



CMK

CENTRE FOR
ENVIRONMENTAL SCIENCES



UHASSELT

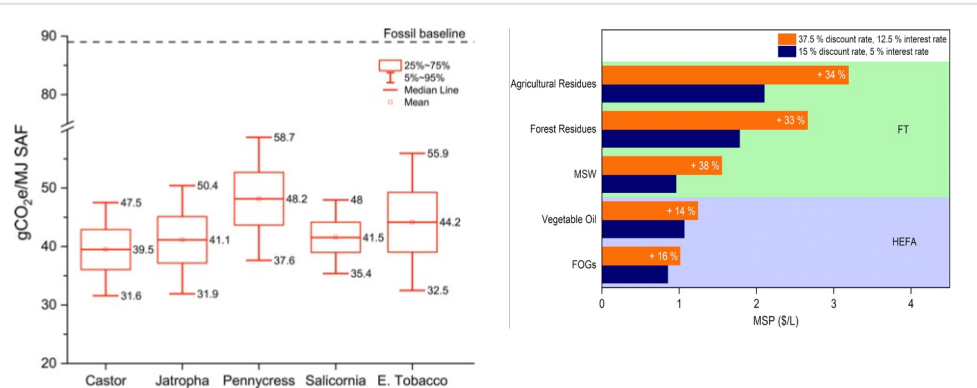
SAF Global Stocktake: Production vs. Planning towards Net Zero 2050

