

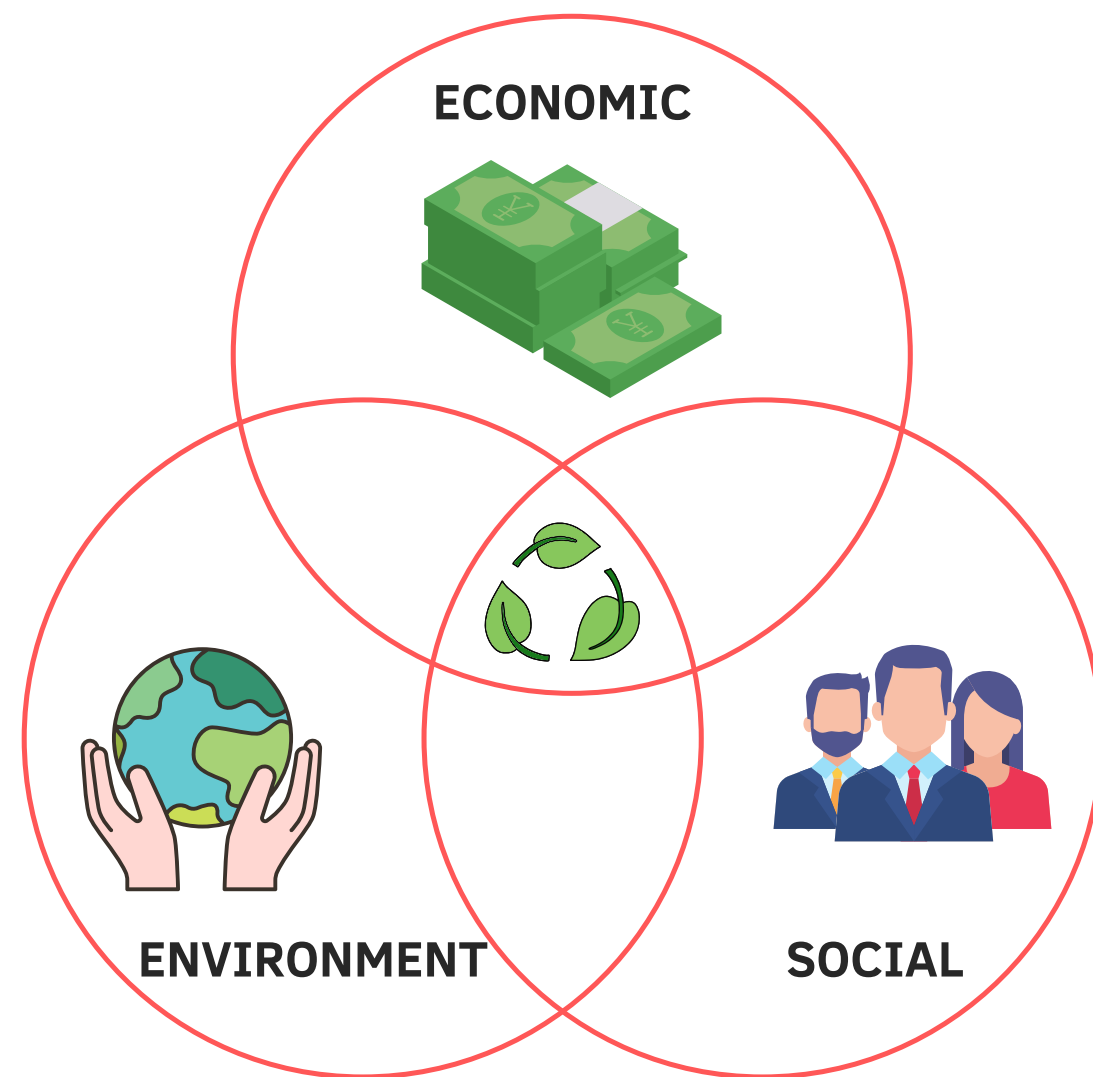
HOW TO DEVELOP AN INTEGRATED FRAMEWORK FOR THE SUSTAINABILITY ASSESSMENT IN THE AIRCRAFT MANUFACTURING INDUSTRY?

INTRODUCTION

When assessing sustainability the focus mainly lays on the environment

The economic and social pillars are excluded

➔ **No holistic assessment**



Life cycle sustainability assessment in the aviation industry is:

- only rarely used
- only partly used
- not well defined
- very dependent on scope



➔ **A change is needed**

STUDY DESIGN

1 APPLY CURRENTLY USED METHODOLOGY



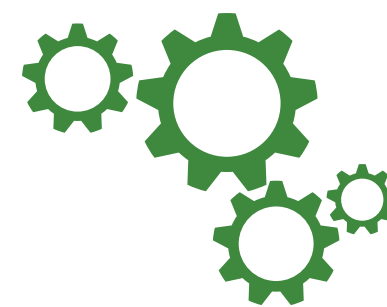
- Perform Product Environmental Footprint Analysis
- Identify what is missing in regards to the other two sustainability pillars

2 COLLECT DATA FOR INTEGRATED FRAMEWORK

- Ask experts what should be included in a integrated framework
- Analyse findings & identify indicators



3 DEVELOP INTEGRATED FRAMEWORK



- Combine findings into one integrated framework
- How to deal with problems like double counting

4 GIVE RECOMMENDATIONS FOR DECISION MAKING

- How should this framework be used to help with decision making



GOAL

"To contribute to a more sustainable aviation industry, while increasing the awareness that sustainability goes beyond environmental aspects"



CHALLENGES

That might occur:

- expert availability
- data quality
- different data types (qualitative and quantitative)
- low availability of social data
- technology for PEF study is still under development ➔ high uncertainty



ACKNOWLEDGEMENT:

Many thanks to the LDE Center for Sustainability for organising this interdisciplinary thesis lab and supporting all of us with our thesis work. Thanks also to all the other students for interesting discussions, support and the knowledge share.

Elena Peters
M.Sc. Management of Technology