

**ICAO EUR/NAT and ACI EUROPE
REGIONAL GREEN AIRPORTS SEMINAR**

Hosted by the Ministry of Transport

Republic of Kazakhstan

LANZAJET



ICAO



Decarbonizing aviation to net zero

Industry consensus views SAF as the key driver for net zero aviation



Operational efficiency



Offsets & market based measures

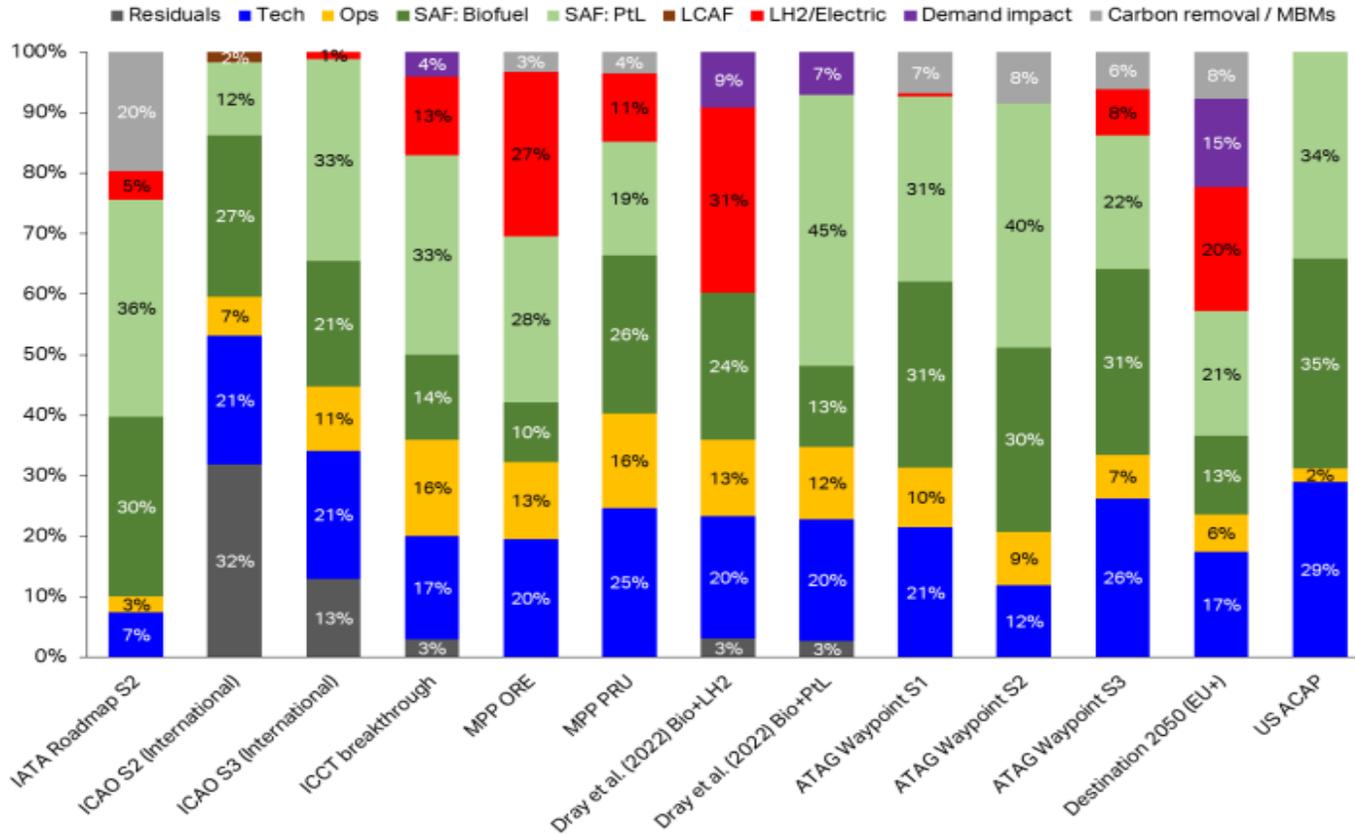


Advanced technology



SAF

SAF is the most important part of all the different Global CO₂ Roadmaps...



