



2024 ICAO LTAG STOCKTAKING

7 ——— 10 OCTOBER 2024

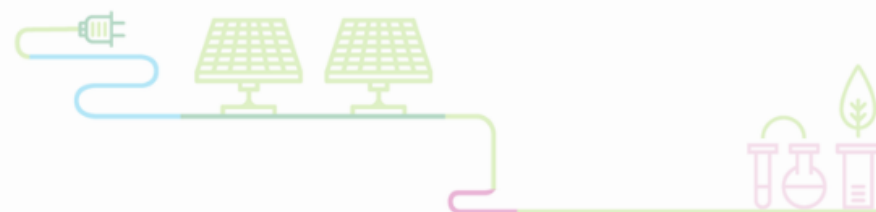


Camilo Pabon-Almanza

Advisor – Sustainable Transport and
Global Outreach

International Transport Forum (ITF)

Session 8: Implementation support - Part 2:
Challenges and opportunities in achieving the
LTAG



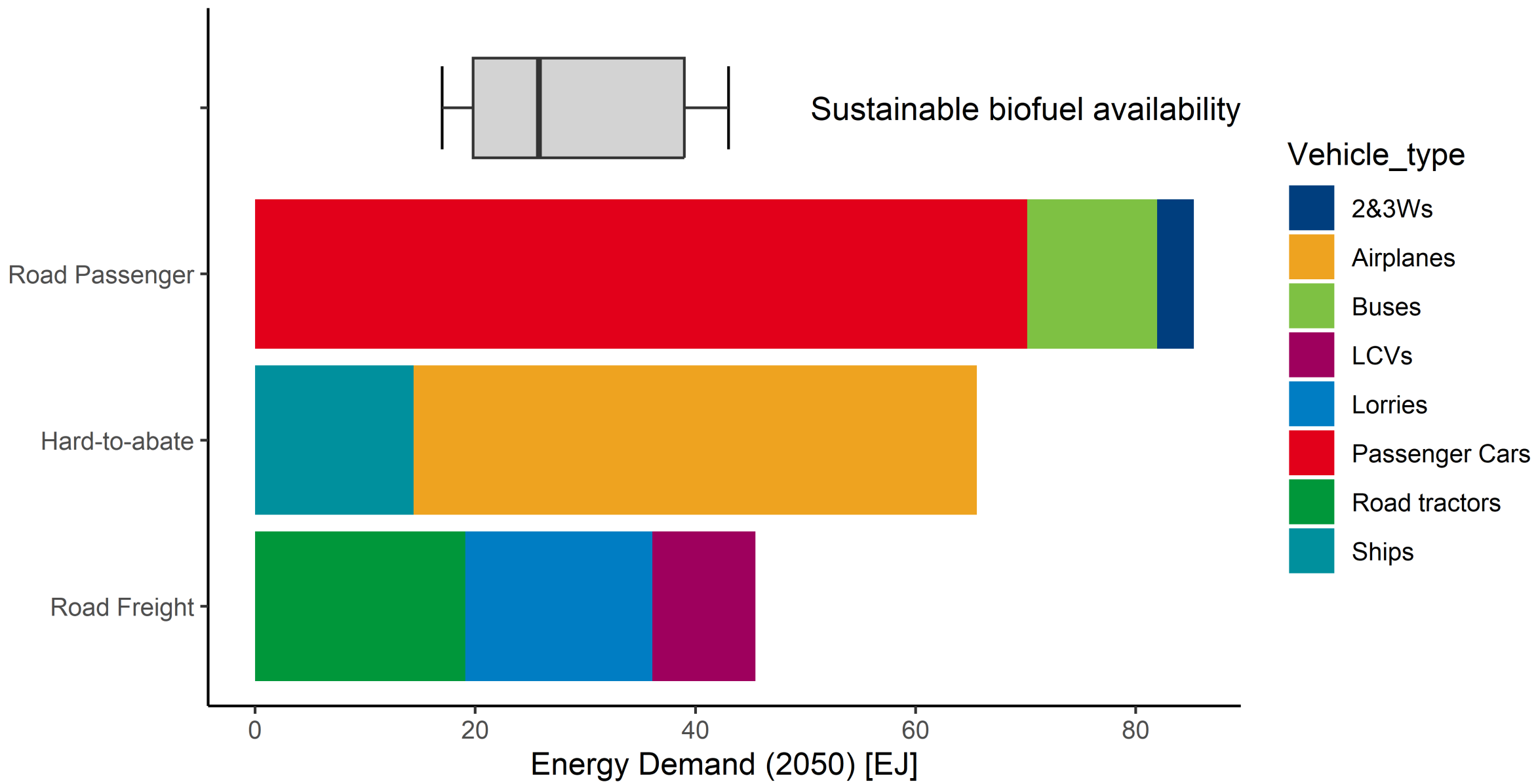
A merit order that reduces uncertainty for aviation

