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21º CONFERENCIA INTERNACIONAL SOBRE PALMA DE ACEITE

21st International Oil Palm Conference

Global Feedstock Assessment for SAF Production

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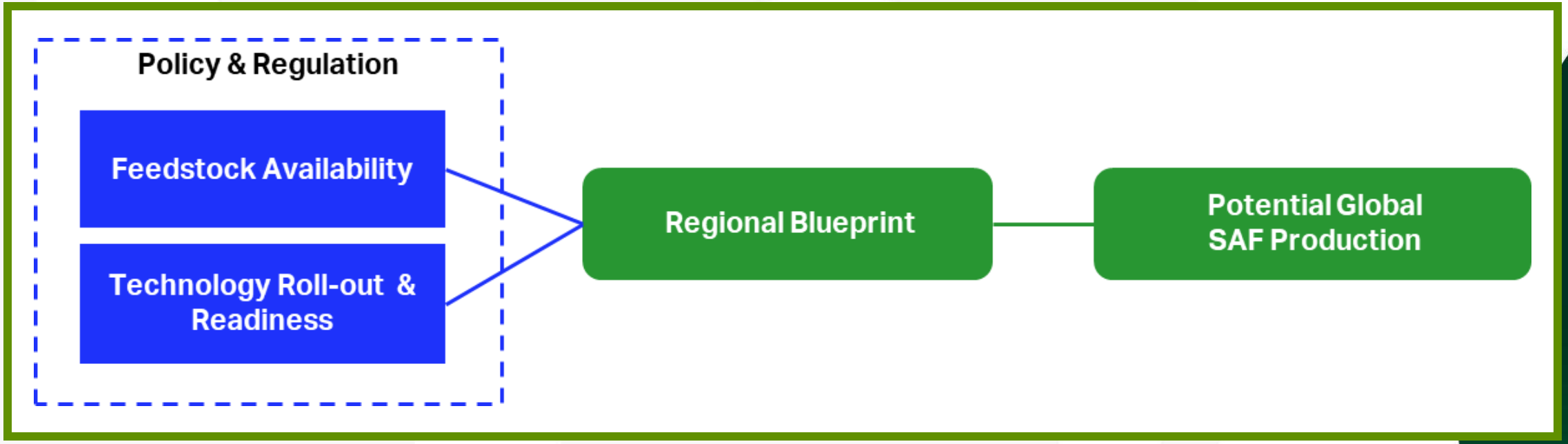
Introduction

- SAF estimated output of 2 million tonnes (Mt) in 2025 represents a mere 0.7% of total jet fuel consumption
- The annual production must increase exponentially to reach 500 Mt in 2050 to enable net zero CO_2 emissions
- A comprehensive, credible, and **robust assessment of feedstocks** that can be used to produce SAF is necessary to allocate prioritized support to the **most promising areas and production pathways**.

