

Griffith University **Aviation Reimagined** 2024 Webinar Series
Session 1: Decarbonising aviation in context - The economic and regulation issues

Global and national environmental regulation for aviation

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A short introduction



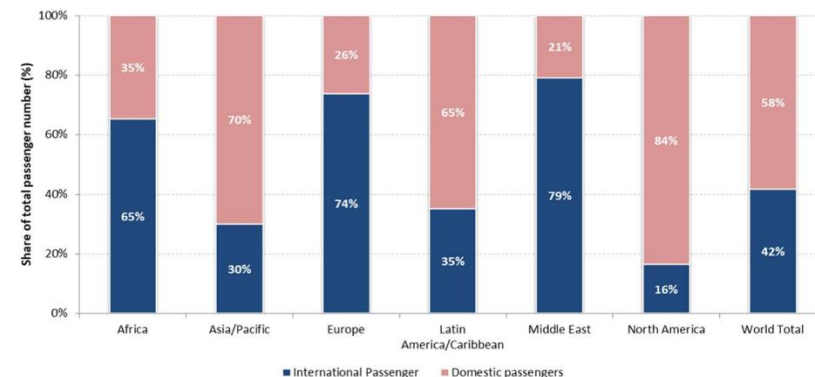
- AEF is a UK-based environmental NGO concerned exclusively with civil aviation's environmental impacts. Based in London, it's funded by environmental and philanthropic grant-making organisations and foundations, and its members.
- Founded in 1975, our membership comprises groups representing communities living around the UK's airports/airfields and under flightpaths.
- We provide a civil society voice in UK and international policy forums, such as the Jet Zero Council.
- AEF is a co-founding member of the International Coalition for Sustainable Aviation (ICSA) which provides environmental NGO's with observer access to the UN's International Civil Aviation Organisation (ICAO), actively participating in its technical work and the political negotiations since 1998.

ICAO “global solutions for a global industry”



- Vision: achieve the sustainable growth of the global civil aviation system
- ICAO sets standards and recommended practices (e.g. production standards to limit aircraft noise and emissions)
- Policy: developed countries are called on to pursue the limitation or reduction of greenhouses gases from international aviation working through ICAO (Article 2.2 of the Kyoto Protocol)
- ICAO is not a regulator ... policies and resolutions are non-binding
- Policies rely on states legislating e.g. CORSIA
- And of course it only applies to international aviation

Share of international-domestic passenger traffic by region (2019)



CORSIA



Framework agreement

CORSIA eligible fuels

CERT tool

MRV requirements

Emissions unit criteria



Adopted in a spirit of compromise

No surrender obligations up to 2023

Reviews haven't focused on the big issues

Not mandatory until 2027, ends in 2035

Debate has moved on from offsets





Aspirational ICAO targets

LTAG

- 7. ... Member States are **encouraged** to work together **to strive to achieve** a collective long-term global **aspirational** goal for international aviation (LTAG) of net-zero carbon emissions by 2050, in support of the Paris Agreement's temperature goal, **recognizing that each State's special circumstances and respective capabilities** (e.g. the level of development, maturity of aviation markets, sustainable growth of its international aviation, just transition, and national priorities of air transport development) will inform **the ability of each State to contribute to the LTAG within its own national timeframe**;
- 8. *While recognizing* that the LTAG is a collective global aspirational goal, and **it does not attribute specific obligations or commitments in the form of emissions reduction goals to individual States**, *urges* each State to contribute to achieving the goal in a socially, economically and environmentally sustainable manner and in accordance with national circumstances

CAAF/3

- 1. To support the achievement of the LTAG, ICAO and its Member States **strive to achieve a collective global aspirational Vision** to reduce CO2 emissions in international aviation by 5 per cent by 2030 through the use of SAF, LCAF and other aviation cleaner energies (compared to zero cleaner energy use).

