



Future air mobility scenarios and its environmental impact

**Are we on the
right path?**

**What are key
areas of action?**



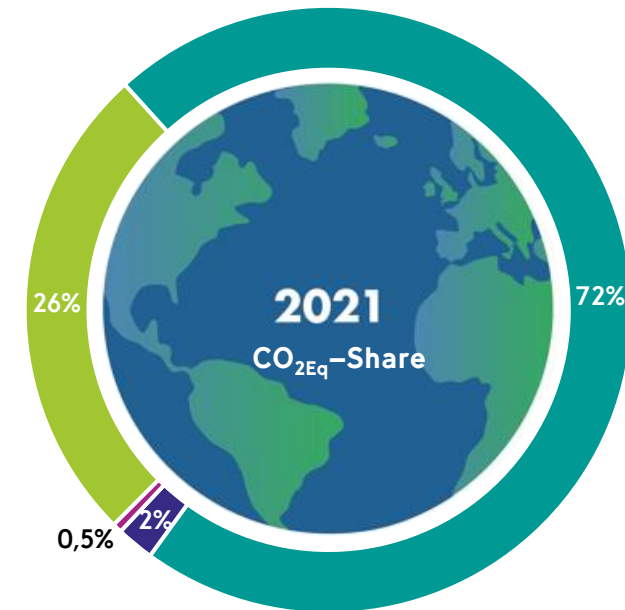
Air mobility in a nutshell.

