



## DEPARTMENT OF AUTOMOTIVE AND AERONAUTICAL ENGINEERING

# Creating a Life-Cycle Assessment of an Aircraft

Task for a *project*

### Background

A Life-Cycle Assessment (LCA) examines the environmental impacts from all stages of life of a product. Environmental impacts include all resources from the environment and all emissions into the environment. A LCA allows realistic comparisons of the environmental impacts of different products. The creation of LCAs is standardized by ISO 14040/4 and separated into four phases. This project is concentrated on the second phase (life-cycle inventory analysis) for commercial aircrafts.

### Task

The task consists of creating a basic life-cycle assessment for an aircraft. This includes:

- Literature research for already existing life-cycle assessments of aircraft.
- What methods were used to create these LCAs?
- What were the results of these LCAs?
- How can we easily create a basic life-cycle assessment for an aircraft?
- Collection of the relevant data for the LCA
- Generation of an LCA.

The report has to be written in English based on German or international standards on report writing.