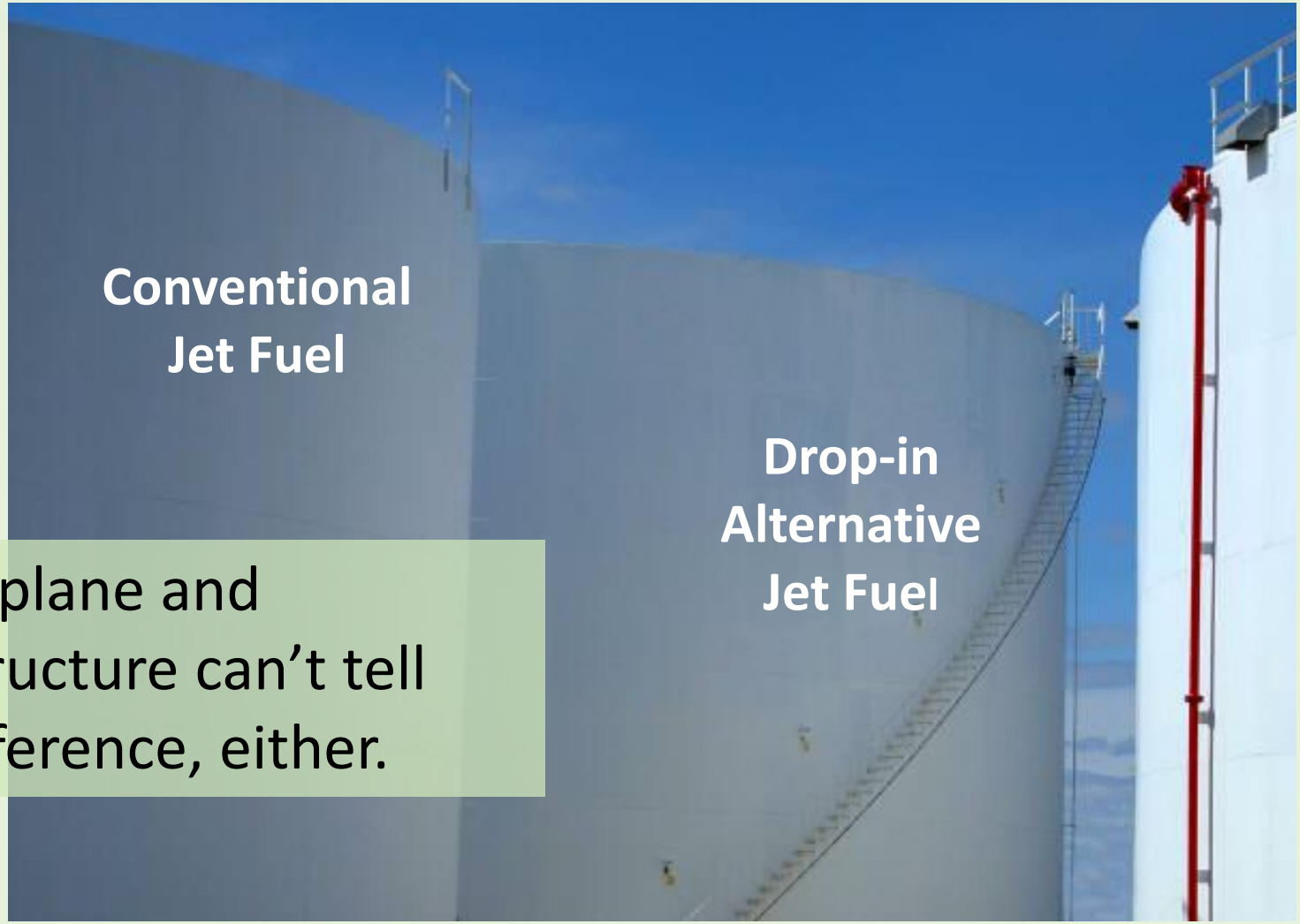
Sustainable Alternative Fuels for Aviation

ICAO Environment Branch

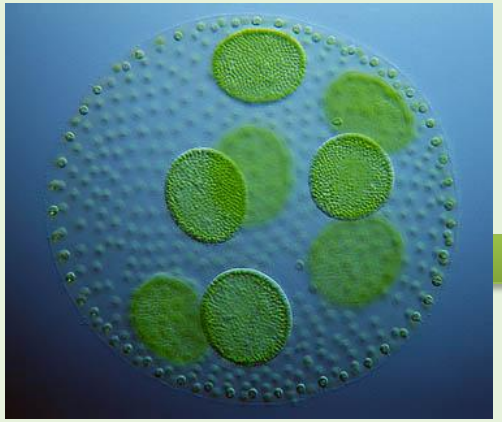
Drop-in Alternative Fuels



The airplane and infrastructure can't tell the difference, either.