Camilo PABON-ALMANZA

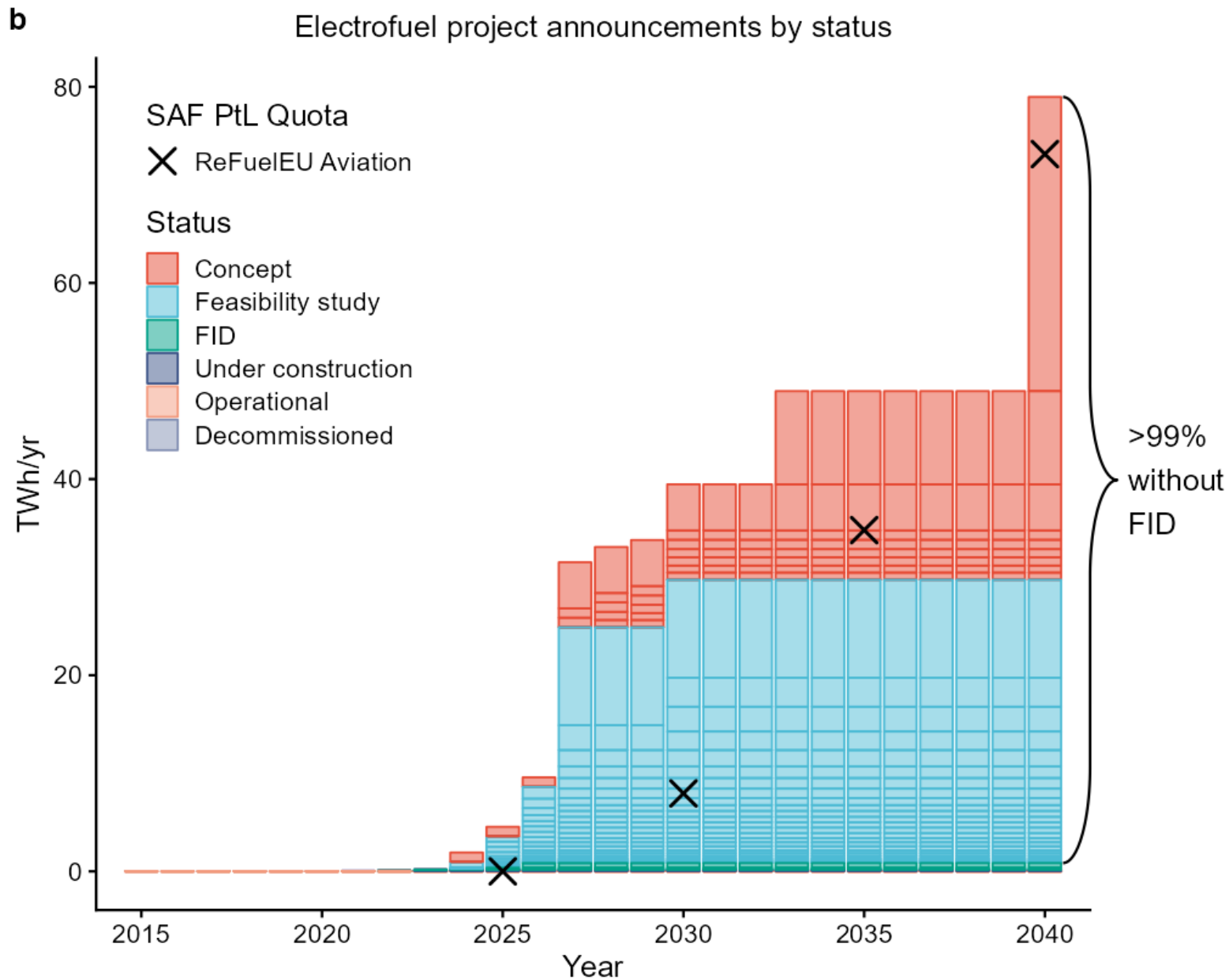
10 October 2024



