

Press Release
11 November 2013

Verifiably sustainable: ISO certificate for environmental footprint of the BMW i3.

The TÜV SÜD Technical Inspectorate confirms that the total life cycle potential of the BMW i3 for emitting greenhouse gases is around 30 to 50 percent less than in comparable conventional vehicles.

Munich. The BMW i3 hits the road – with the sheer driving pleasure typical of the brand and an officially confirmed environmental footprint. A few days prior to the market launch on 16 November 2013, the first thoroughbred electric model from the BMW Group with an ISO certificate 14040/14044 for the environmental footprint provided by independent inspectors is now being launched. This certifies that the BMW i3 complies entirely with the demanding targets defined during development for the environmental impacts generated during sourcing, production, usage and subsequent recycling. The Declaration of Validation for the product-related environmental footprint of the BMW i3 issued by the Technical Inspectorate TÜV SÜD confirmed the methods and the results of the relevant analyses. By comparison with conventional automobiles of its size and performance, the BMW i3 has greenhouse potential reduced by values between 30 and over 50 percent.

The certificate in conformity with the ISO standard is not simply a quality seal for the BMW i3 but also provides a confirmation of the holistic approach of the new BMW i brand for sustainable, individual mobility. “For the first time in the history of the BMW Group, we already defined sustainable targets for a newly designed vehicle over the entire value chain during the early strategic phase,” explained Ulrich Kranz, Senior Vice President BMW i. “The inspection looked at the entire life cycle from extraction of raw materials and manufacture, through usage to recycling, in order to take account of all environmental aspects. The fact that this approach and its results are now being verified by a neutral agency demonstrates that we have adopted a pioneering roadmap,” commented Kranz.

The certification procedure carried out by TÜV SÜD Management Service GmbH included a detailed review of the data used for the environmental footprint study implemented on the BMW i3, the production process and the results obtained from analysis based on clearly defined criteria.

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The experts stated in their conclusion that all the requirements of the ISO standard 14040/44 were complied with when the environmental footprint study was carried out and that the methods applied were compliant with the most advanced engineering standards. The accuracy of all the input data and the environmental information was also confirmed. This result confirms that the environmental footprint of the BMW i3 also meets the most stringent international standards.

The electric drive naturally provides the most important feature in the environmental footprint of the BMW i3. The engine's efficiency is significantly higher than in petrol or diesel engines. If generation of the electricity supplied to the high-voltage battery is also taken into account, there is further scope for optimising the environmental friendliness. The high share of recycled materials and the energy efficient production process are reducing the environmental impact of the BMW i3 even further. A greenhouse potential reduced by around 30 percent is already achieved by using energy from the EU 25 electricity mix, which takes account of all electricity generation in the European Union. A value improved by more than 50 percent compared with conventional automobiles results as soon as the BMW i3 is powered exclusively by energy generated from renewables, for example, wind or solar power.

The reduction of the greenhouse or CO₂ footprint documented in the environmental footprint of the BMW i3 also resulted from a large number of individual measures which had never been implemented with comparable consistency, as was explained by Ulrich Kranz: "The sustainability targets defined for BMW i automobiles have attained the same status as cost or weight criteria in the course of the development process. Every single component and each individual process stage has been accurately reviewed and analysed by us from the perspective of sustainability. This road route took us to a lot of innovative and pioneering solutions." This approach will be transferred also to other model lines in order to further intensify the BMW Group long term strategic commitment towards ecological, economical and social sustainability.



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The innovations realised in the BMW i3 range from the unique LifeDrive architecture with a passenger cell manufactured from carbon fibre-reinforced plastic (CFRP) and an aluminium chassis for mounting the engine, chassis, high-voltage battery and crash structures, and an exceptional array of materials used in the interior.

Leather tanned with olive-leaf extract, environmentally refined wood from certified cultivation in Europe and the tangible use of natural fibres in the instrument panel and the door panels mean that users are actually able to experience the premium character defined by sustainability. 25 percent by weight of each of the plastics used in the interior and the thermoplastics in the exterior have been derived from recycled material or renewable raw materials.

A maximally high proportion of raw materials capable of recycling and energy-efficient manufacturing procedures also plays a role in the application of aluminium and CFRP to optimise the environmental footprint. Most of the lightweight alloy components of the BMW i3 are made up of so-called secondary aluminium. This is not obtained from aluminium ore but from melted production scrap and can be produced using up to 95 percent less energy. Furthermore, primary aluminium also makes a contribution to the sustainability of the BMW i3 since it is produced using energy generated from renewable resources.

The BMW Group makes use of its unique expertise in the area of industrial CFRP production to manufacture the Life Module. The aim is to adopt a multidisciplinary approach to creating maximally sustainable manufacturing processes. Around ten percent of the CFRP used in the passenger cell is made of recycled materials. For example, offcuts from the manufacture of CFRP components can be returned to the production stages in a process specially developed for BMW i automobiles. This reduces the need for raw materials from the carbon-fibre plant located at Moses Lake (USA). The facility produces the raw material for all the components manufactured from CFRP in the BMW i3. 100 percent of the energy required to manufacture the carbon fibres is produced from locally generated hydropower. The electricity for production of BMW i automobiles at the Leipzig plant also comes exclusively from renewable energy sources.



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This is the first time that wind turbines have been used at the plant of an automobile manufacturer in Germany to supply electricity directly for production purposes on site.

The BMW Group

The BMW Group is the leading premium manufacturer of automobiles and motorcycles in the world with its BMW, MINI and Rolls-Royce brands. As a global company, the BMW Group operates 28 production and assembly facilities in 13 countries and has a global sales network in more than 140 countries.

In 2012, the BMW Group sold about 1.85 million cars and more than 117,000 motorcycles worldwide. The profit before tax for the financial year 2012 was euro 7.82 billion on revenues amounting to euro 76.85 billion. At 31 December 2012, the BMW Group had a workforce of 105,876 employees.

The success of the BMW Group has always been built on long-term thinking and responsible action. The company has therefore established ecological and social sustainability throughout the value chain, comprehensive product responsibility and a clear commitment to conserving resources as an integral part of its strategy.

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