Research Methodology

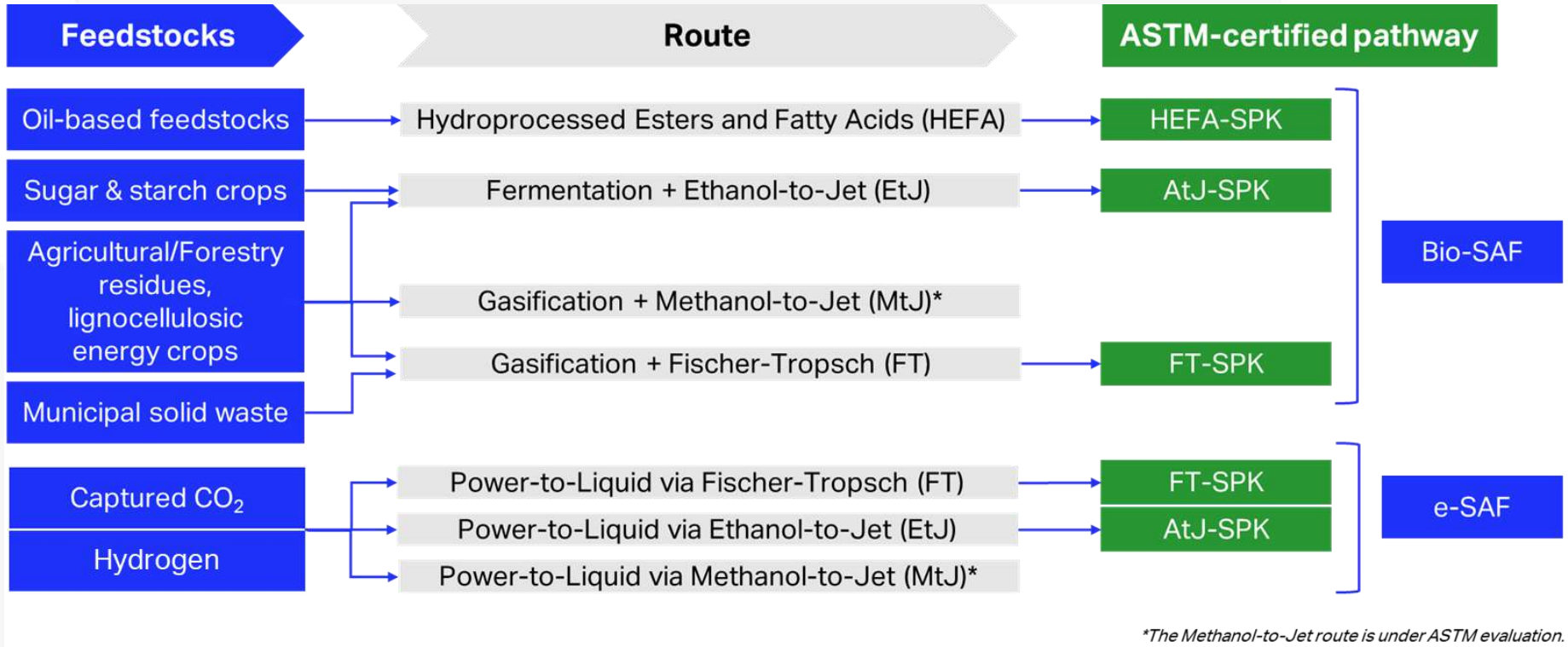


Source: Worley Consulting, IATA Sustainability & Economics, 2025

Feedstock Assessment

- When assessing feedstock availability, there are three layers that consider existing biomass logistics infrastructure, geographical distribution, and specific policy drivers:
  - Unconstrained feedstock availability,
  - Potential feedstock availability for bioenergy and biofuels,
  - Potential feedstock availability for SAF production.
- The production of Power to Liquid (PtL) fuels is reliant on a combination of captured CO_2 and hydrogen.

SAF Technology Overview



*The Methanol-to-Jet route is under ASTM evaluation.

