



## Defossilising Aviation with e-SAF

### Webinar

Agora Verkehrswende and International PtX Hub

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Agora  
Verkehrswende

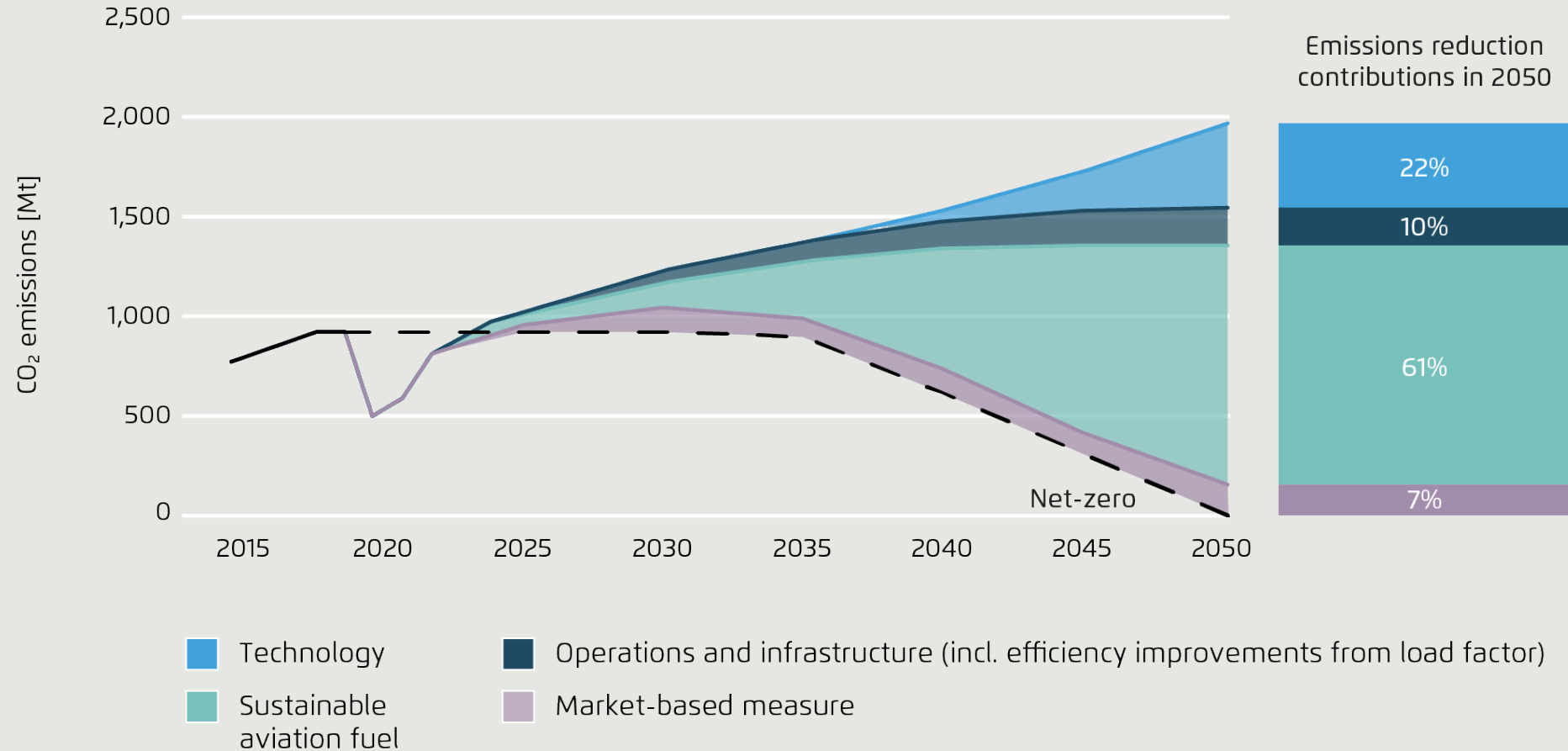


# Defossilising aviation with e-SAF

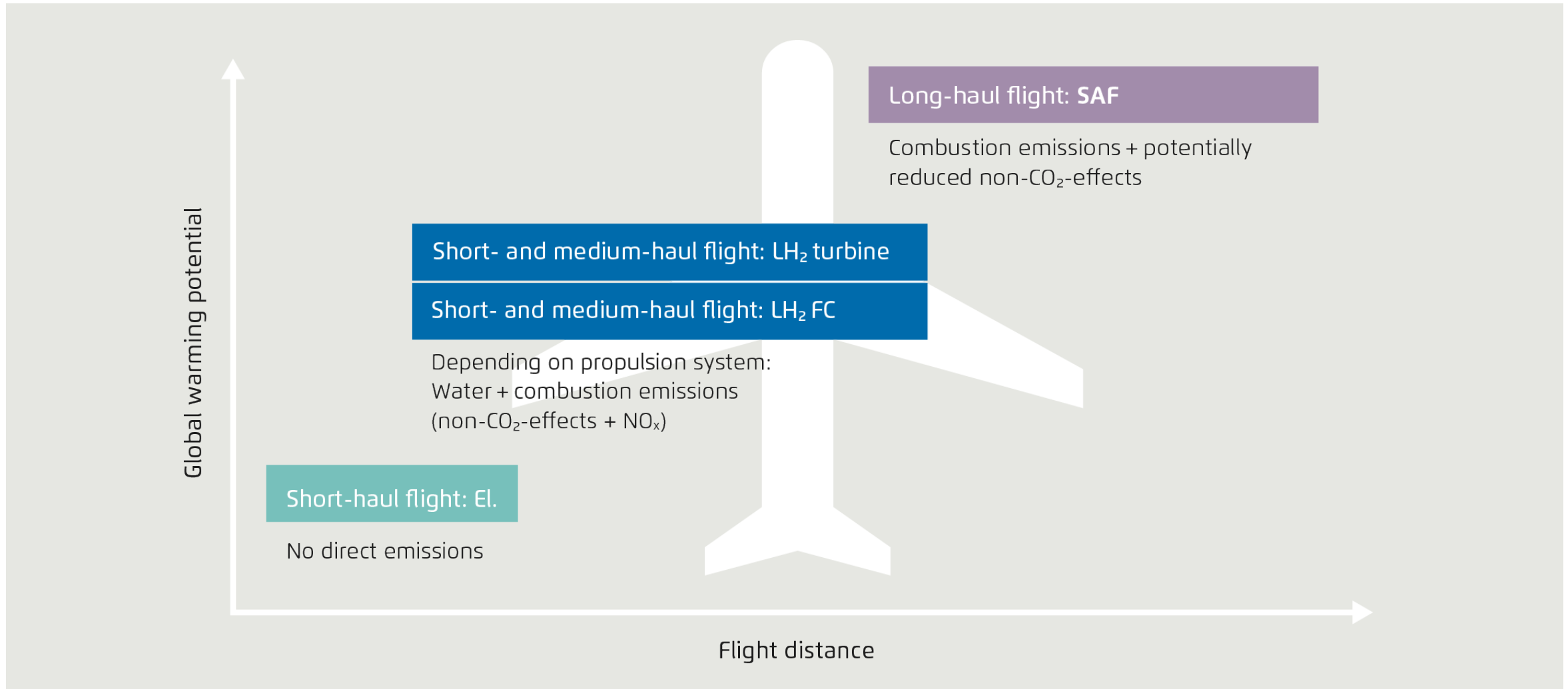