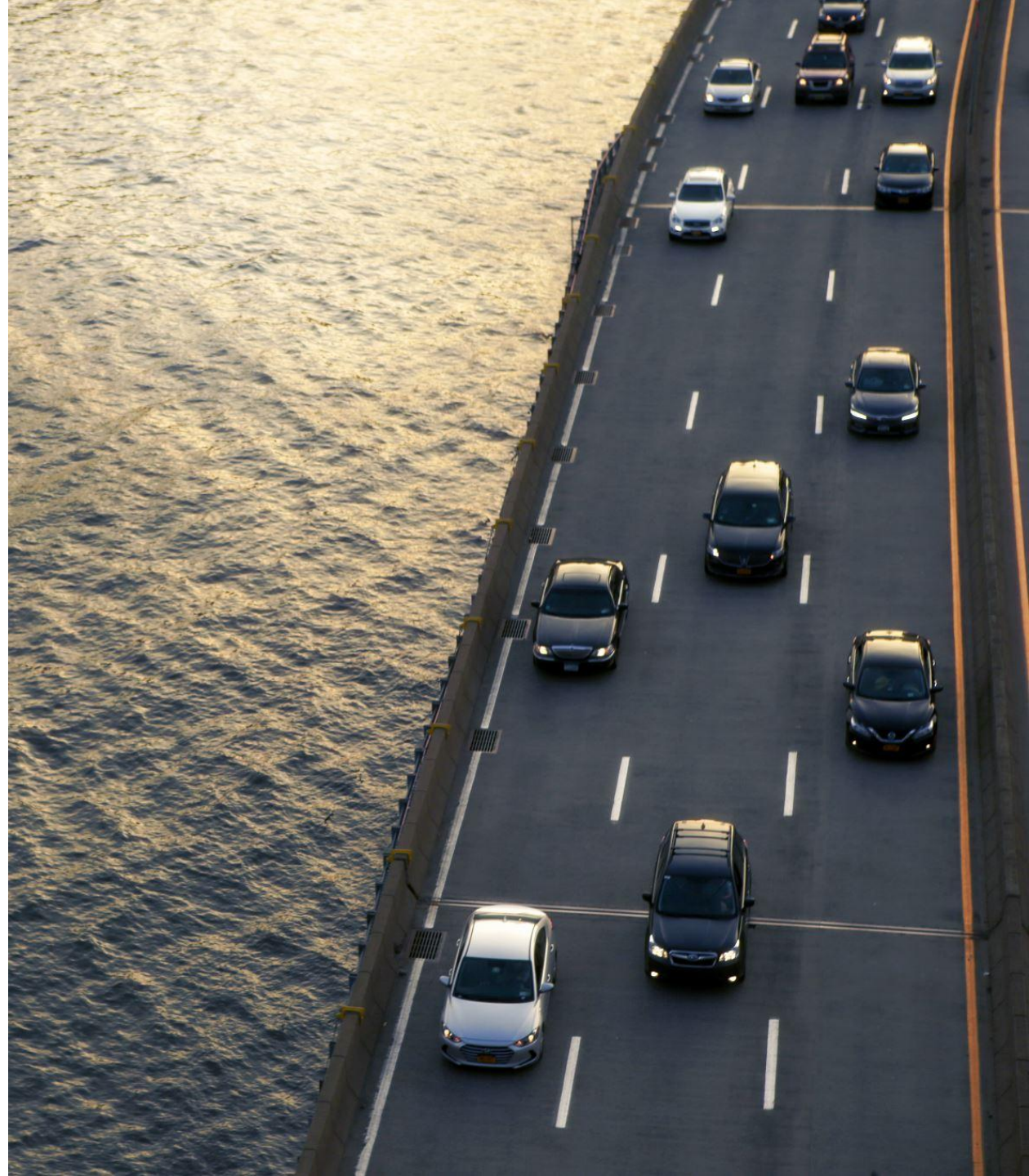
**01 Uncertainty
persists on SAF's
availability**

