



# Dutch Sustainable Aviation policy

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# Overview

- CO<sub>2</sub>-ceiling
- SAF
- Innovation: Aviation in Transition programme



# Political context

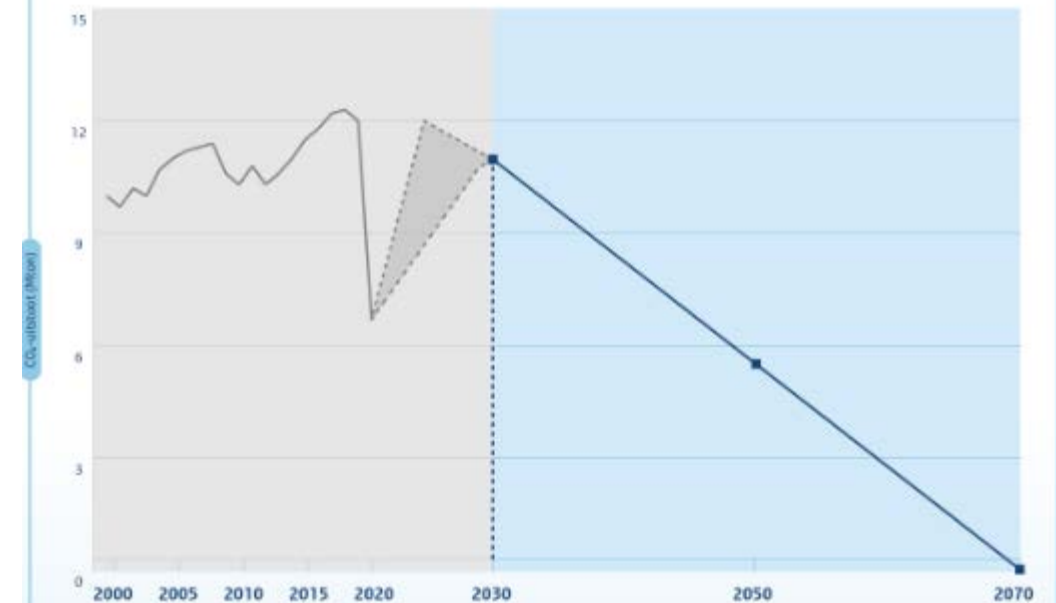
- › Sustainable Aviation Agreement (2018)
- › Aviation Policy Memorandum (2020)
- › Coalition Agreement (2022)
- › The National Growth Fund



# CO<sub>2</sub>-ceiling

## CO<sub>2</sub>-doelen voor vertrekkende internationale vluchten uit Nederland

- 1**  
**2030**  
CO<sub>2</sub>-uitstoot op het niveau van 2005
- 2**  
**2050**  
50% minder CO<sub>2</sub>-uitstoot dan 2005
- 3**  
**2070**  
nul CO<sub>2</sub>-uitstoot





# SAF Policy

- › Sustainable Aviation Agreement (2018)
- › Public private cooperation with stakeholders
- › Opt-in for aviation in implementation of REDII
- › SAF goals:
  - 14% SAF in 2030
  - 100% sustainable in 2050
- › Context ReFUEL



## SAF policy

- › NL is one of the ambassadors of the Clean Skies for Tomorrow – SAF policy toolkit
- › NL will join ACT SAF and made a financial contribution of 500.000 to the environmental fund of ICAO to support capacity building and setting up projects to advance the use of SAF globally
- › NL will also host the EUR/NAT regional seminar on SAF on 13 and 14 april in Rotterdam
- › SAF is of major importance in reaching the Long Term Aspirational Goals of Net-Zero in 2050!



# Aviation in Transition (LiT)

## Goals

- Achieving a climate neutral aviation sector by 2050
- Accelerating the development of sustainable technology
- Structural increase of earning capacity of participating organisations

## How we do this?

- Financial contribution from Dutch National Growth Fund (NGF)
  - EUR 383 million
- Financial matching by Aviation sector
- Aviation in Transition programme



# Programme overview and structure

- Multi-year programme (2023-2030)
- 3 programme lines:
  - Sustainable Technology
  - Sustainable Knowledge
  - Sustainable Ecosystems
- 13 projects
- Cooperation between 60+ organisations
- 3 demonstrator aircrafts





# Sustainable Technology



## Hydrogen combustion

- Consortium NAC with Rolls- Royce
- Fokker 100 demonstrator platform retrofit



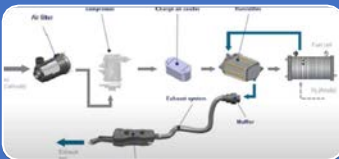
## Hydrogen Fuel Cell Electric

- Consortium HAPSS with DASH-8-300 retrofit
- Consortium Embraer demonstrator aircraft with High Temperature Fuel Cell



## Materials, Production Technology and Structures

- Consortium GKN Fokker small, medium & large light weight structure technologies
- Design & manufacturing technologies for factory of the future (thermoplastics)



## Electrical & Thermal Systems

- Consortium GKN Fokker Electrical High Power and Data Distribution and Methods
- Consortium Aeronamic for thermal and pneumatic systems



# Sustainable Knowledge



## Flying Vision

- Consortium TU Delft & partners
- Towards an ecosystem-wide vision and roadmap for the research and development of innovations for climate-neutral aviation



## Promising research

- Cooperation NLR and TU Delft
- Technology research for > 2030 - Open calls

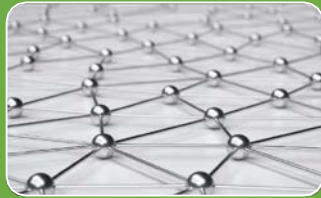


## Dutch Aviation Systems Analysis Lab DASAL

- Cooperation NLR & partners
- 'digital twin' of the aviation ecosystem



# Sustainable Ecosystem



## Strengthening Ecosystem

- Open calls
- Through resources for SMEs for open innovation, outside the fixed consortia and supporting companies with valorisation



## International cooperation

- Aviation in Transition
- Improving access to the international market by connecting research organizations & companies to the international value chain and European programs maximizing social and economic impact.



## Human Capital Agenda

- Consortium CVBLO
- Providing sufficient and adequate trained staff with the focus on technology, sustainability and innovation.