handed over to customers with 11.7 t CO₂e. In-bound and outbound logistics account for 1.5 t 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.

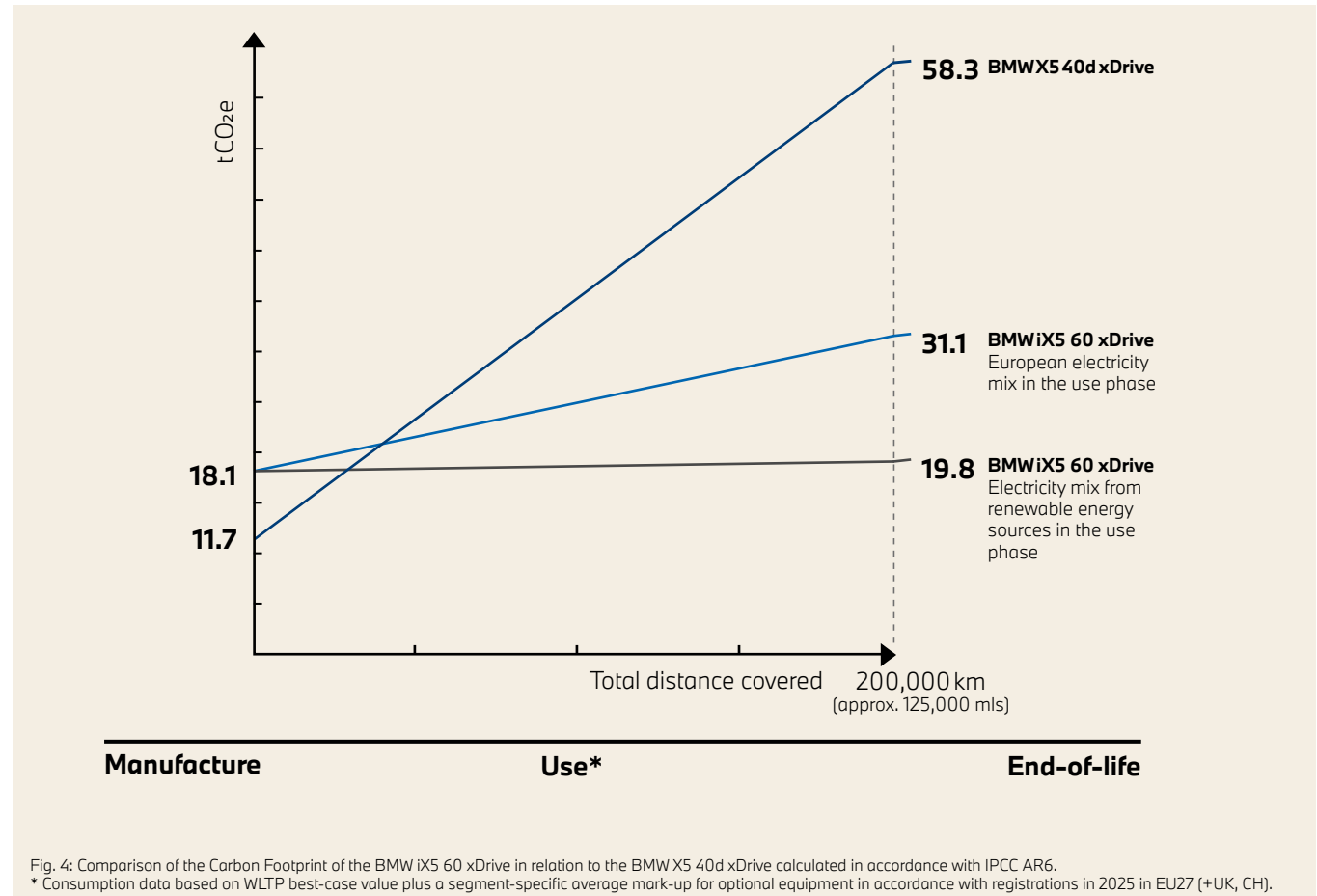
The use phase for the BMW X5 40d xDrive is based on WLTP consumption and a total distance covered of 200,000 km (approx. 125,000 mls). The emissions of the use phase have a significant influence on the climate impact of the vehicle. Based on the european fuel mix (local or regional fuel mixes might differ), these amount to 45.8 t of CO₂e.