Regional to Short-Haul

- ✈️📍 Range: 300–2000km
- 🕒 66% share on global PAX–fleet

Medium- to Long-Haul

- ✈️📍 Range: 2000–15200km
- 🕒 30% share on global PAX–fleet

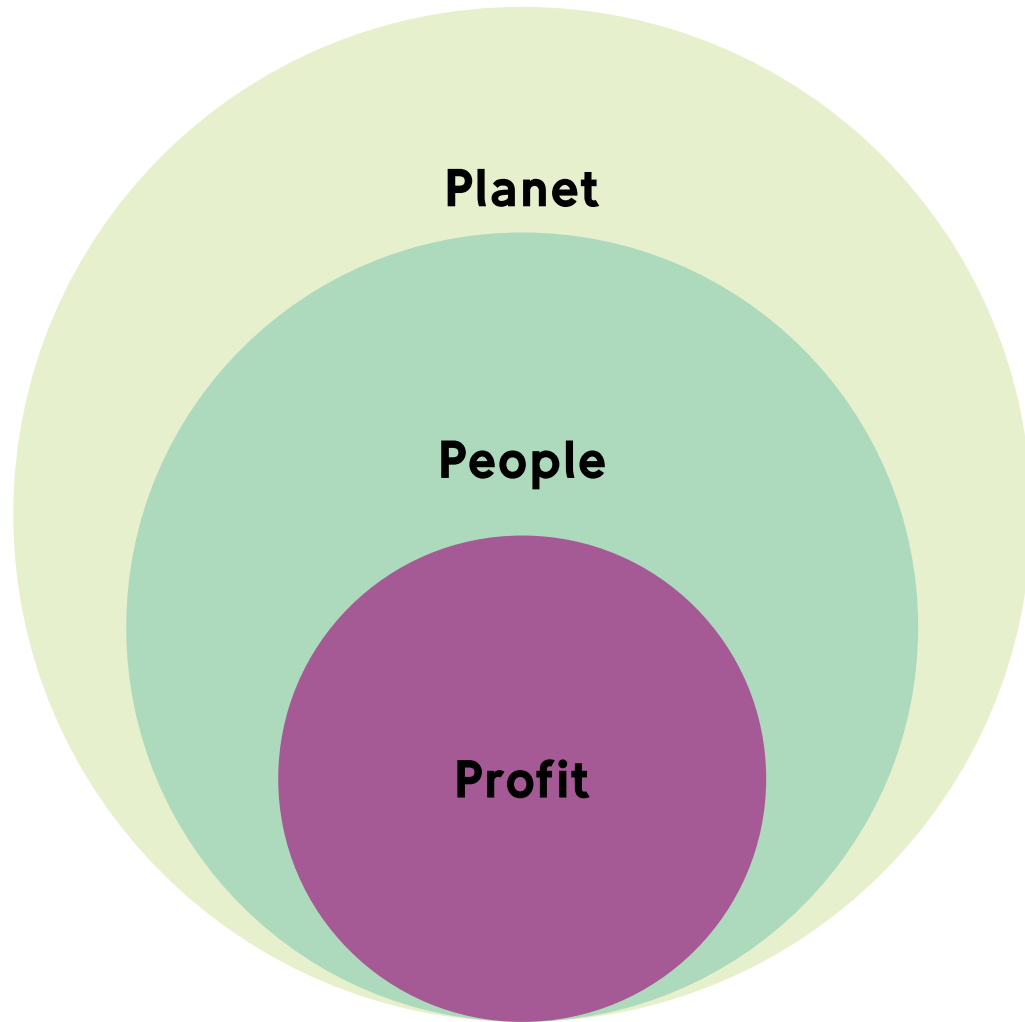


Urban air mobility

- ✈️📍 Range: <300km
- 🕒 4% share on global PAX–fleet

Cargo air traffic

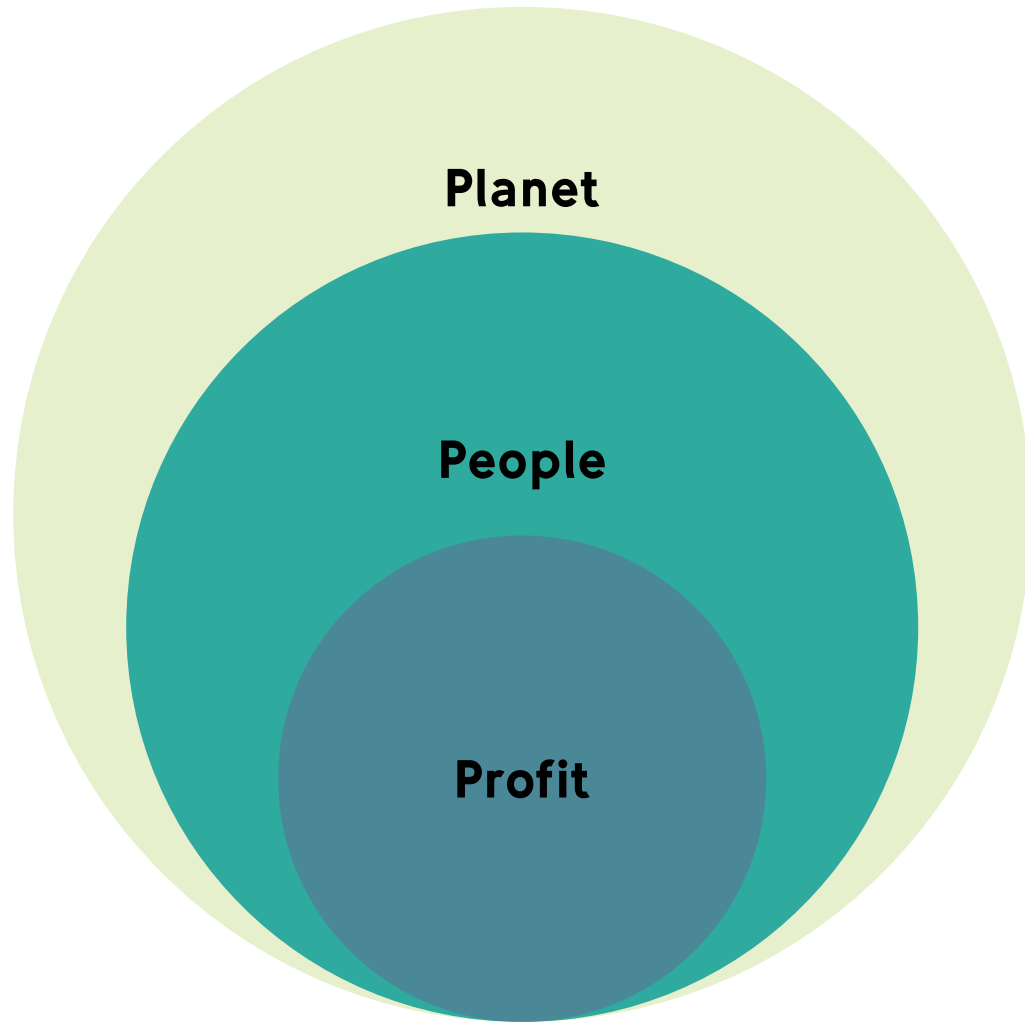
- 💰 35% of worlds trade by value
- 📊 <1% of worlds trade by volume
- 🕒 3% share on global traffic