- Analysis on the current state of the e-SAF ramp up in aviation
- Collaboration between International PtX Hub and Agora Verkehrswende
- Now available for download

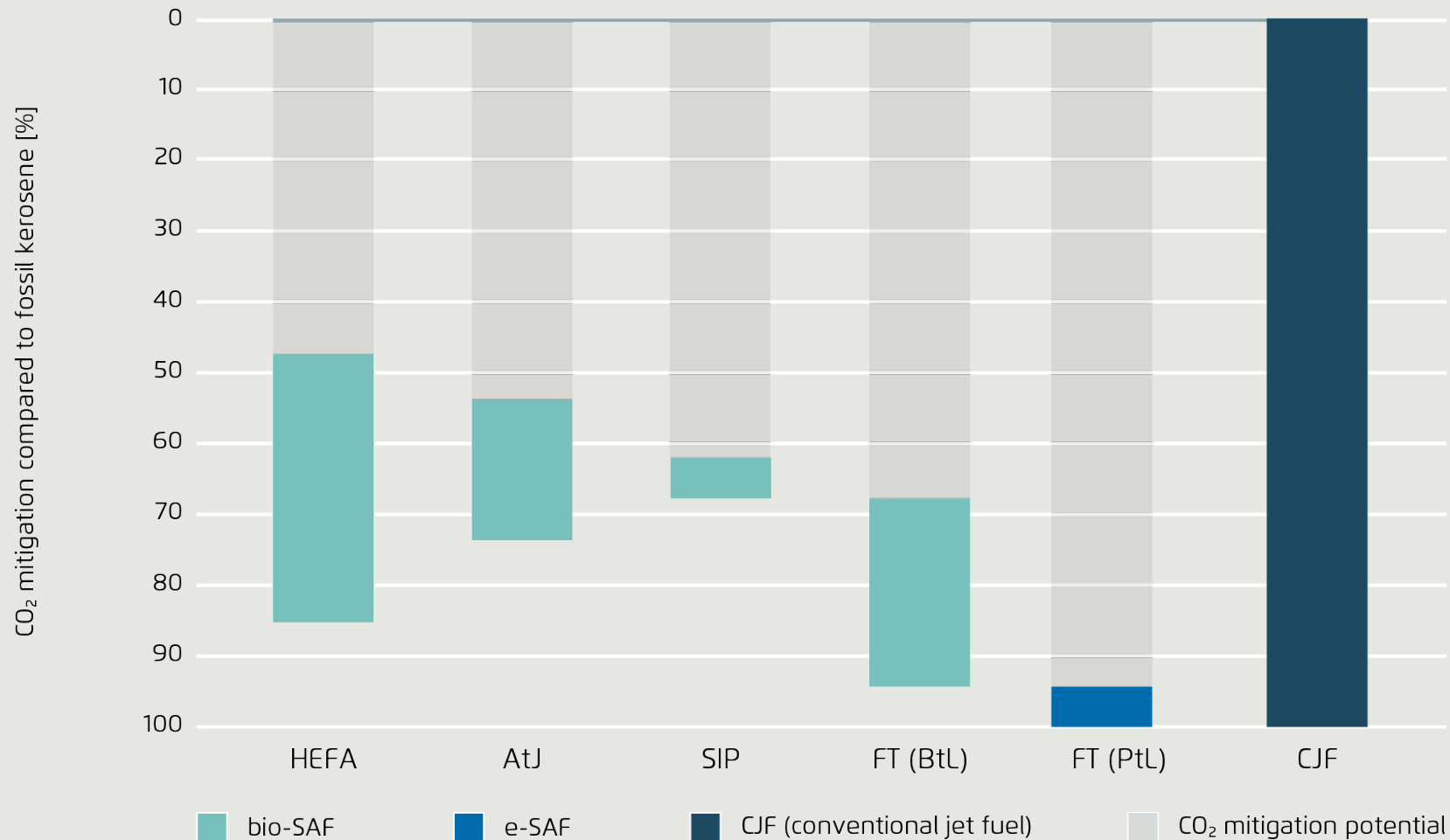
# Options for achieving the emission reduction goals of the international aviation industry



