

Thursday June 8

Keynote Mobility Industry

*The role of lightweight for a competitive and fossil-free mobility sector in Europe:
Getting mature technologies from R&T into customer products – the quest for further weight saving in aeronautics.*

Peter Glaser

Vice president of Engineering, Research & Technology, FACC Operations GmbH
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*THE ROLE OF LIGHTWEIGHT FOR A COMPETITIVE
AND FOSSIL-FREE MOBILITY SECTOR IN EUROPE*

P. Glaser - FACC

VP Engineering, Research & Technology

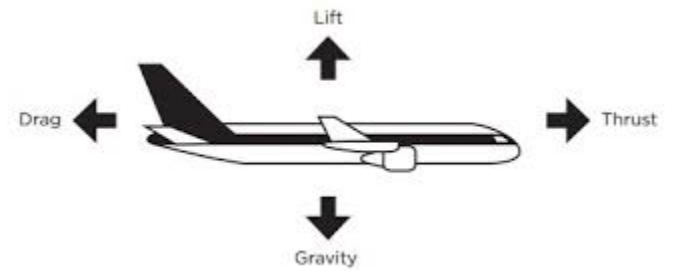
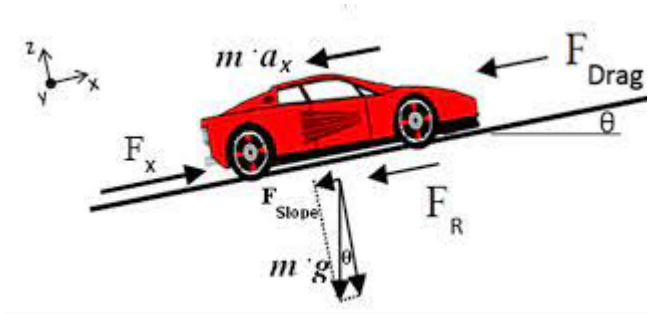
06/2023