A good case for regional action

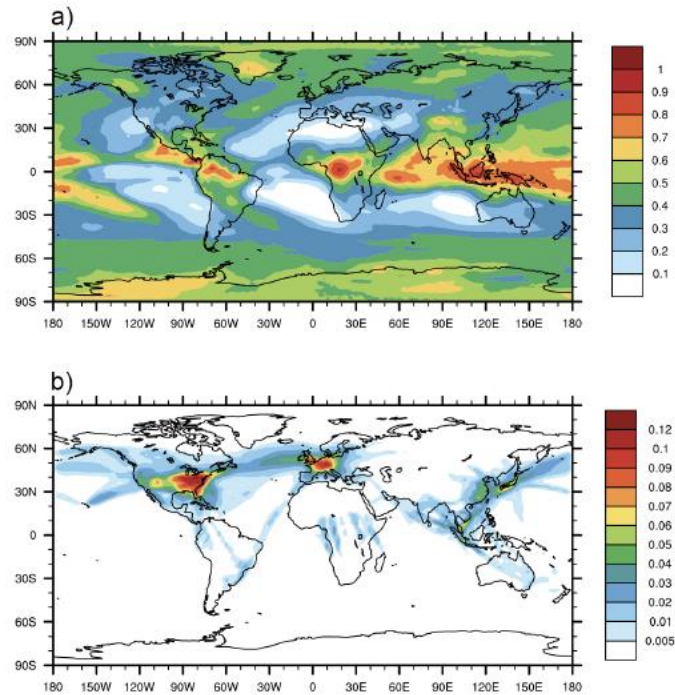


Figure 11. Panel (a): global map of annual mean cirrus cover (mean 0.40) and (b) cover by contrails exceeding an optical depth (at 550 nm) of 0.1 (mean 0.0050).

