

PANEL DISCUSSION II: Alternative Propulsion

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Is there any alternative to Alternative Propulsion? This is the key question which was addressed in the Discussion Panel #2.

If aviation needs to reach carbon neutrality by 2050, aircraft emissions must be drastically reduced, and this includes both CO₂ and non-CO₂ effects. Several technology pathways are under investigation mainly through electrification and hybridization (with batteries) and with new fuels such as hydrogen (through direct burn or fuel cells) or SAF.

The panel was composed of several industry members (Andrea Milli – GE, Uwe Hessler – RR, Ondrej Kotaba – Honeywell) and representatives of academia and research centers (Andreas Strohmayer - EASN and Marcello Amato - CIRA).

A lively discussion was held around the environmental impact and the technical challenges of those solutions, including certification aspects and the roadmap to ground and potentially flight demonstration of these concepts.

The exchanges led to conclude that it is too early to select one technology pathway versus another, simply because there is still too much derisking involved and this is why the maturity progress must continue. Certification is a critical aspect as well as it may have critical impact on system architectures.

The panel discussion did not address policy framework and regulatory measures, nor the aspects of investments and readiness of infrastructure and supply chain for an EIS in 2035, but it was concluded that there is no alternative than to continue exploring all these alternative routes to decarbonize aviation.