Robert Malina

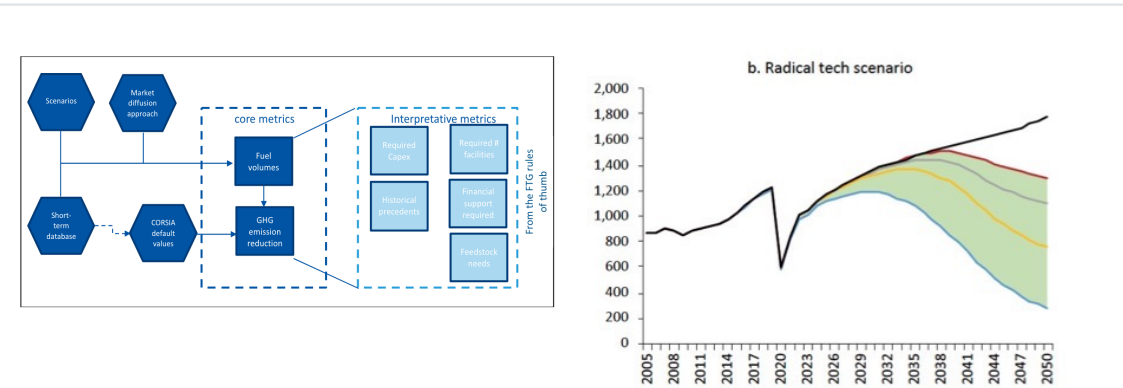
June 24, 2025

AIREG Conference, Berlin

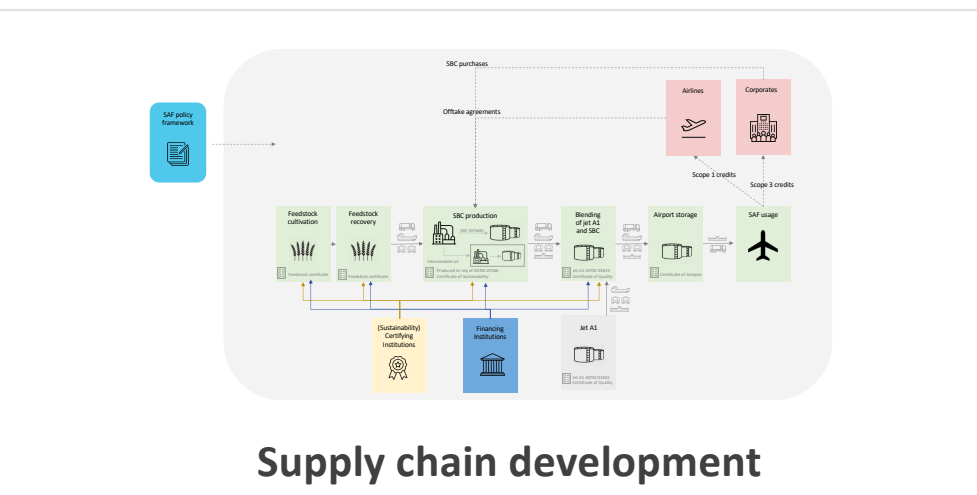
What we do in the space of SAF



SAF-specific economics & environmental impact



Availability projections & decarbonization contribution



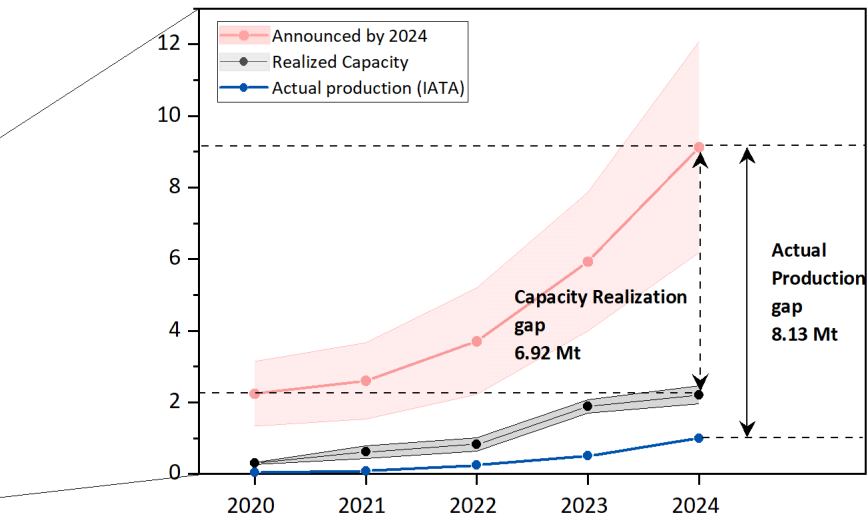
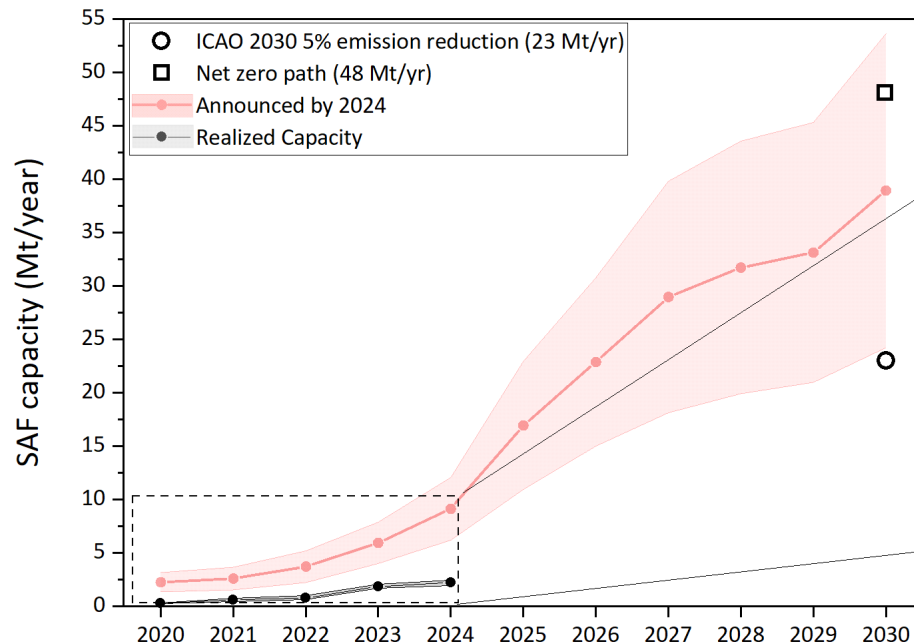
Supply chain development



