

Zero emission

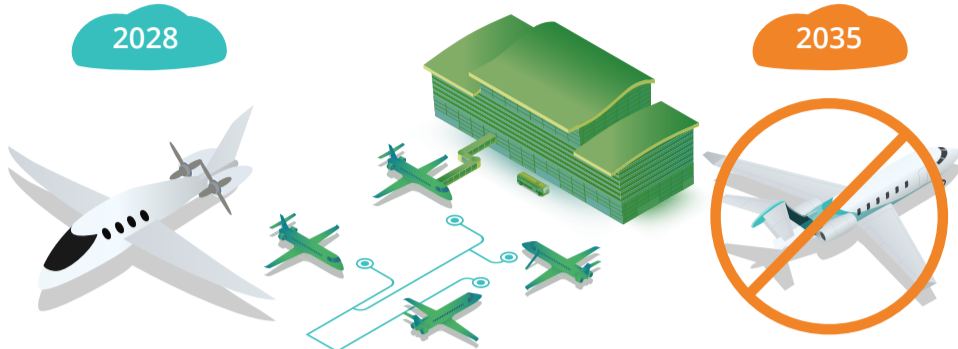
# STATUS QUO

Shut down aviation



2028

2035



The aviation sector is currently at a crossroad: Shut down aviation or accept the challenge and make the transition to zero-emission aviation.

NTNU has decided to take the challenge and will put our efforts into contributing to this necessary transition.

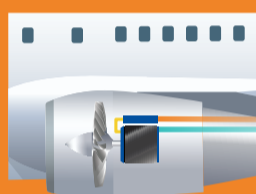
## Application areas



Battery-powered all-electric aircraft



Hydrogen-powered aircraft



Cryo-electric aircraft



Research and development is concentrated along three axis. Battery-powered all-electric aircraft will play a role for smaller short-range commuter aircraft. Hydrogen-powered airplanes will be needed to decarbonize regional mid-range aircraft, while more disruptive superconducting solutions are needed to further scale up zero-emission aviation toward 2050, including also non-CO2 emissions.

NTNU has activities all of these three axis.



Leadership in education



Basic research for next-generation disruptive technologies

**Strategic measures NTNU (ambition)**



Complete demonstrators from source to propulsion



Public perception and societal acceptance



Socio-economic drivers & techno-economic benefits

NTNU Clean Aviation has developed five strategies, including education leadership, basic research, demonstrator development, social acceptance activities and techno-economic studies. We believe that efforts in all these areas are necessary to make this transition, not only focusing on the technology, but also on the social and economic aspects.

Clean aviation for a better world



# Join us!

We work for a cleaner aviation sector with our network of industry, stakeholders, researchers and students



<https://www.ntnu.no/ie/cleanaviation>



Clean Aviation

 NTNU