MASS IN MOTION CONSUMES ENERGY

Energy to overcome inertia:
Mass related



Energy to outrun „the pull of earth“:
Mass related

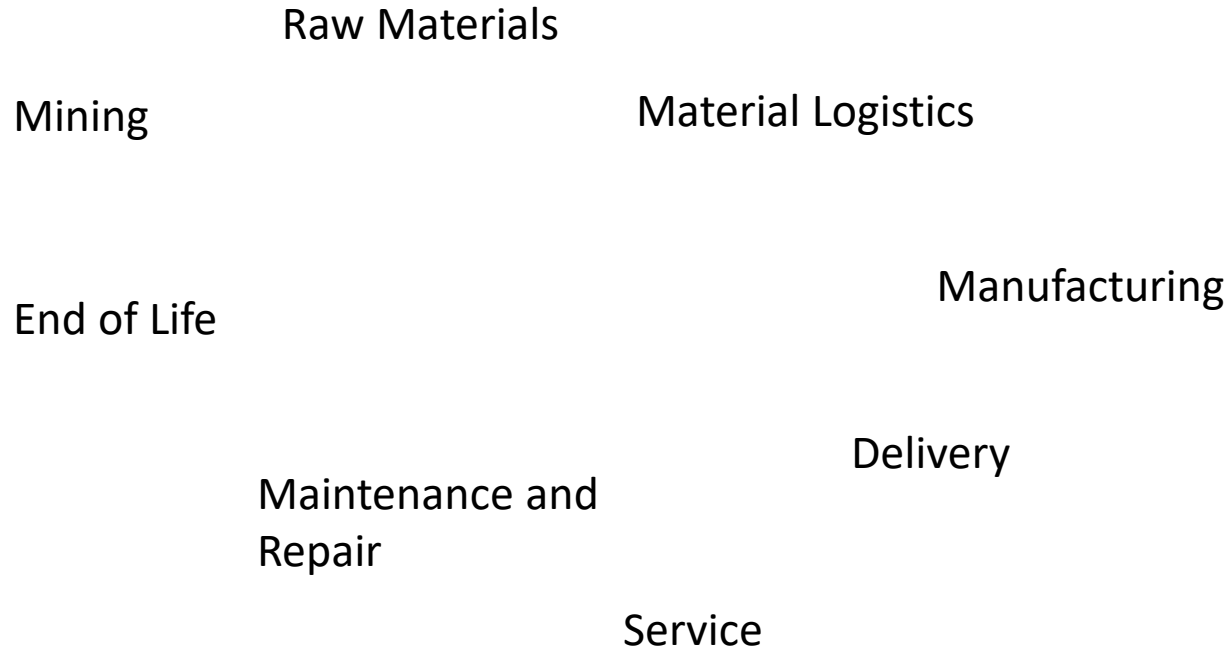


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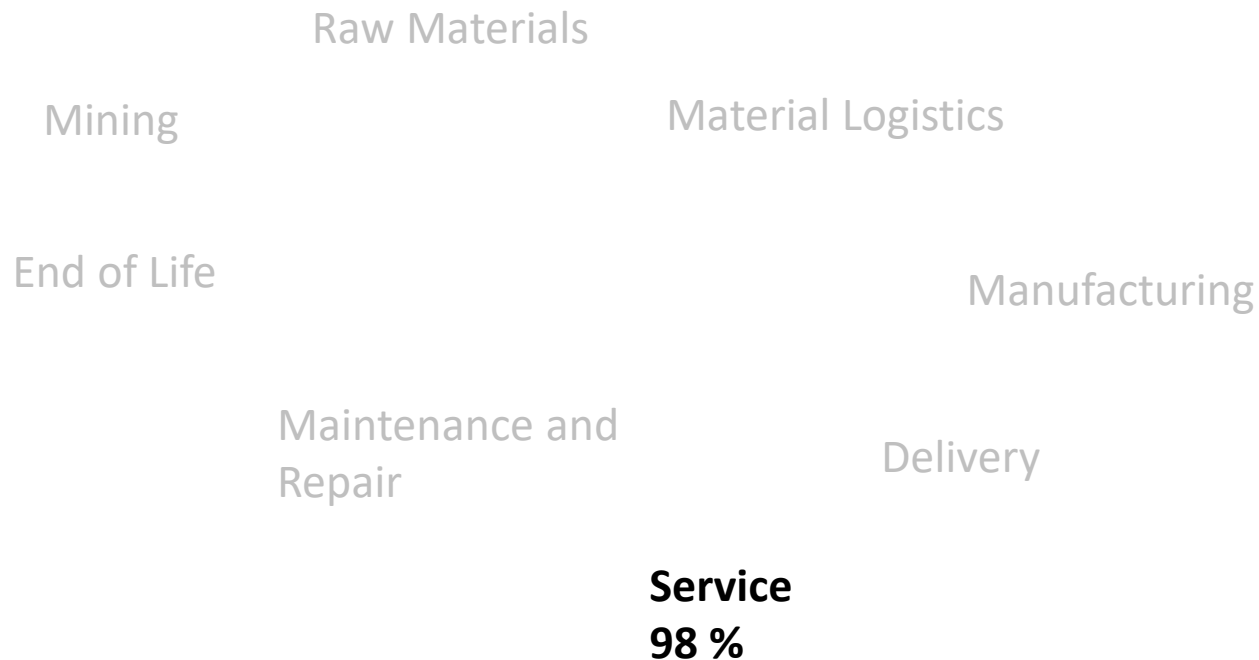
Until all energy is green, energy saving in any sector promotes shutting down combustion based powerplants; based on usage competition



SETTING PRIORITIES IN THE LIFE CYCLE



SETTING PRIORITIES IN THE LIFE CYCLE



For Commercial Aircraft, the paramount qty of green house gas emissions are caused from operating the product – *mass in motion*

LIGHT WEIGHT AS MISSION ENABLEMENT



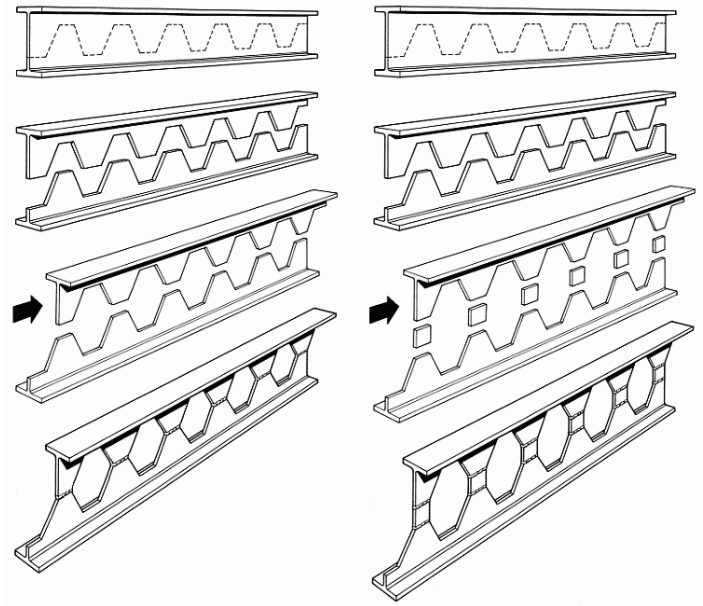
LIGHT WEIGHT – THE COST FACTOR



„Affordable Light Weight“
Affordable for whom?

SUCCESSFUL LIGHTWEIGHT ENGINEERING

Castellated Beams;
 Representing „clever cutouts“



SUCCESSFUL LIGHTWEIGHT ENGINEERING

3D Print example



CONCLUSIONS

- *Lighter* in mobility is usually better for many reasons
- *Lighter* saves energy in operation and saves raw materials in production
- *Super- Light Weight* can be expensive; which is a problem

Thank you



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