2.3. CARBON FOOTPRINT COMPARED FOR DIFFERENT POWERTRAINS.

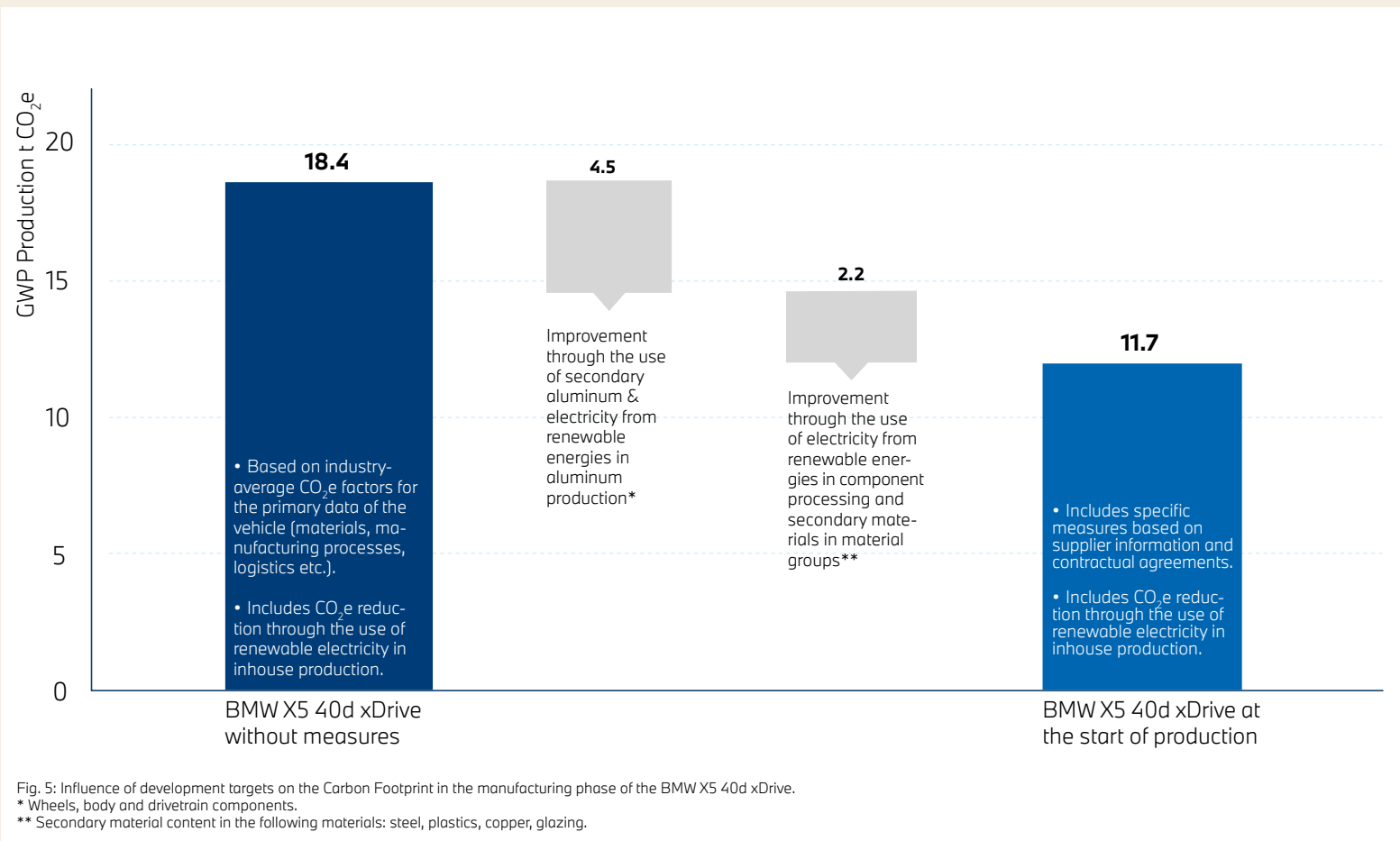
The production of the BMW iX5 60 xDrive causes 18.1 t of CO₂e. That is more than the BMW X5 40d xDrive with a combustion engine causes during production. The main reason is the energy-intensive production processes of the high-voltage battery.

However, besides production, consumption in the use phase of both vehicles is key to their environmental impact. At 200,000 km (approx. 125,000 mls) total distance covered, charged with european electricity mix in the use phase, the BMW iX5 60 xDrive's total emissions of 31.1 t of CO₂e are significantly lower than the 58.3 t CO₂e emitted by the BMW X5 40d xDrive.

Charging with electricity from renewable energy sources can reduce CO₂e in the use phase of the electric vehicle from 12.1 t to 0.8 t.



2.4. MEASURES FOR REDUCING THE CARBON FOOTPRINT.



In order to achieve internal sustainability targets, various measures were implemented during the production phase of the BMW X5.

Figure 5 illustrates, using the BMW X5 40d xDrive as an example, measures that contribute to improving the Carbon Footprint during the production phase by approximately 36 % compared with industry averages according to the MLC database. The use of electricity from renewable energy sources in in-house manufacturing is not shown separately and is already mathematically included in the 18.4 t CO₂e.

Taking these measures into account, the vehicle has a CO₂e value of 11.7 t at the time of delivery to the customer.

The values stated may be subject to rounding differences.

3. PRODUCTION AND WATER DEMAND.

Key production locations for the BMW X5 40d xDrive are the Spartanburg plant in the United States, the Steyr plant in Austria, and the aluminium foundry in Landshut, Germany. Body parts and seats are manufactured in Spartanburg, which also serves as the final assembly location for the vehicle. The combustion engine is produced in Steyr, while the associated crankcase and propeller shafts are manufactured in Landshut and delivered to the assembly plant.

These sites source their entire externally procured electricity demand 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 2025 across all global production sites was 1.62 m³* per new vehicle.

* Source: <https://www.bmwgroup.com/en/report/2025/index.html>
The specifications regarding water demand do not form part of the Product Carbon Footprint.



4. 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. An example of this is the complete and straightforward removal of operating fluids (e.g. refrigerant).

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 recycling network 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 Product 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.

5. 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 Product Carbon Footprint.

6. EVALUATION AND CONCLUSION.

The fifth generation of the BMW X5 impresses with technical innovations, a stunning new design and the integration of future-oriented technologies from the Neue Klasse. This underlines its exceptional status and reinforces its leading position in a segment that it originally established.

The Carbon Footprint of the BMW X5 was validated by the independent TÜV Rheinland Energy & Environment GmbH. It shows that the BMW Group is taking measures to reduce its environmental impact on climate change caused by greenhouse gas emissions.

