GKN AEROSPACE

Master's Thesis
30 credits/20 weeks
1-2 Thesis worker(s)

Applicability of Social Life Cycle Assessment in the Aerospace Industry

Project Background

Sustainability is becoming an increasingly important challenge for the aerospace industry, as in many other sectors worldwide. While much attention is placed on reducing climate impact, the industry also has significant influence on social aspects such as safety in both flight operations and manufacturing processes. There is also a growing awareness of the broader impacts across the entire value chain, including issues such as working conditions, community well-being, and ethical responsibility. One way to address these concerns is through Social Life Cycle Assessment (S-LCA). Integrating S-LCA into aerospace engine design and manufacturing could provide valuable insights and support more responsible decision-making in the industry.

What you will do at GKN Aerospace

The thesis work will focus on:

- Reviewing existing S-LCA methodologies and comparing their applicability and effectiveness in the aerospace industry.
- Assessing social impact categories, their relevance to the aerospace industry, and how they can be measured.
- Investigating the challenges and benefits of conducting S-LCA on aerospace products.
- Testing a suggested methodology by conducting an S-LCA on a selected aero-engine component.

As a thesis worker, you will become part of GKN Aerospace Engines division's sustainability team where you will receive support from a sustainability specialist and an LCA engineer. You will get the chance to collaborate with colleagues across the organization and gain valuable knowledge on how to apply life cycle thinking in both product development and production.

Our offices are located at the GKN Aerospace Engines headquarters in Trollhättan. We offer flexibility for remote work, but we also appreciate if you can conduct part of the work on site when it's most beneficial. Upon completion, each thesis worker will be compensated with 1 000 SEK per university credit.

Qualifications

- Master's studies in product development, sustainability engineering, mechanical engineering, or a related field.
- Knowledgeable in life cycle assessment.
- Interest in sustainability and ethical supply chains.

Hiring process

Apply by sending your resume and cover letter to Johanna Nylander and Isak Rehnberg at: Info.EnginesSustainability@gknaerospace.com

Last date for application: 2025-11-30. Interviews will be held continuously and the position could be filled prior to the last application date. Do not hesitate to apply!

About us

GKN Aerospace is a multi-technology leader in the aerospace industry. Our mission is to be the most trusted and sustainable partner in the sky. In our Eninges division, we drive innovation with a strong focus on safety, sustainability, and performance, shaping the future of flight with our customers and partners.