

Master thesis / Bachelor thesis / Project thesis

Analysis of existing (data) tools for assessing sustainability in electric motor production (LCA, AI,...).

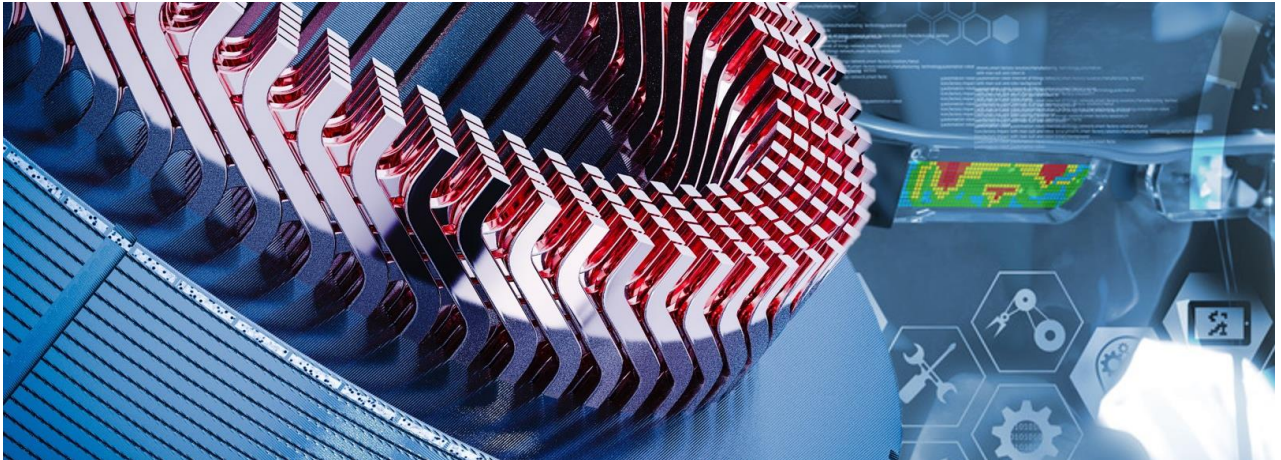


Image source: PEM of the RWTH Aachen

Initial situation:

Electrically powered traction motors are, according to current calculation methodologies, required in all major markets in order to meet emissions targets and, accordingly, are represented in all future-proof propulsion systems. At the same time, of course, the production and use of electric motors is not free of carbon dioxide emissions and other relevant environmental impacts. In the course of increased public awareness of the impact of products and services on our ecosystem, a variety of sustainability assessment methods have been developed. To date, however, none of these methods can be applied holistically to the product life cycle of the e-motor, from raw material production through the use phase to recycling.

Your task:

Your task is to identify existing approaches and methods for assessing the sustainability of products as well as production independently of the industry and to evaluate them against the background of the electric motor use case.

This activity is specifically divided into the following work packages:

- Research of methods for sustainability assessment both on the level of the product and the production
- Analysis of the processes required for the production, use and disposal of electric motors
- Identification of the need for adaptation of existing methods in the context of electric motor production

Requirements:

- Degree in engineering, computer science (or comparable).
- Structured way of working
- Good knowledge of Microsoft Office

Offered:

- Distinct tasks and flexible processing
- Professional support and insight into industry and practice
- Independent execution with flexible arrangement via Microsoft Teams or personal coordination

Interested?

Please send a current transcript as well as your resume and references to the address below.

Your contact at PEM:

Michael Nankemann, M.Sc.
m.nankemann@pem.rwth-aachen.de