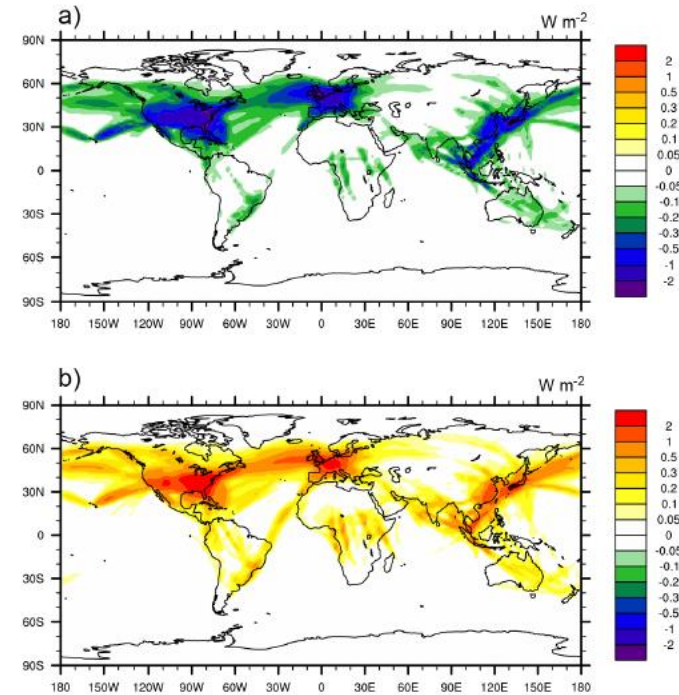
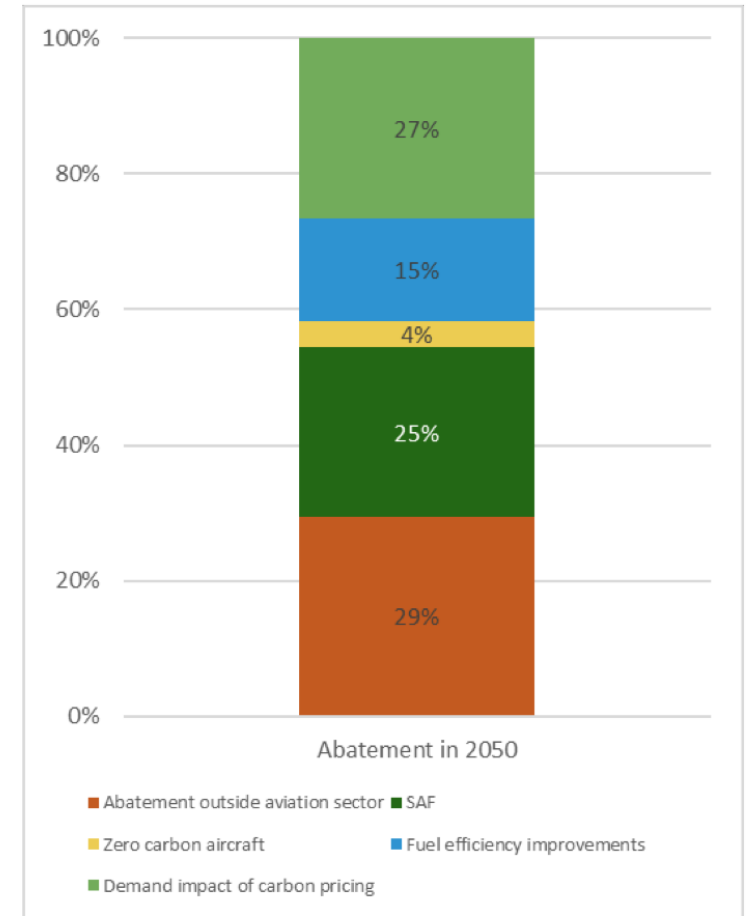
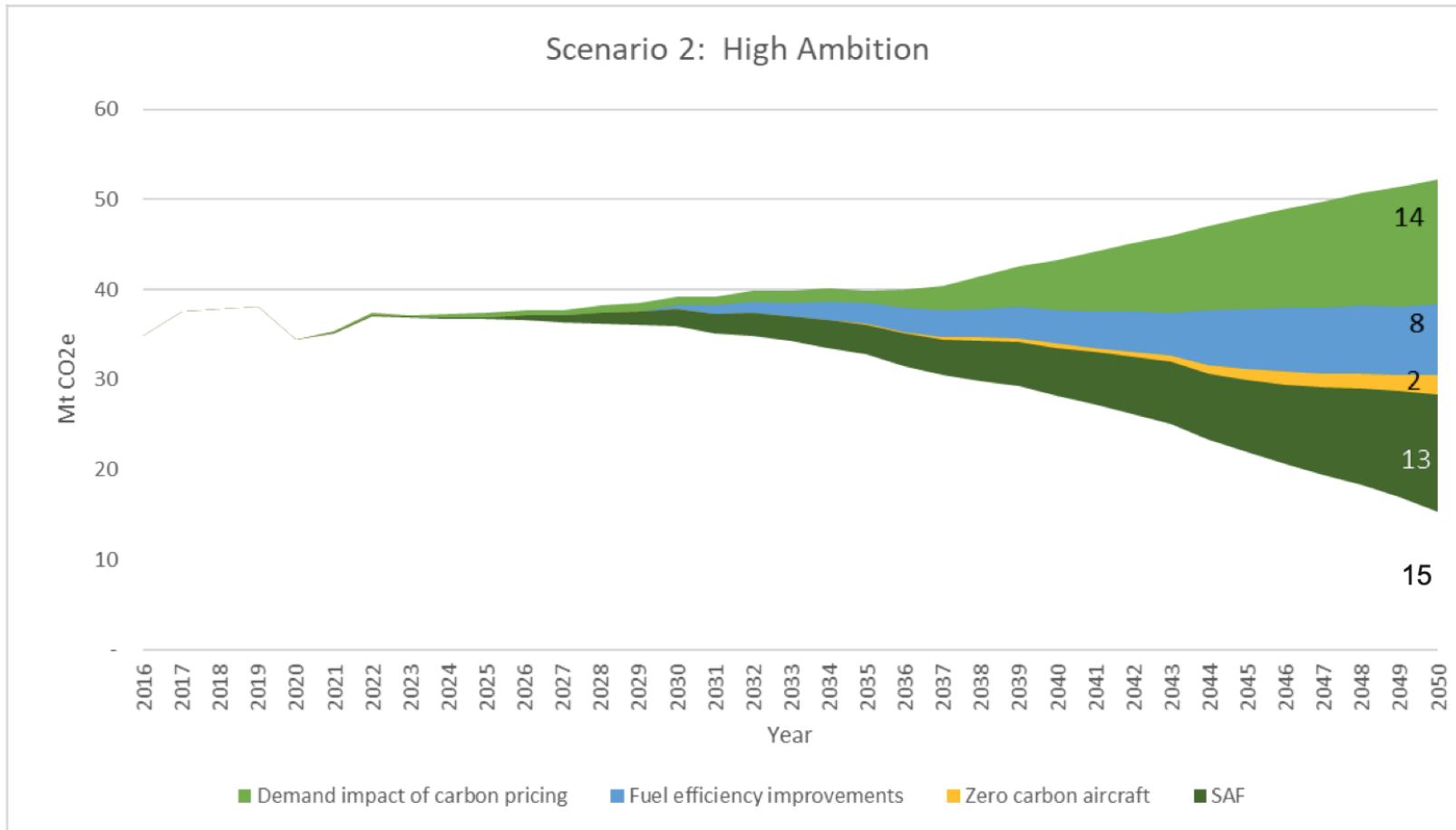


Figure 12. Global map of annual mean radiative forcing by contrails – (a) SW (mean -0.080 W m^{-2}), (b) LW (mean 0.143 W m^{-2}) – in logarithmic color scales.

