Managing the greenhouse gas balance

- Calculation of the product carbon footprint of own and purchased products
- Comparability of the calculation of emitted greenhouse gases and a fair evaluation
- Compliance with EU regulations
- Possibility to compare suppliers' offers in the course of carbon pricing
- Building USP through the lowest possible, certifiably verifiable PCF

The Asset Administration Shell provides a method for automated sharing and easy retrieval of carbon footprint information per product. The carbon footprint takes into account the allocation of emissions across the entire supply chain, from raw material extraction to product completion across different data ecosystems.

Compliance with sustainability regulations

Reducing greenhouse gas emissions to slow down climate change is an essential goal of the European Union and the industry. This will be accompanied in the foreseeable future by new regulations on the part of the EU as well as carbon pricing and increasing requirements for the sustainability of manufactured products. This also results in the need to determine the carbon footprint of manufactured products (PCF) and to provide information on the carbon footprint throughout the entire supply chain. Up to now, detailed information on the existing carbon footprint of purchased parts and materials has often not been available until in-house processing. Information from suppliers is often estimated based on databases.

Automated retrieval of PCF information via Asset Administration Shell

The Asset Administration Shell offers the possibility to integrate the "PCF Data Connector" sub-model, which provides access to the different data ecosystems for automated sharing of PCF information. This achieves interoperability of different data ecosystems and PCF calculation methods. The Asset Administration Shell is also the basis for the "Digital Nameplate", which is extended with further product information and results in the "Digital Product Passport".