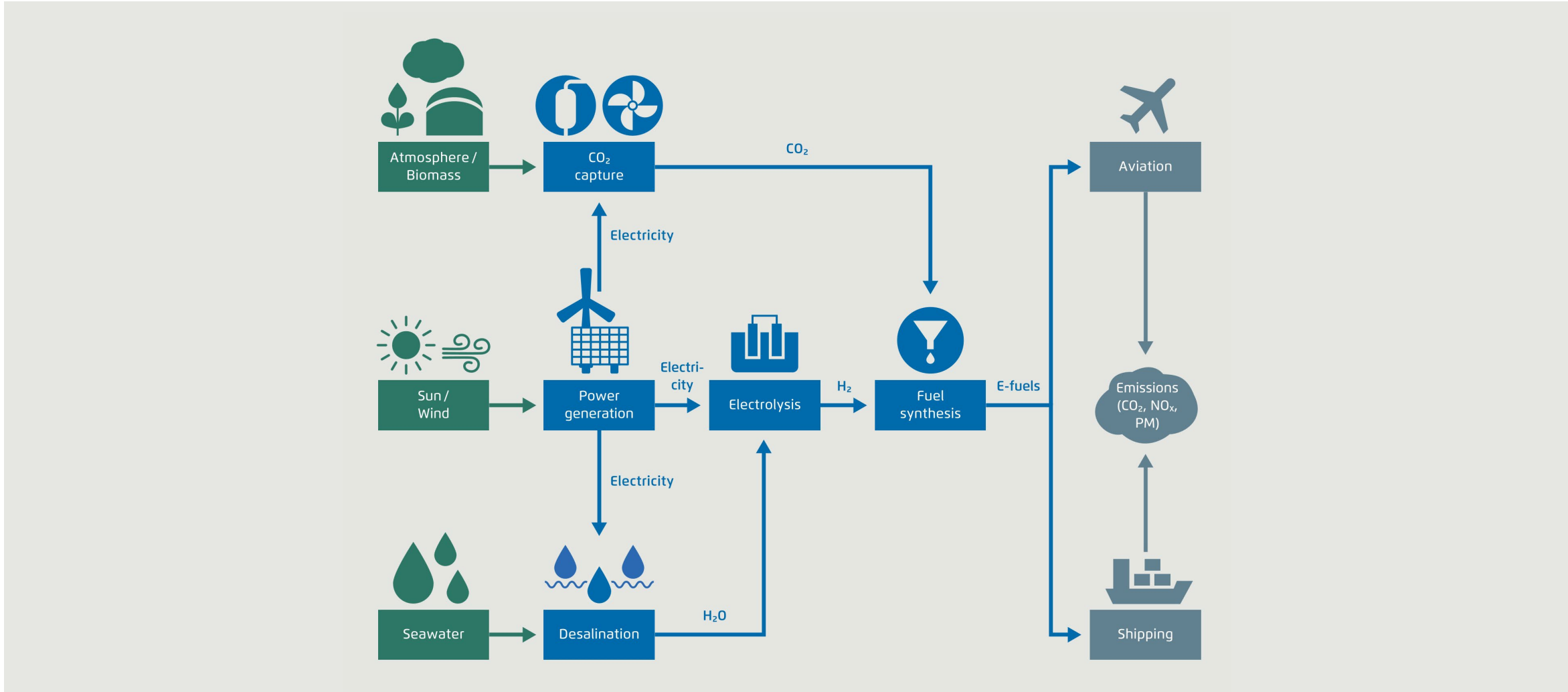
# Propulsion and energy transition options for aviation and their climate impacts