Do strategies ask the right questions?



Jet Zero Strategy, Department for Transport, 2022



A high risk strategy

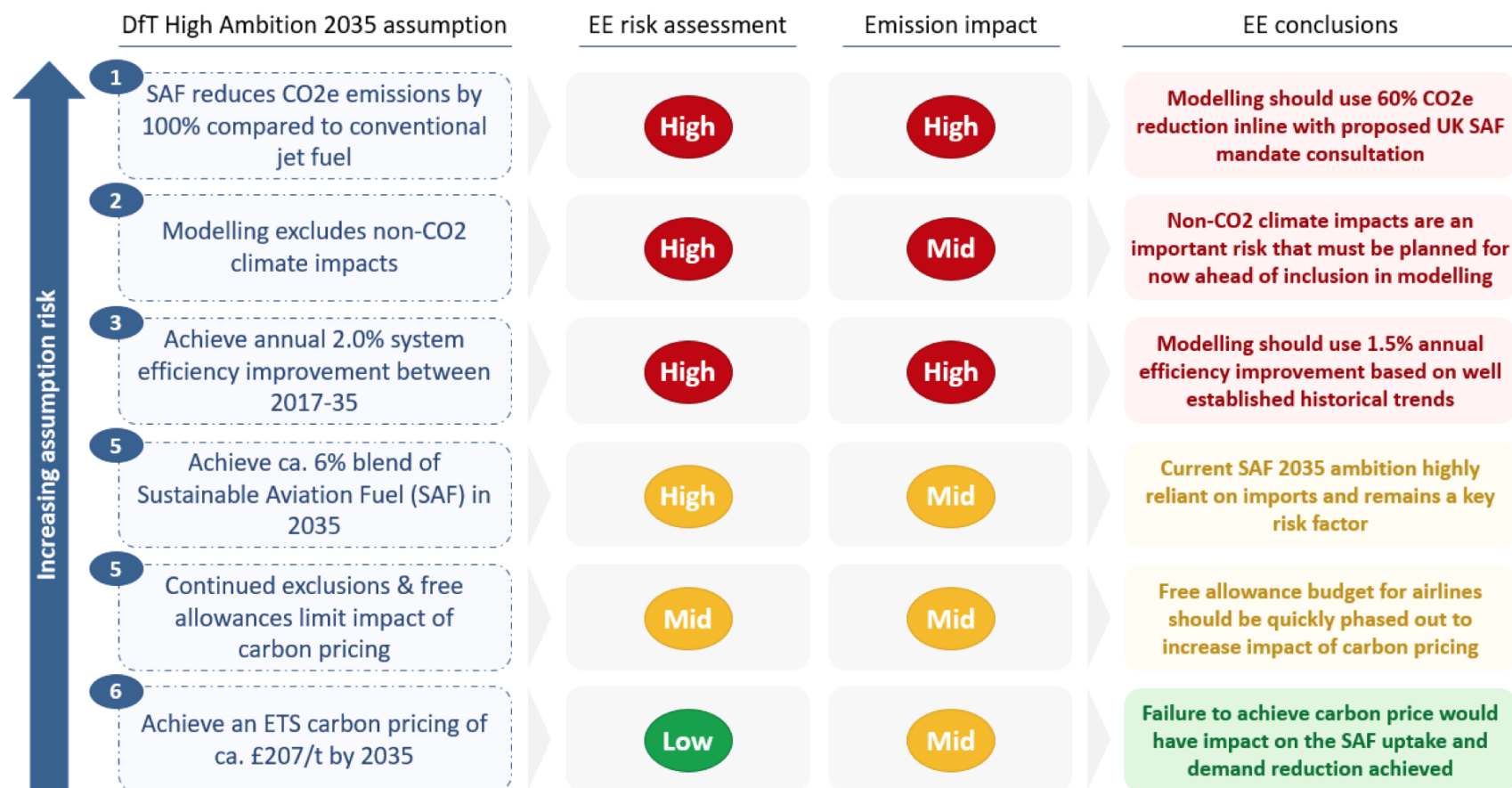


Figure 2: overall risk assessment of DfT High Ambition scenarios in 2035

The next big debate? Greenhouse gas removals



- Industry push for access to engineered removals and nature-based solutions
- Already getting attention in ICAO and at state level
- Scaling and cost are once again the big question marks but there are policy considerations: who gets access and how - market approach or controlled? how do you define permanence? GGRs or e-fuels?