35% in value of global trade

4.5Bn passengers in 2019

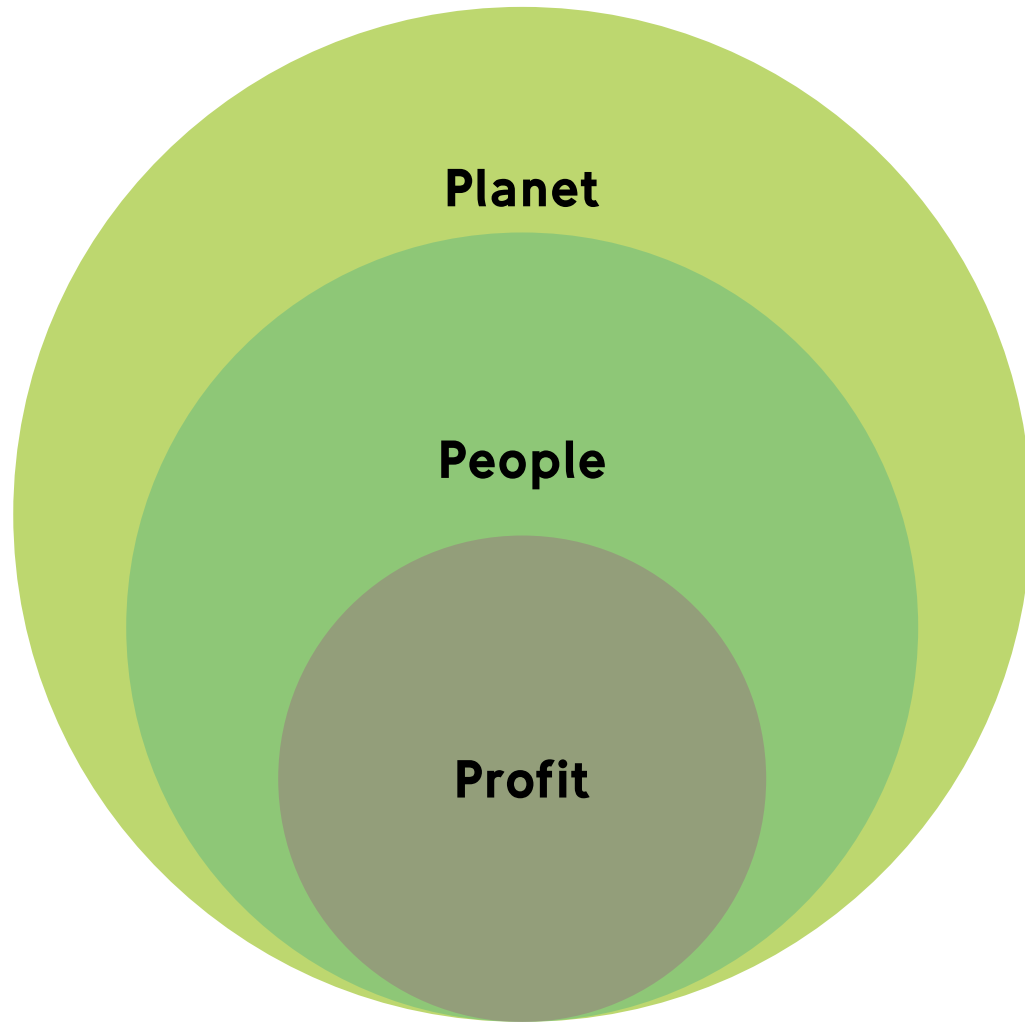
\$691Bn of GDP per year generated



68M people with jobs in aviation industry

62.5kt of humanitarian aid p.a.