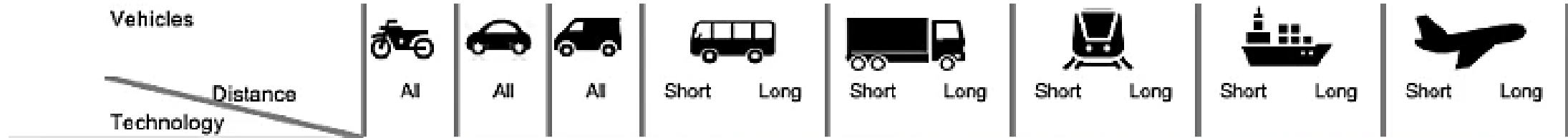


► **99% of all projects for electrofuels have not obtained final investment decision (FID)**



02 Risk of misallocation of scarce resources





Eletrification (batteries)

Eletrification (electrified networks)

Biofuels in use today



Advanced biofuels

E-Fuels



Natural Gas
Biogas
Biomethane



Decarbonised synthetic hydrogen and hydrocarbons

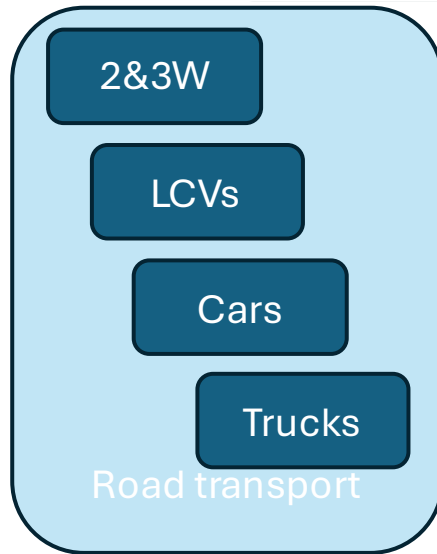
- High Priority (technically feasible, suitable, economically competitive)
- Low Priority (technically feasible but not very suitable, economically suboptimal)
- Not a Priority (subject to major technical restrictions, limited economic competitiveness)
- Uncertain (at present, subject to technical and economic restrictions albeit with a considerable potential, research is necessary)