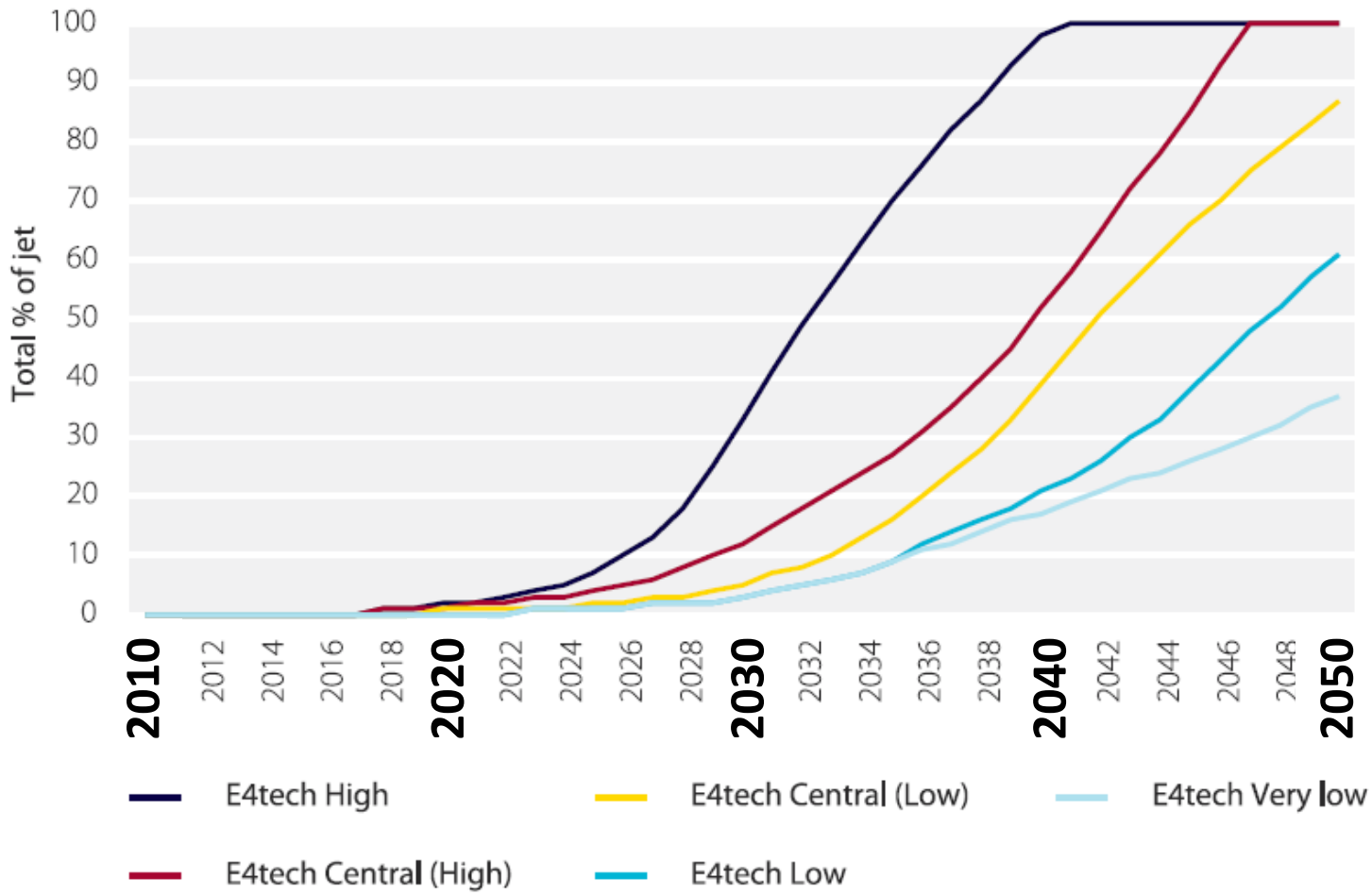
The Sustainable Alternative Fuel Difference

- **Local Air Quality Improved (less SOx and PM)**
- **Lifecycle CO_2 Reduced**



Algae

Availability of Alternative Fuels



Source: E4tech (2009).

ICAO's Role

ICAO is a FACILITATOR

- Outreach
- Information exchange
- International collaboration
- Broader view
- **Globally**