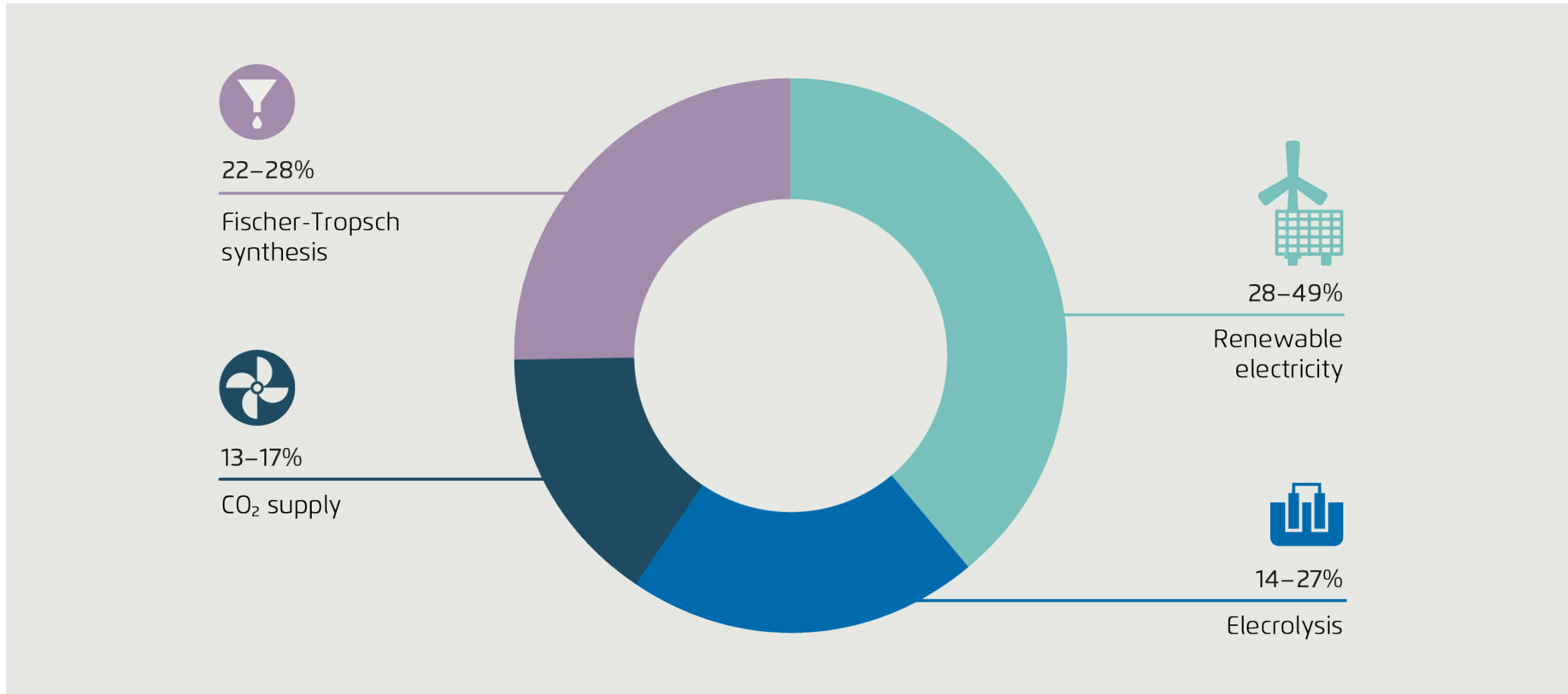
# CO<sub>2</sub> mitigation potential of different SAF types compared to fossil kerosene



