



Ministry of Infrastructure
and Water Management

SAF, LCAF and cleaner energies

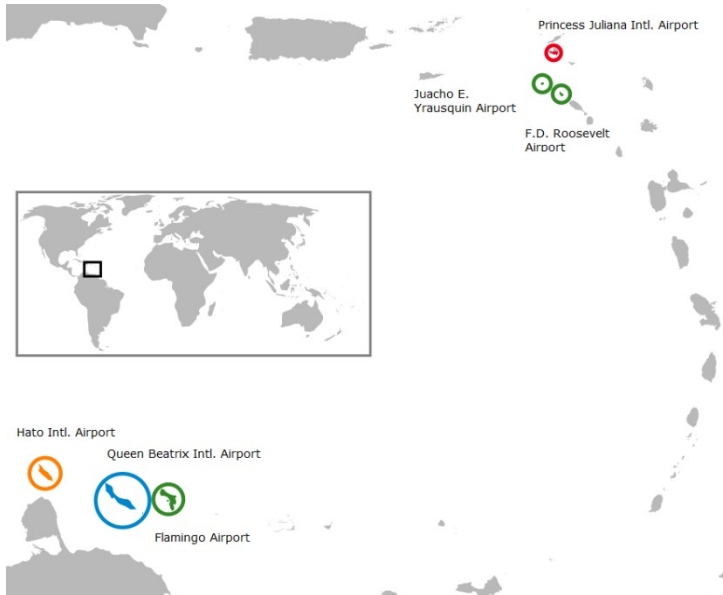
Jesper van Manen, NL DGCA

Second Arab Forum for Environmental
Protection in the Arab Civil Aviation Industry