| Technology | Motorcycle | | Car | | Van | | Bus | | Truck | | Train | | Ship | | Airplane | |
|--|------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------|--------|----------|--|
| | AI | All | All | Short | Long | Short | Long | Short | Long | Short | Long | Short | Long | Short | Long | |
| Electrification (batteries) | Green | Green | Green | Green | Blue | Green | Blue | Green | Blue | Green | Blue | Green | Red | Blue | Red | |
| Electrification (electrified networks) | Red | Red | Red | Green | Blue | Yellow | Blue | Green | Green | Red | Red | Red | Red | Red | Red | |
| Biofuels in use today | Red | Red | Red | Red | Red | Red | Red | Red | Red | Red | Red | Yellow | Red | Yellow | | |
| Advanced biofuels | Yellow | Yellow | Yellow | Yellow | Yellow | Yellow | Yellow | Yellow | Yellow | Yellow | Yellow | Green | Green | Green | | |
| E-Fuels | Yellow | Yellow | Yellow | Yellow | Yellow | Yellow | Yellow | Yellow | Yellow | Yellow | Blue | Blue | Blue | | | |
| Natural Gas Biogas Biomethane | Yellow | Yellow | Yellow | Yellow | Yellow | Yellow | Yellow | Yellow | Yellow | Yellow | Yellow | Yellow | Red | Red | | |
| Decarbonised synthetic hydrogen and hydrocarbons | Yellow | Yellow | Yellow | Yellow | Blue | Yellow | Blue | Yellow | Blue | Yellow | Blue | Blue | Blue | | | |

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03 A merit order that
reduces uncertainty
for aviation