Source: IATA, Net Fly Zero, October 2021

... making up anywhere from 30% to 70% of them

The ecosystem is developing, but there is still more to do



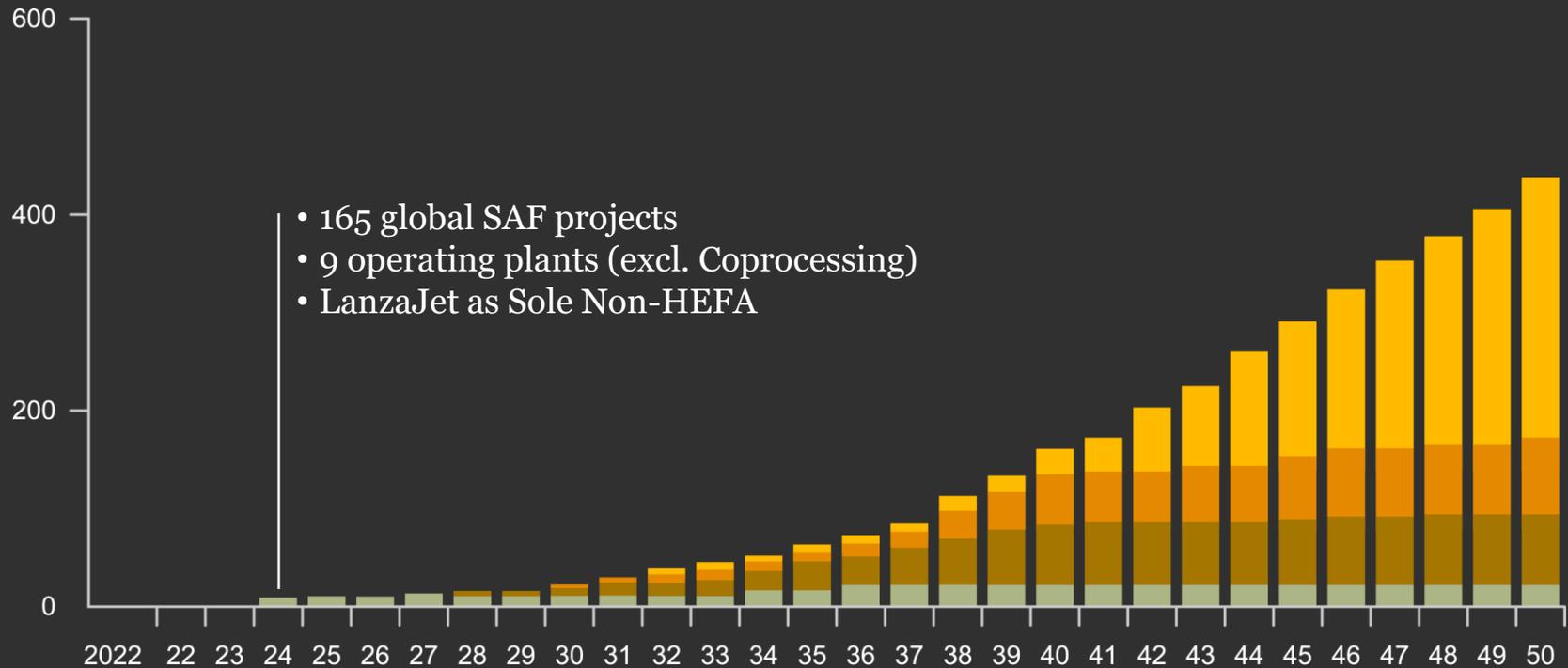
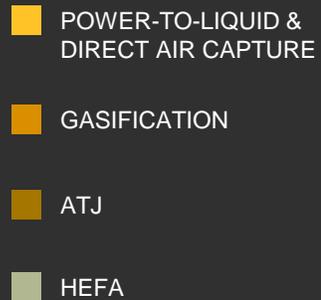
**The expansion of SAF
relies heavily on
strong partnerships
forged across the
entire value chain.**

ATJ has the significant potential for supply growth as others hit capacity limits

SAF PRODUCTION BY TECHNOLOGY PATHWAY (2022-2050)

MILLIONS OF TONNES

LANZAJET ILLUSTRATION



- 165 global SAF projects
- 9 operating plants (excl. Coprocessing)
- LanzaJet as Sole Non-HEFA

Source: LEK report Fueling the future of aviation (2023) with sources from Bergero et al. (2023), IATA, ATAG (2020), WEF (2021).