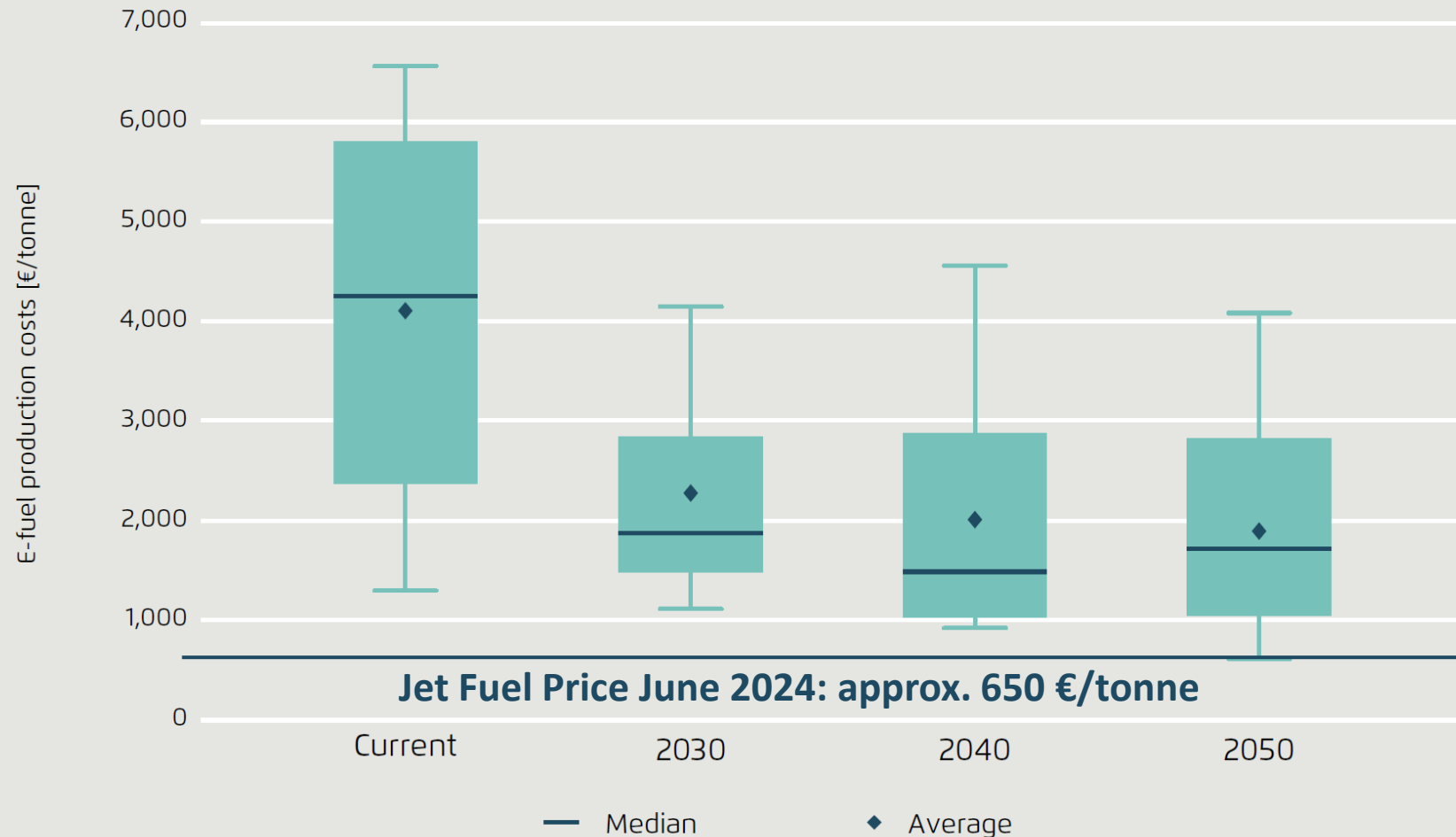
# Targeted e-fuels production for aviation and shipping