High priority

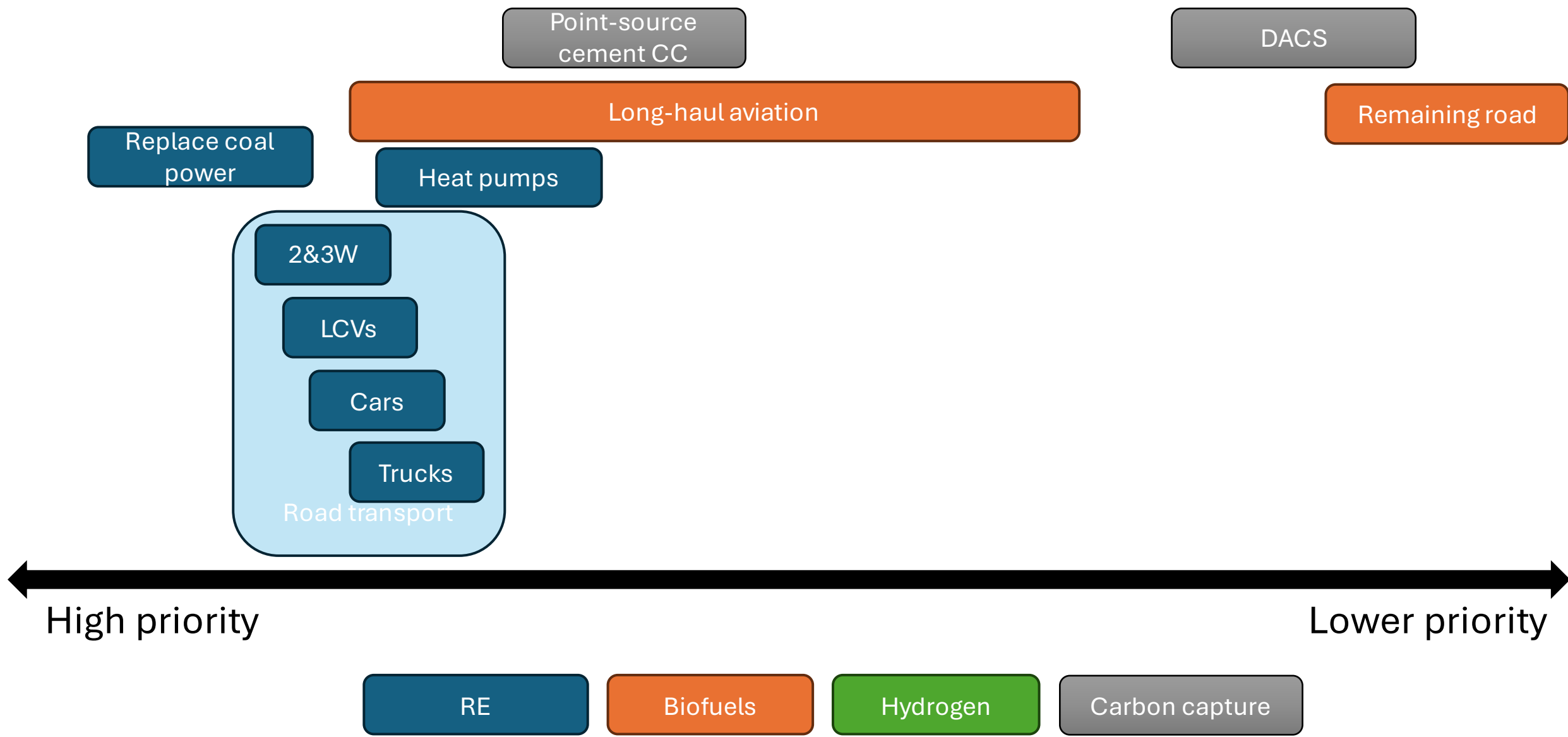
Lower priority

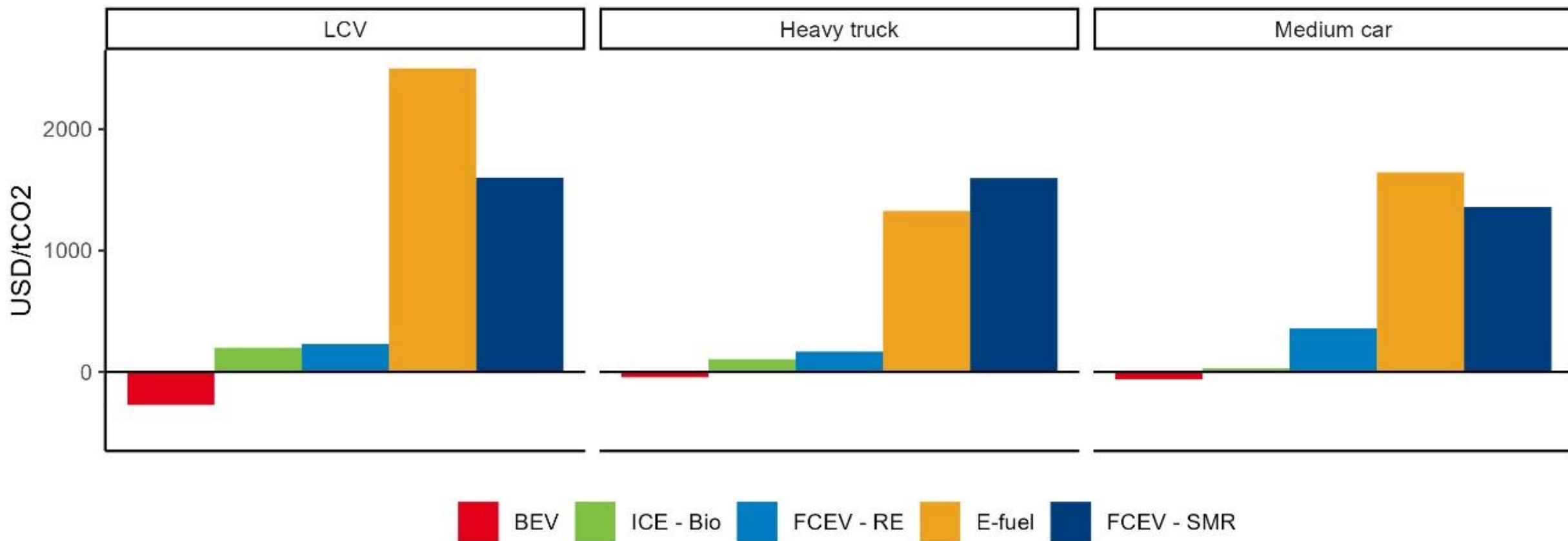
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