Our history of leadership in SAF

1st TO MARKET

Received ASTM approval in 2018 using LanzaJet ATJ data, followed by commercial flights

BEST TECH

13+ years of technology development now being deployed commercially

INDUSTRY LEADERS

Industry-leading shareholders, supporters and partners

WORLD'S 1st

The world's first ATJ plant, fully funded, committed offtake in place for the next 10 years

1 BILLION+ GPY

Projects around the world: US, EU, UK, Japan, India, Australia, and New Zealand

EXCELLENT ATTRIBUTES

Significant reduction in GHG emissions, 95% reduction in particulates, increase in energy density

WORLD-CLASS

Building for growth and scalability with a world-class team of leaders, engineers, and innovators

Supported by world-class funders and partners

LanzaTech



Southwest

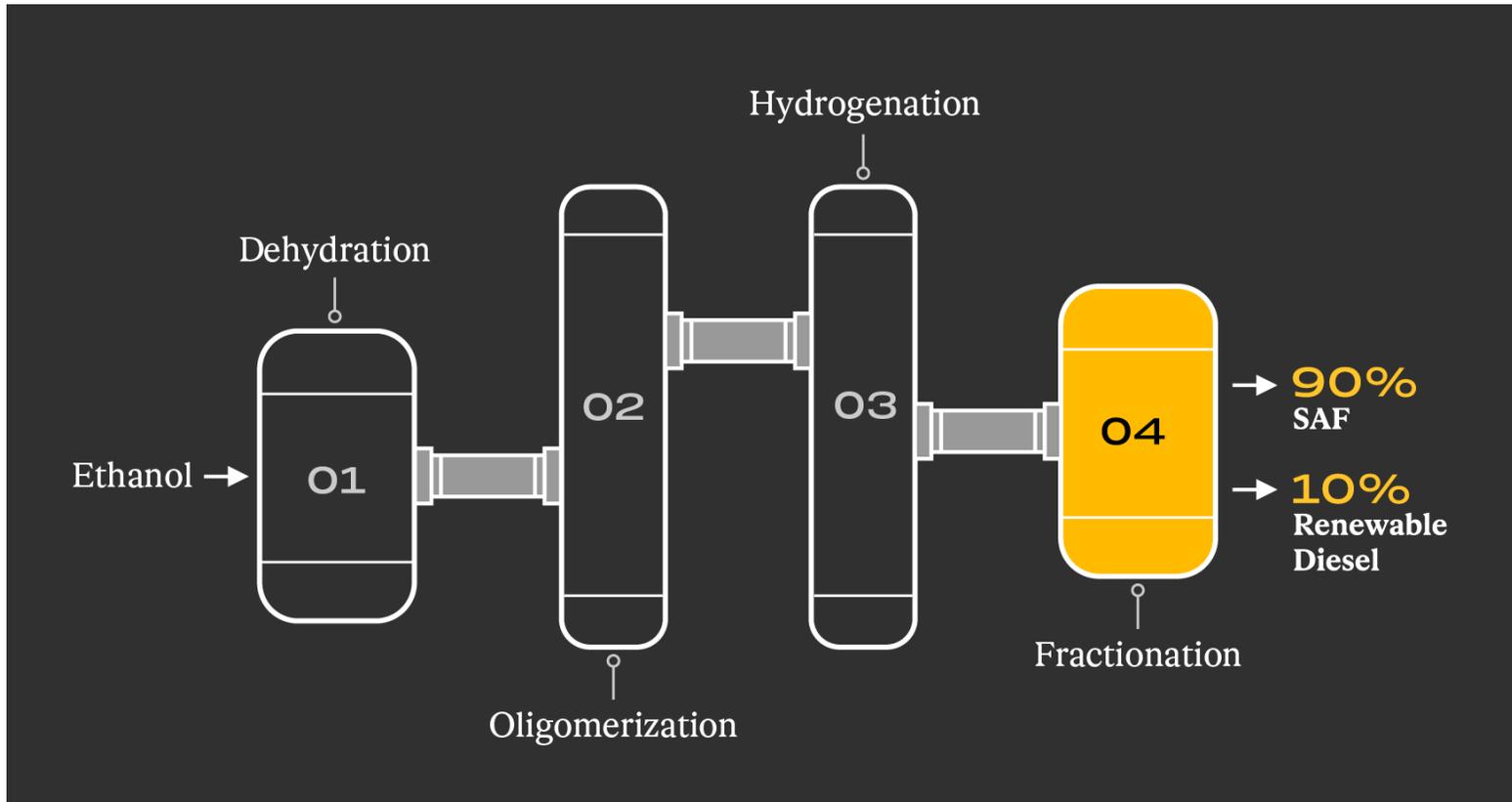


AIRBUS

- ✓ Funding commitments
- ✓ Commercial-scale projects commitments
- ✓ Offtake commitments
- ✓ Knowledge, support, and secondees commitments
- ✓ Feedstock supply flexibility commitments
- ✓ Innovative commitments