Marrakech, 27 February 2024



Aviation in the (Kingdom of the) Netherlands

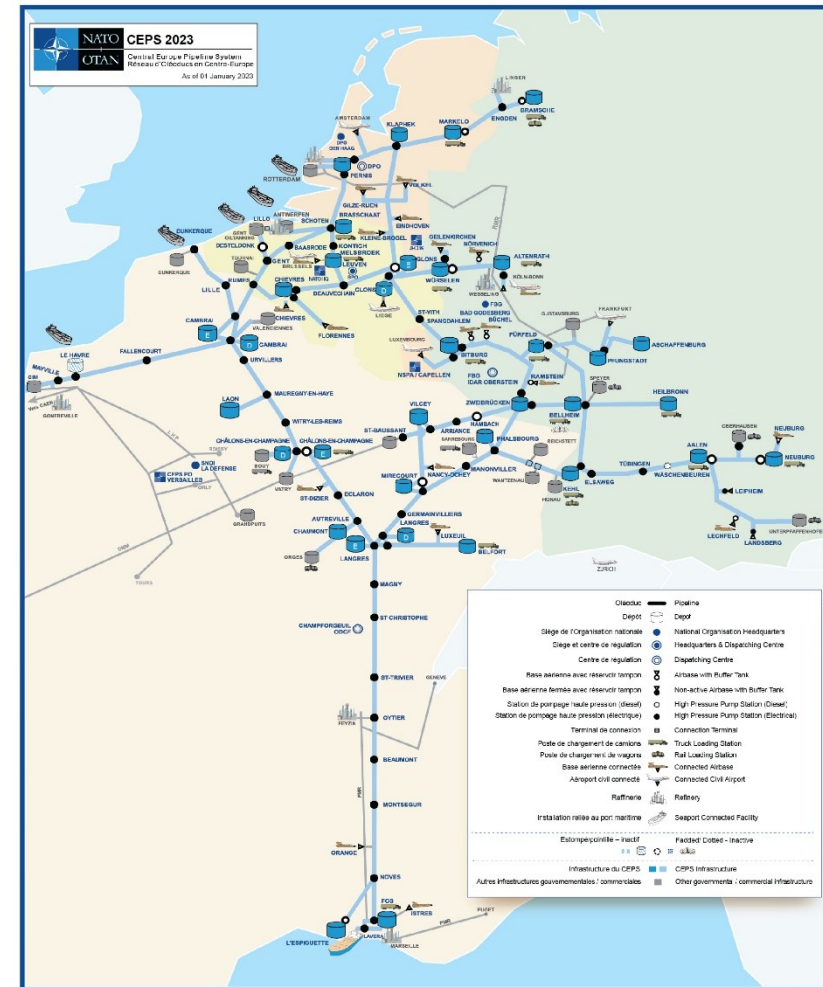
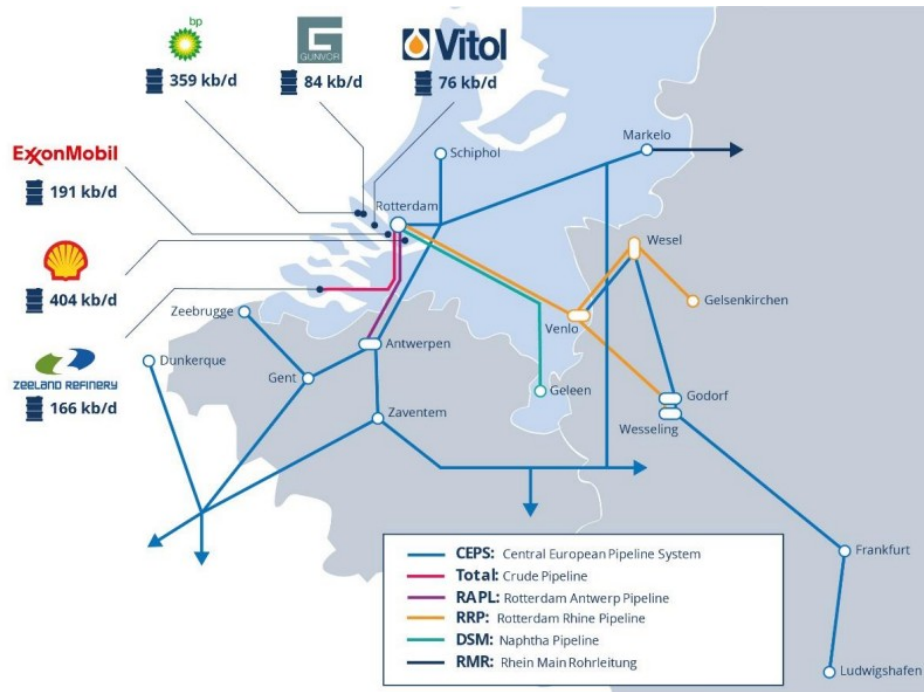


Schiphol 2023:

- > 464k movements
- > 1.4m tons freight
- > 62m pax



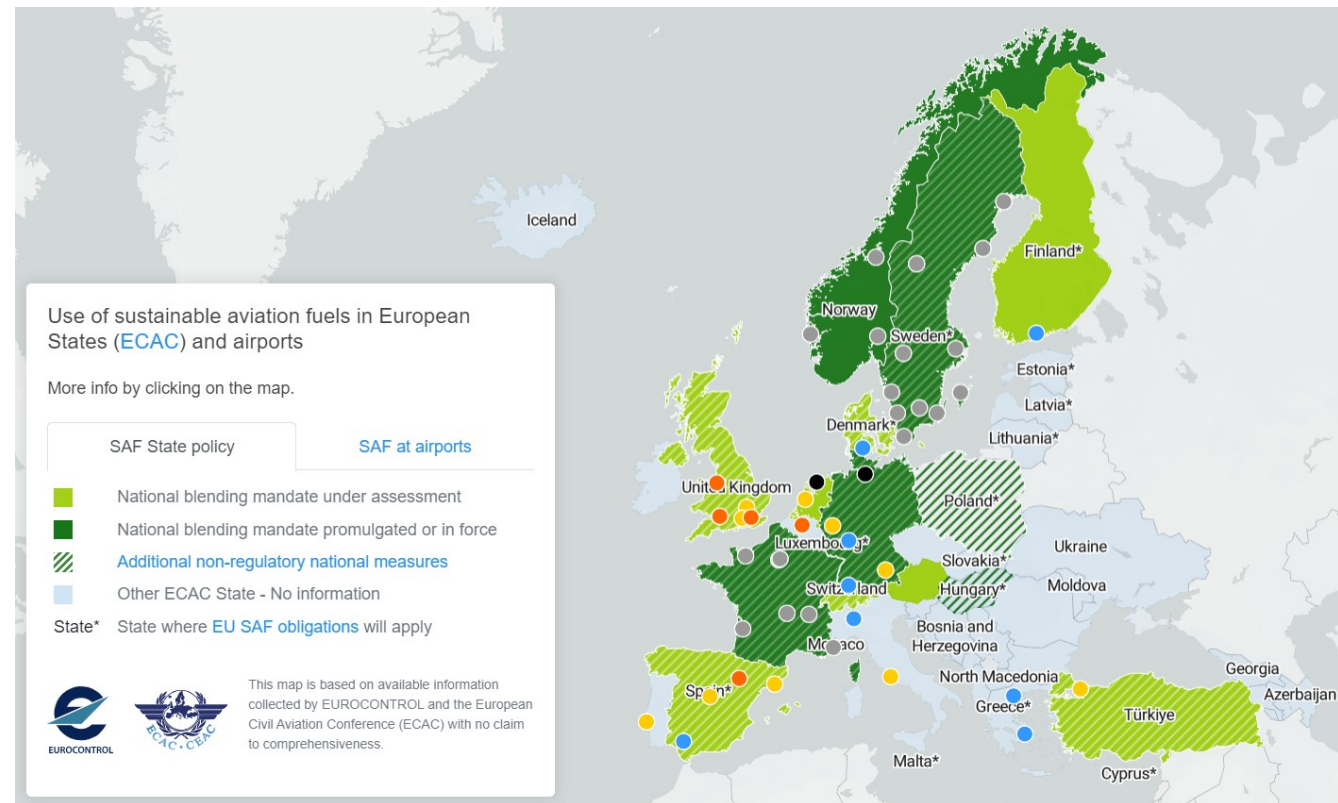
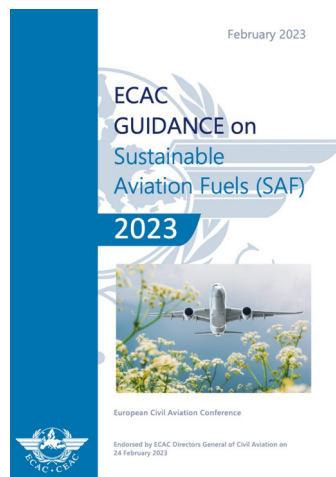
Large national (aviation) fuels industry





ECAC and its 44 states

- › ECAC SAF policy roadmap
 - State roadmaps (part of State Action Plans)
 - Capacity-building





National SAF policies and ambitions

- › National targets of 14% SAF uplift in 2030 and 100% in 2050
 - Initially explored a national blending mandate
 - New European legislation and new focus on hydrogen aviation
- › Sustainable aviation table
 - Set and supports the national targets
 - 2021: joint [SAF action programme](#)
- › AF-KLM: 10% SAF in 2030, 1% now, gov as launching customer
- › Airports (publicly owned) developing own policies
- › Political support for PtL/hydrogen/battery-electric



SAF investments in the Netherlands

- › HEFA plants (nearly) under construction:
 - SkyNRG (greenfield near Groningen): 100k tons SAF p.a.
 - Neste (existing bio-refinery): 1.2m tons SAF p.a.
 - Shell (refinery): 400-450k tons SAF p.a.
 - Gunvor/Varo (refinery): 200-250k tons SAF p.a.
- › Various other plans:
 - Enerkem (WtJ), Gidara (MtJ), Koole, Synkero (PtL), UPM, Zenith (PtL)



Main challenges up to 2030

- › Ramping up from zero to a commodity market
- › Clarifying and implementing new European legislation
- › Tackling barriers as we run into them
- › Scaling up new pathways, especially AtJ



Main challenges 2030-2050

- › Interdependencies with future hydrogen economy
- › Infrastructure for hydrogen aviation
- › Business case for PtL production