400k patients transported to hospitals

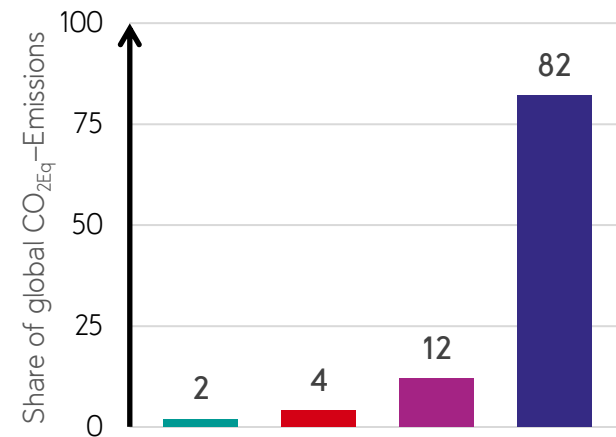
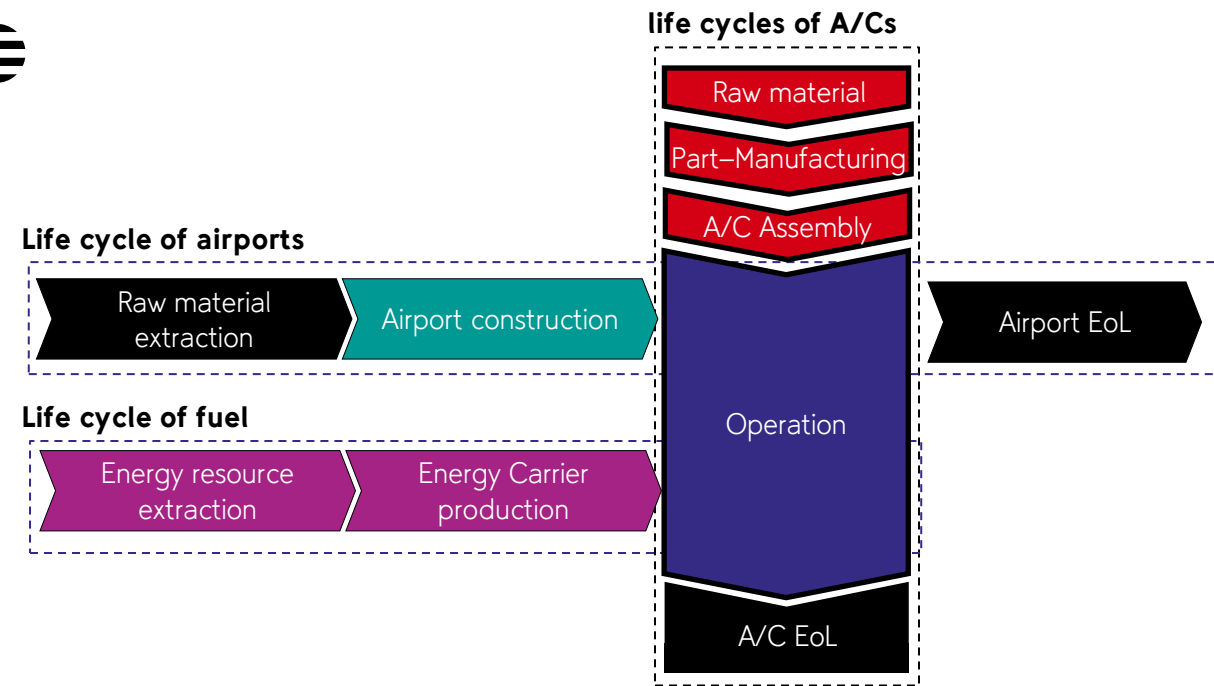


915M tonnes of CO2 in 2019 produced

1% frequent fliers resp. for 50% emissions

7,5% traffic decrease of p.a required (FF55 goals)

Industry revolution requires a holistic view in E2E aviation lifecycle





Technology-wise, there is no silver bullet for future scenarios

SAFs



- Already in use (Blending 50%) and green deal obliged increasing SAF-Share
- Balanced climate-neutral
- Applicable for all ranges & A/C
- Relies on renewable energy for production & cost decrease

Battery-electric



- Urban appl. in qualification
- In flight emission free
- Limited due to energy density on urban & regional
- Relies on renewable energy for recharging

Hydrogen



- In development
- Water vapor as emission
- Limited due to energy density & storage possibilities to Medium-Haul
- Relies on green hydrogen

Core Questions

1. How to identify green aircrafts?
2. How to create a completely new aviation infrastructure?
3. Is it feasible to ban aircrafts that run only on kerosene?
4. How to foster cross-industry collaboration to develop novel technologies and new transport networks?



Your experts



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