Climate regulation development & deployment

SAF scale-up is not fast enough

GLOBAL DATA

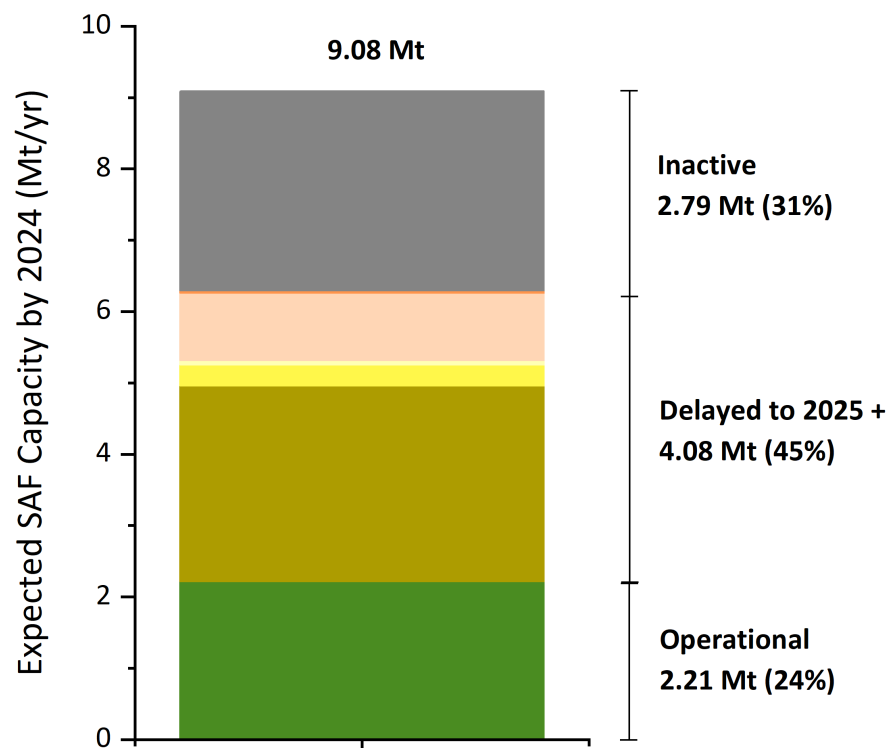
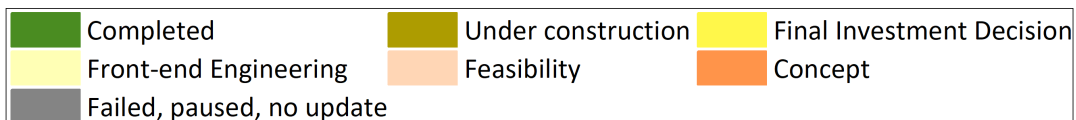


Source: UHasselt analysis of SAF announcements.

Martulli, Alessandro; Malina, Robert (2025). Sustainable aviation fuels (SAF) projects realization gap and state. figshare. Figure. <https://doi.org/10.6084/m9.figshare.28659074.v3>

Actual SAF production in 2024 was only **11 %** of originally announced capacity.

A lot of projects are delayed



GLOBAL DATA

Martulli, Alessandro; Malina, Robert (2025). Sustainable aviation fuels (SAF) projects realization gap and state. figshare. Figure. <https://doi.org/10.6084/m9.figshare.28659074.v3>

Cumulative capacity expected by end of 2024:

31% Inactive
45% Delayed
24% Operational

Inactive (by capacity):

58% Fischer-Tropsch
36% HEFA
6% Others

Operational (by capacity):