# Capital expenditures and operating costs as an averaged share of e-SAF production costs

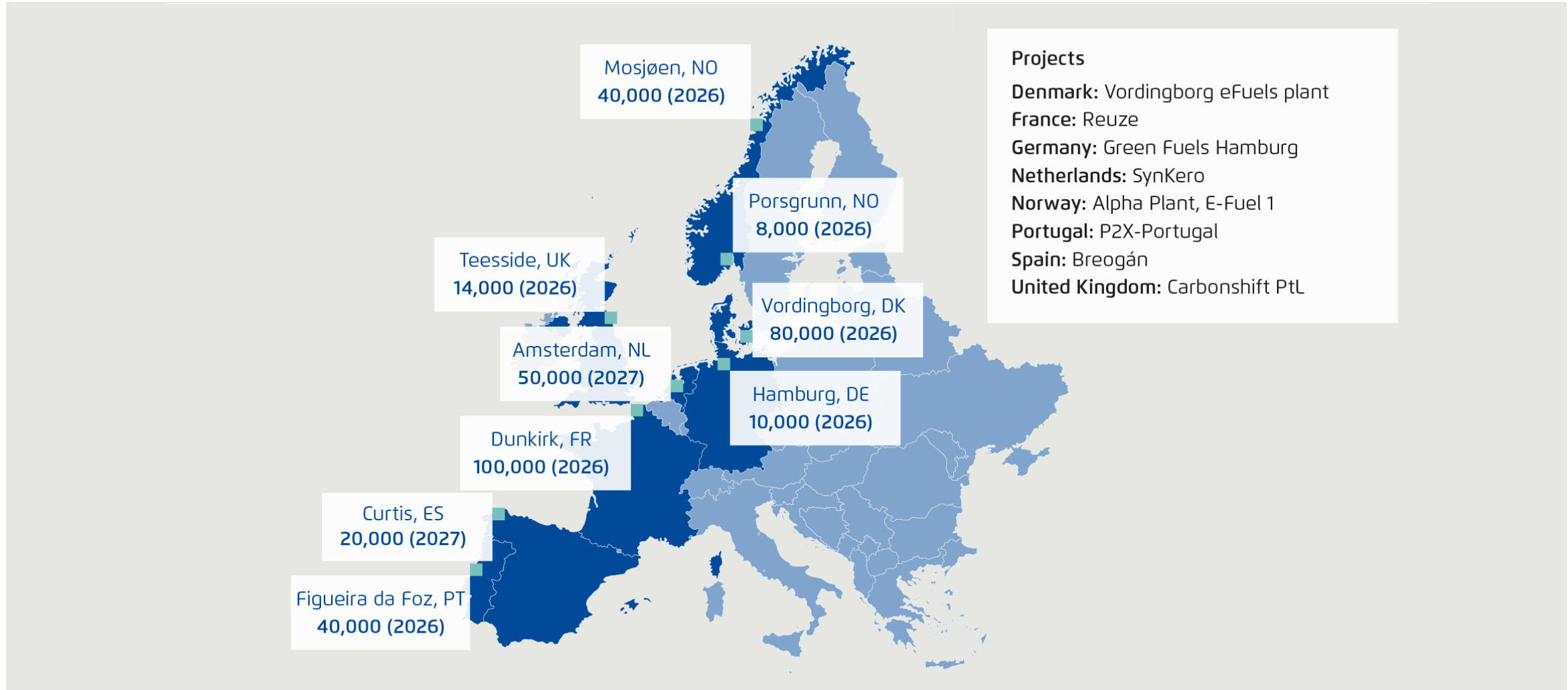


# E-SAF production costs: Projected ranges including median values





# First industrial e-SAF projects announced in Europe

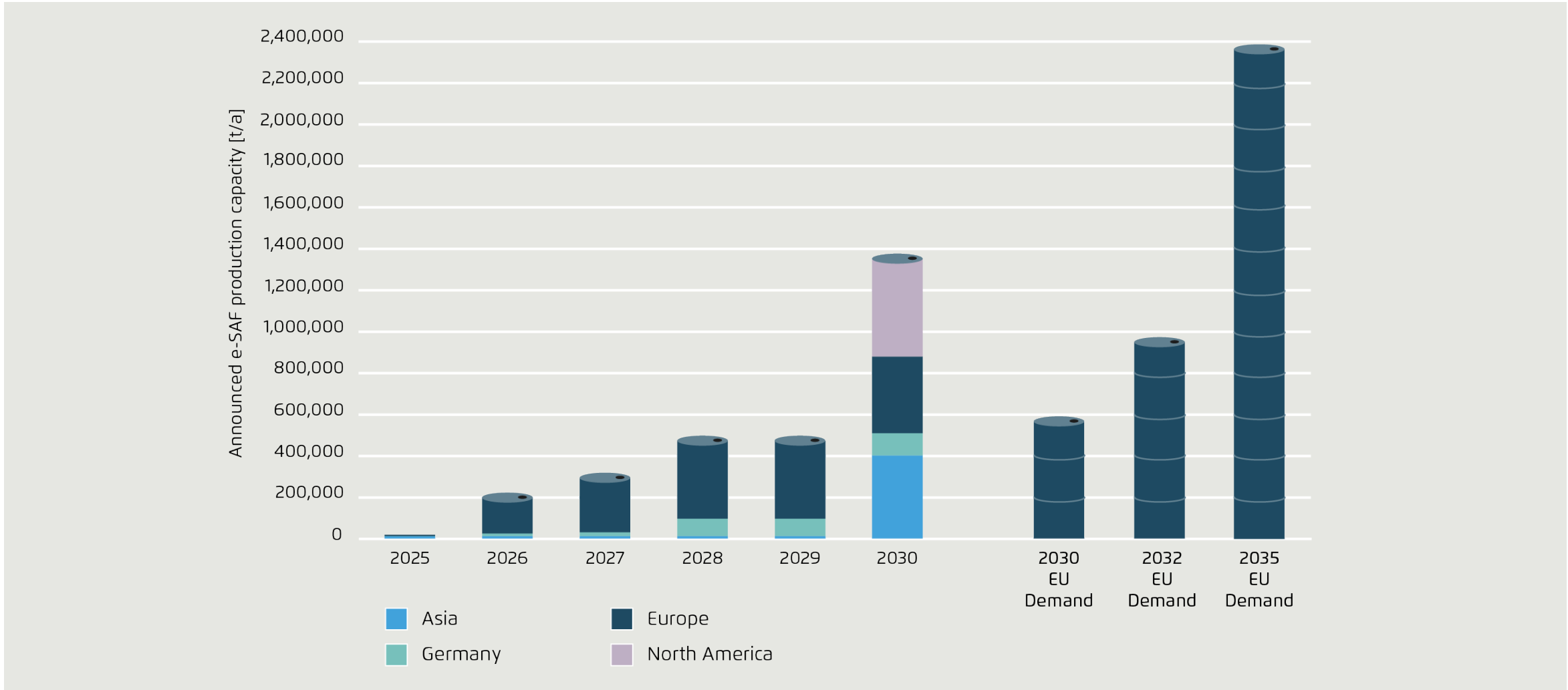


# Overview of policies in place of relevance to e-SAF ramp-up in selected jurisdictions



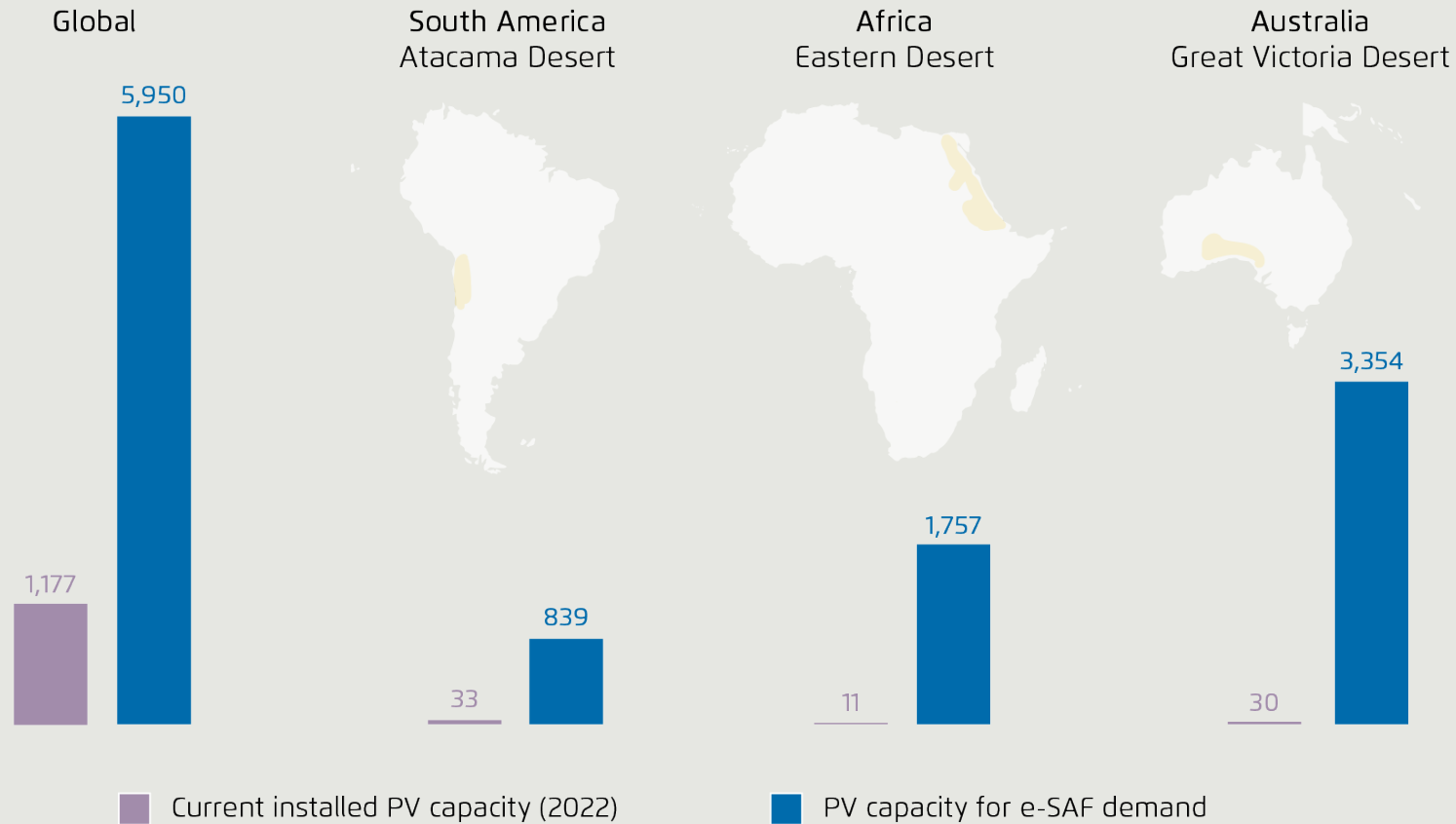
	Framework for sustainable e-SAF production	Blending mandate for e-SAF that applies to fuel suppliers	Carbon pricing mechanism that includes aviation	Binding CO <sub>2</sub> emission reduction obligations for aircraft operators
ICAO	Yellow	Grey	Green (a)	Grey
European Union	Green	Green	Green	Grey
Germany	Green	Green	Green	Grey
USA	Grey	Grey	Grey	Grey
UK	Green	Yellow	Green	Grey
Japan	Grey	Grey	Yellow	Grey
Brazil	Grey	Grey	Grey	Yellow
India	Grey	Grey	Grey	Grey
South Africa	Grey	Grey	Green	Grey