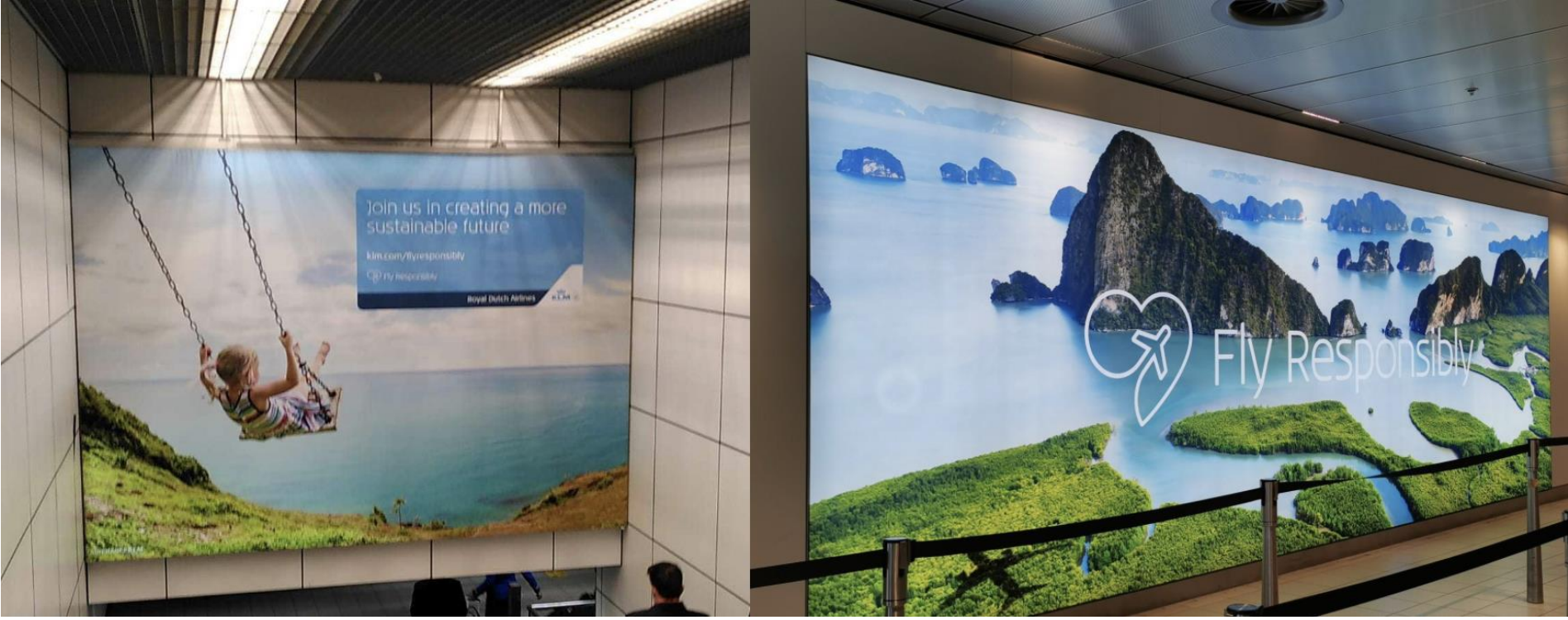


Demand – a case for limits

UK Climate Change Committee – statutory advisers to Government:

- To meet net zero by 2050, the growth in demand for UK air travel should be limited to 25% above 2018 levels
- Government and industry forecasting 50% and 75% growth over the same period
- No airport expansion until the Government introduces a capacity management framework and the industry outperforms its decarbonisation trajectory
- Upcoming test for the new government as London Luton and London Gatwick both have decisions pending in early 2025

And finally – greenwashing



Thank you



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