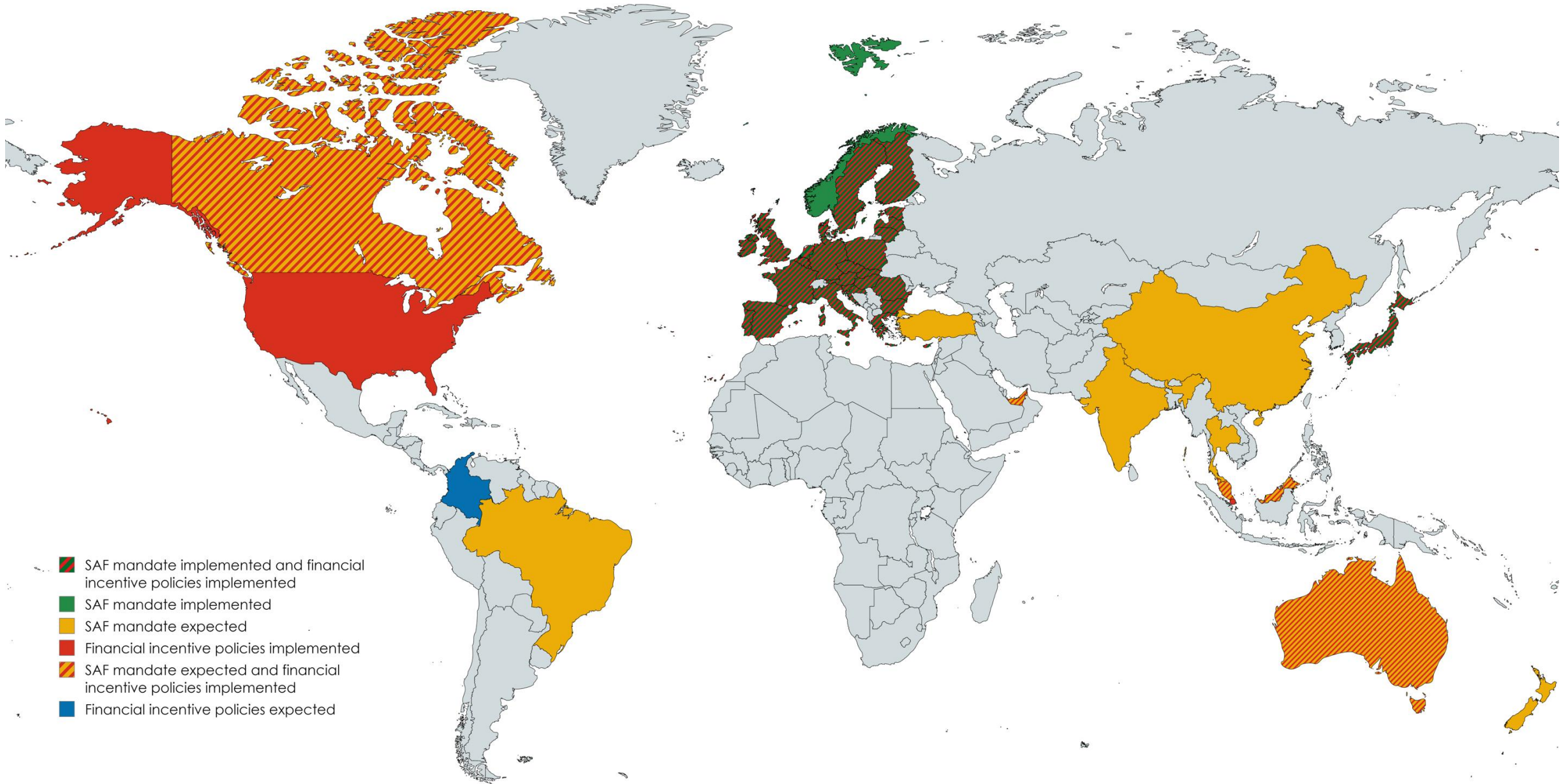
Biofuels

Hydrogen

Carbon capture







Corporate Partnership Board



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