# Anticipated global e-SAF production capacity up to 2030 and ReFuelEU Aviation demand

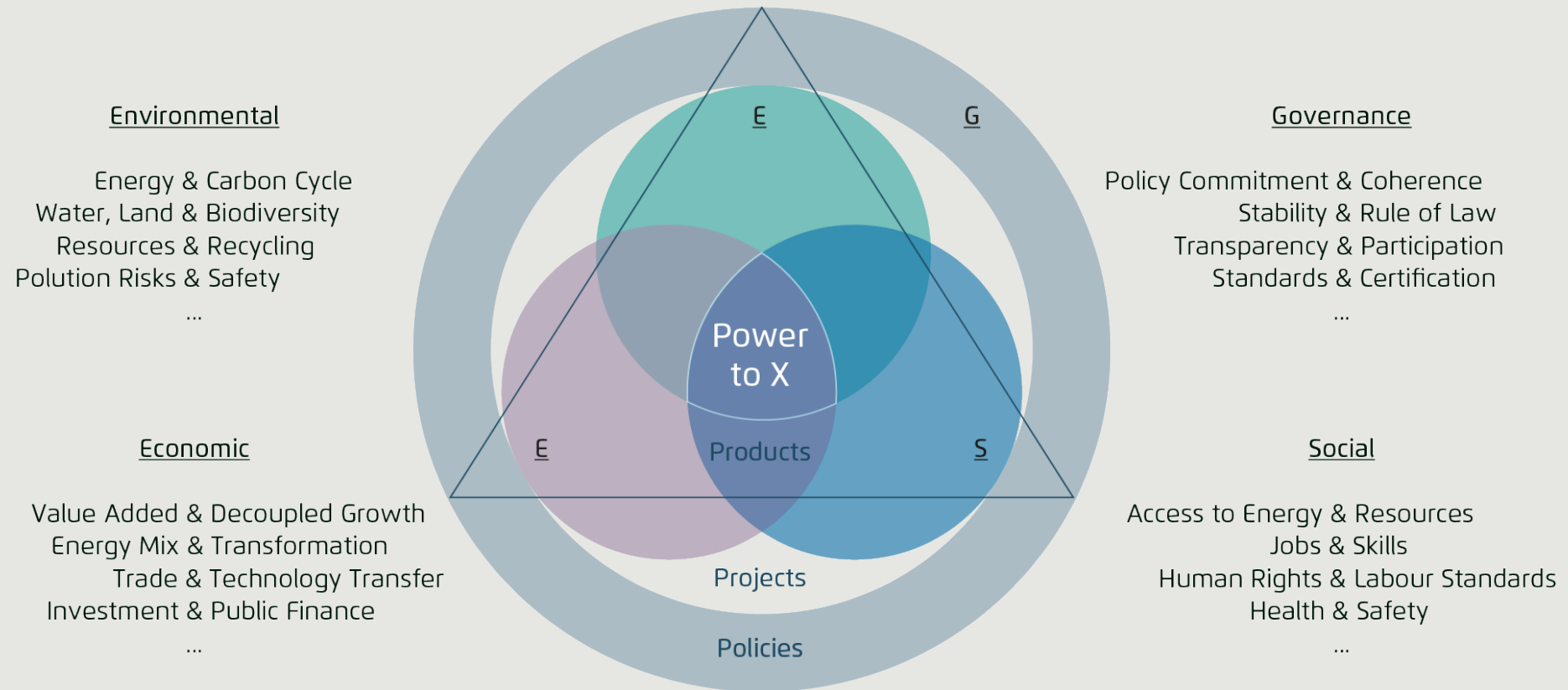


# Required PV capacity to fully substitute the global jet fuel demand with e-SAF






In GW, compared to current PV capacity, globally and split up among continents with typical sweet spot regions (indicated here by selected deserts), share in required capacity proportionate to share in global land area



# Combining sustainability dimensions of PtX production: The EESG framework



# Key Takeaways

-  The current system of fossil fuels is not a viable option for the future, and SAF will be indispensable for advancing climate protection in aviation.
-  Policymakers across the globe should facilitate a market ramp-up of e-SAF by adopting suitable political and regulatory frameworks.
-  The development of comprehensive sustainability criteria for e-SAF – and not just for hydrogen – is essential for their socially and environmentally sound production and use.
-  Once the political frameworks for e-SAF are in place, it will fall to industry and investors to rapidly expand the supply of e-SAF.
-  A sole focus on “sweet spot” regions that offer particularly beneficial conditions for e-SAF production is insufficient; rather, an overarching strategy that addresses all major dimensions of e-SAF production is needed.

## Thank you!

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