ICAO's Activities

International Civil Aviation Organization

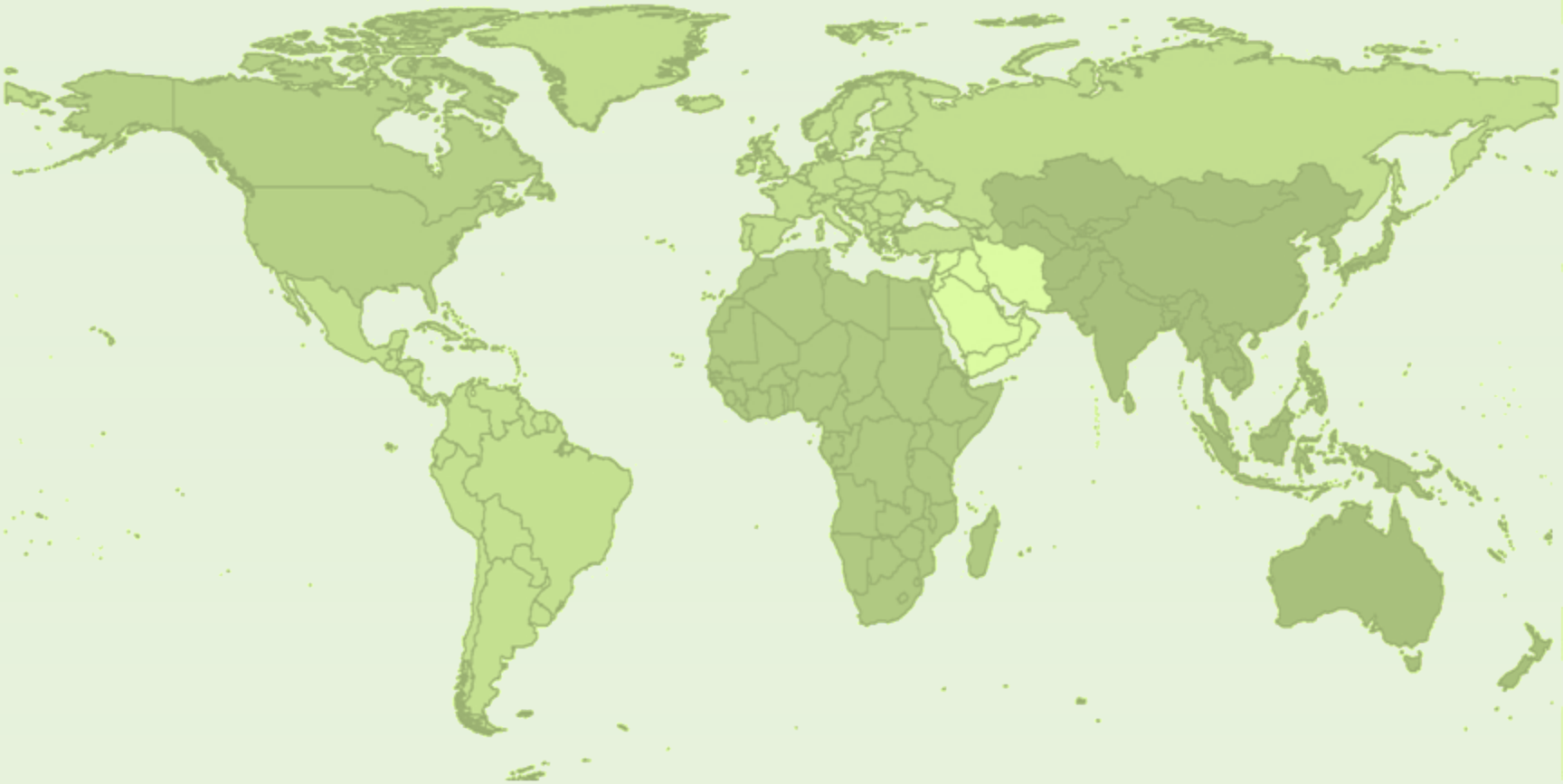
Assembly - 36th Session

Workshop

Conference

Global Framework for Aviation and Alternative Fuels

Initiatives in every region of the world



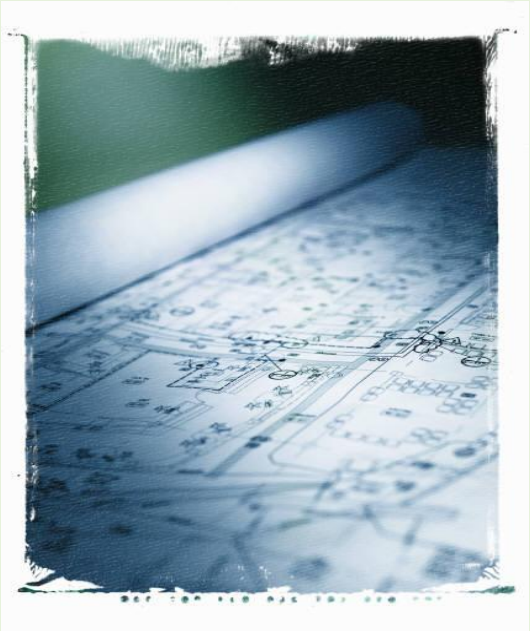
Consortia and Initiatives

www.icao.int/AltFuels

ASTM D7566

- "Standard Specification for Aviation Turbine Fuel Containing Synthesized Hydrocarbons"
- First new jet fuel certification in 20 years
  - Fischer-Tropsch fuels
  - Structured to accommodate future types in annexes
  - Hydrotreated Renewable Jet (HRJ) approval underway

From Research to Reality



Challenges

- Financial assistance and incentives

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Development and deployment

- Regulatory frameworks

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Ensure availability

Win-Win

- Local Air Quality and Climate Change benefits ✓
- Stabilize supply and fuel prices ✓
- Create new markets and employment ✓
- No change to existing infrastructure ✓

Sustainable Alternative Fuels are a key element for addressing aviation's contribution to climate change.

More information

To find out more:

- ICAO Alternative Fuels website www.icao.int/AltFuels
- Report of the ICAO Conference on Aviation and Alternative Fuels (Doc 9933) - Nov. 2009
- ICAO Environmental Report 2010, Chapter 5