

Prospective life cycle assessment of electric passenger aircraft (LCAir)

Goal: Using prospective life cycle assessment, this project aims to evaluate the environmental and resource impacts of hybrid-electric aircraft intended for regional traffic, for the period 2030–2060. Additional goals are to establish electric aviation as an active research area within SEC and to invite partners who are active in sustainable aviation to a joint project.

Expected Result: This project will contribute to knowledge-building about electric aviation by presenting results from two case studies: (1) An assessment of the environmental and resource impacts of a regional hybrid-electric aircraft (approximately 30 seats) ready for commercialization, over a complete 30-year lifetime and for varying flight missions. (2) An assessment of the environmental and resource impacts of a fleet of hybrid-electric aircraft adapted for regional air traffic in the Nordics, including also the necessary airport charging infrastructure.