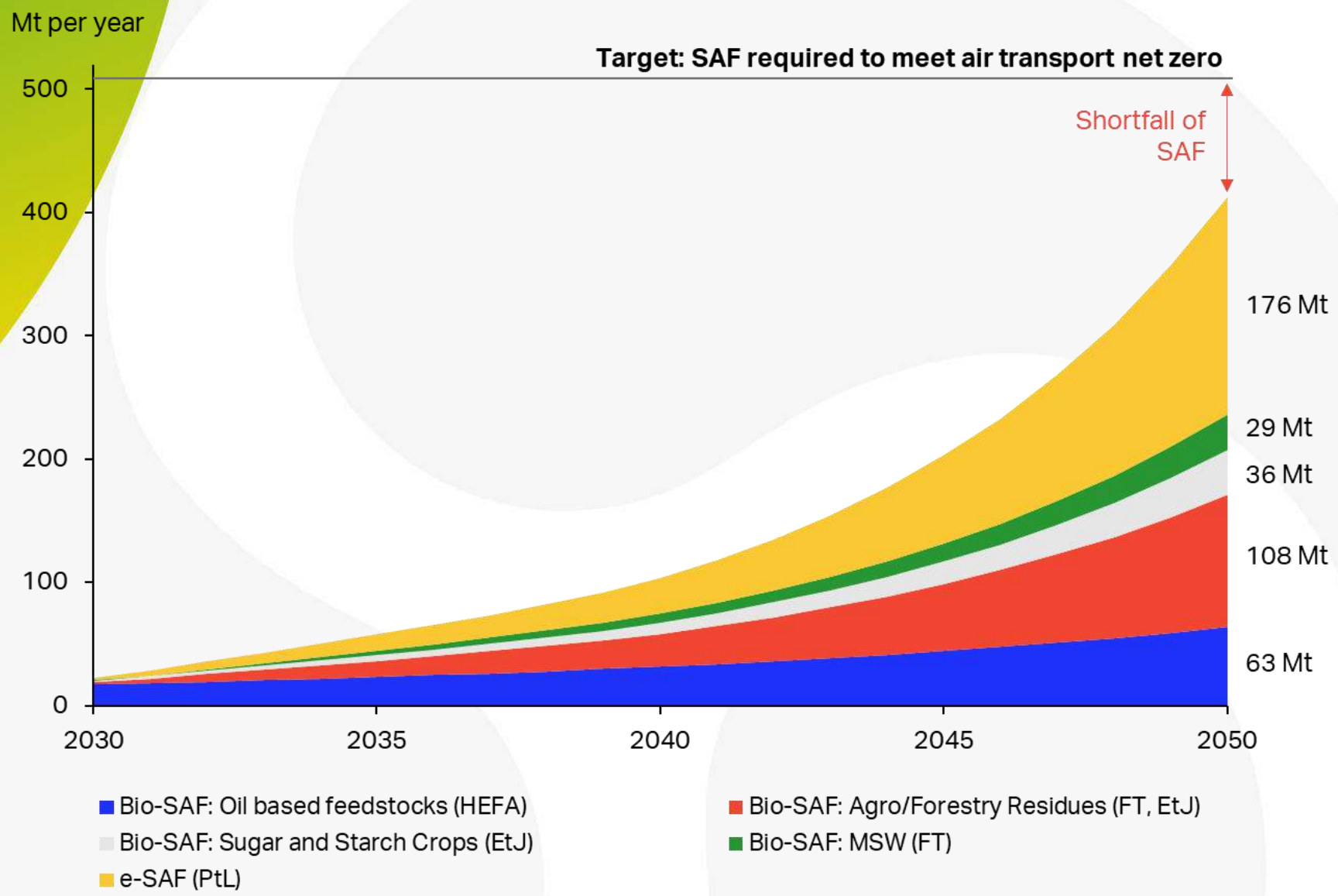
Source: Worley Consulting, IATA Sustainability & Economics, 2025

Estimated Biomass Availability and projected SAF Volumes

Key SAF Technologies	Feedstock for Bioenergy & Biofuels	Feedstocks for SAF Production	Theoretical Maximum Bio-SAF	Core SAF forecast
Bio-SAF: Oil-based (HEFA)	189	82	63	63
Bio-SAF: Sugar and Starch crops (EtJ)	197	84	45	36
Bio-SAF: Agroforestry Residues (FT, EtJ)	3,097	1,171	176	108
Bio-SAF: MSW (FT)	717	240	38	29
e-SAF (FT, MtJ, EtJ)	-	-	-	176

Source: Worley Consulting, IATA Sustainability & Economics, 2025

Estimated global SAF production potential



South & Central America

- Projected availability of 1,700 Mt of unconstrained feedstock by 2030, rising to 2,100 Mt by 2050.
- The region could supply approximately 169 Mt of feedstock for SAF by 2030 and 217 Mt by 2050.
- In South and Central America, bio-SAF is expected to account for 70% of the region's **estimated 60 Mt of SAF production by 2050**, while e-SAF will account for the remainder.

Conclusions

- Biomass feedstock availability is substantial, however not all of it will be allocated to SAF production.
- Achieving 500 Mt of SAF will require both **secure access to sustainable biomass feedstocks** and an urgent and accelerated **scaling-up of novel SAF technologies**.
- This includes e-SAF which can help reach the targeted volumes, depending on the availability of low-cost renewable electricity, hydrogen, and CO_2.

MUCHAS GRACIAS

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