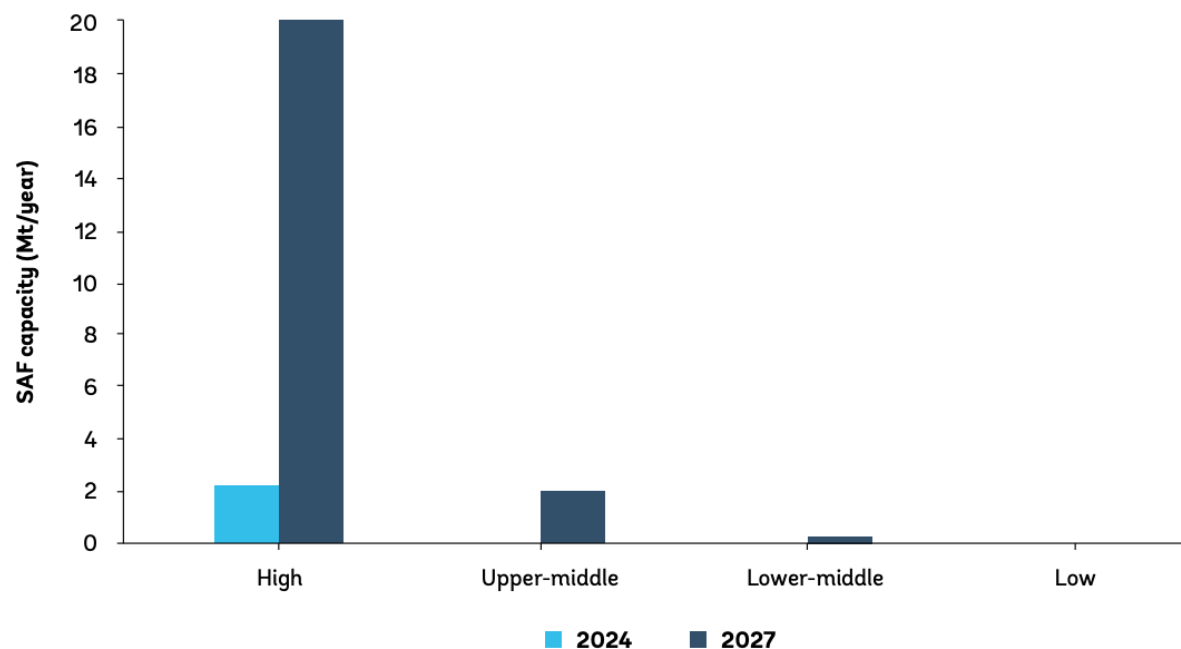
71% HEFA
24% Co-Processing
5% Others

Source: UHasselt analysis of SAF announcements.

Projects primarily in rich countries



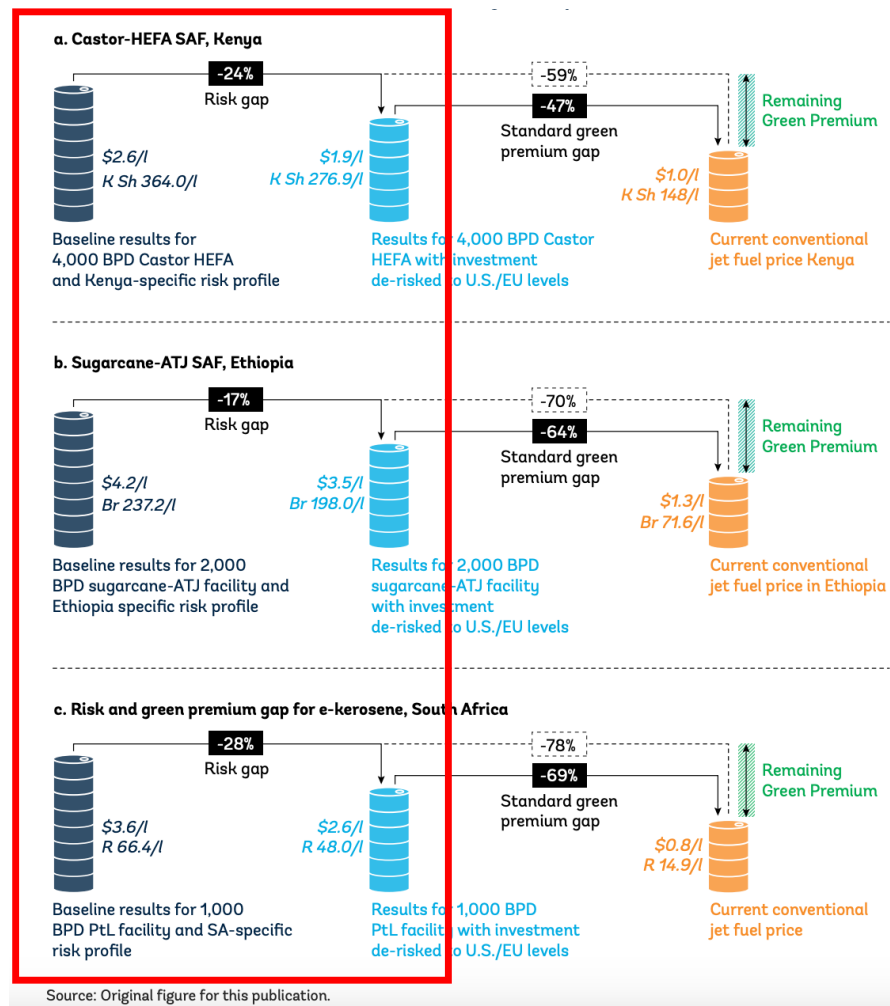
B. Installed SAF capacity in 2024 and capacity announced to be operational by 2027, by income



Note: The figure is based on analysis of publicly available data on operational SAF facilities and announcements of planned SAF facilities capacity in millions of tons per year. It includes only concrete announcements of facilities with location. In cases where only total production is provided, SAF output was estimated using the following assumptions about the SAF product share: Hydrotreated esters and fatty acids (HEFA): 0.51; co-processing: 0.1; alcohol to jet: 0.7; Fischer-Tropsch: 0.57, power to liquid: 0.47, catalytic hydrothermolysis: 0.4. Mt = million tons.

Source: Original figure for this publication.

Projects primarily in rich countries





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