Our Alcohol-to-Jet (ATJ) technology leads in **Commercial Deployment**

High selectivity to SAF, high carbon efficiency, abundant feedstock, and platform versatility



30B Gallons Available Today

Leveraging & Transitioning Existing Ethanol Supply

- Existing low-CI ethanol production
- Cellulosic ethanol
- Waste-based ethanol

Unlimited Potential

Building New Waste-Based Ethanol Supply

- Industrial / landfill off-gasses
- Agricultural waste and residues
- Municipal Solid Waste (MSW)
- Corn fiber cellulose / sugarcane bagasse
- Direct Air Capture (DAC) – CO₂ + H₂

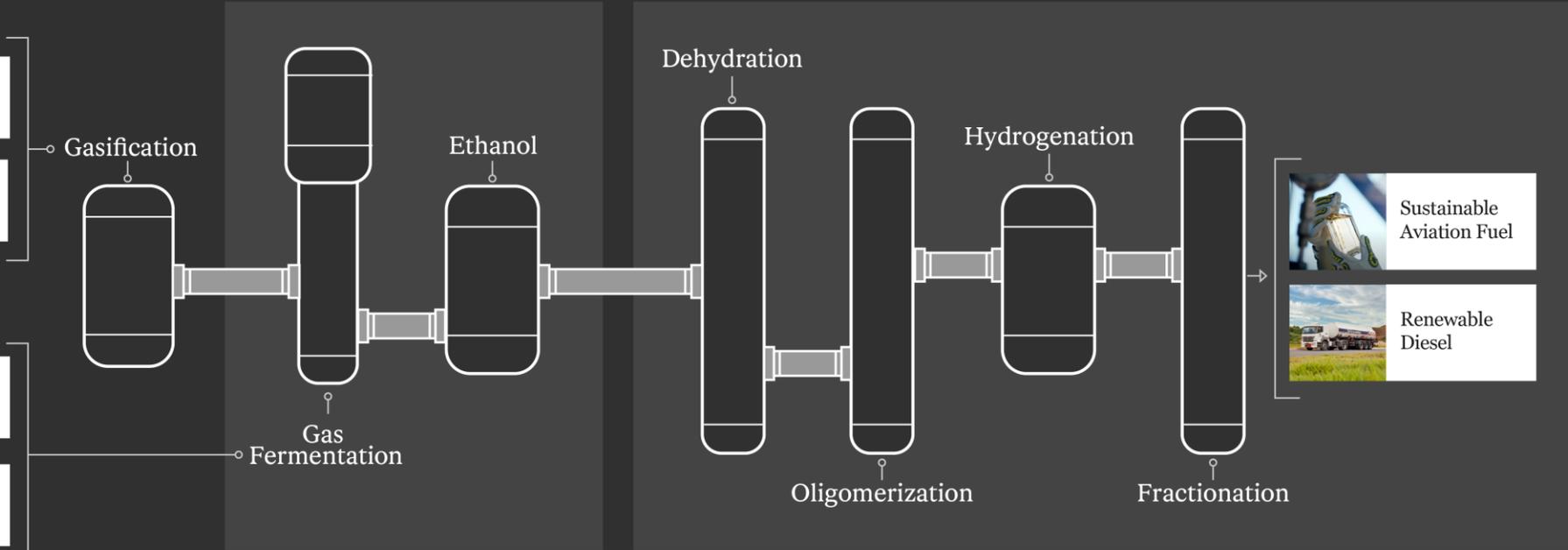
We can use any **feedstock** and turn it into SAF



The widest range of carbon sources become drop in SAF & Renewable Diesel

CIRCULAIR™

Waste Carbon Streams



LanzaTech

LANZAJET

Currently commercially viable technology won't be able to meet future demand, but with CirculAir, we can...

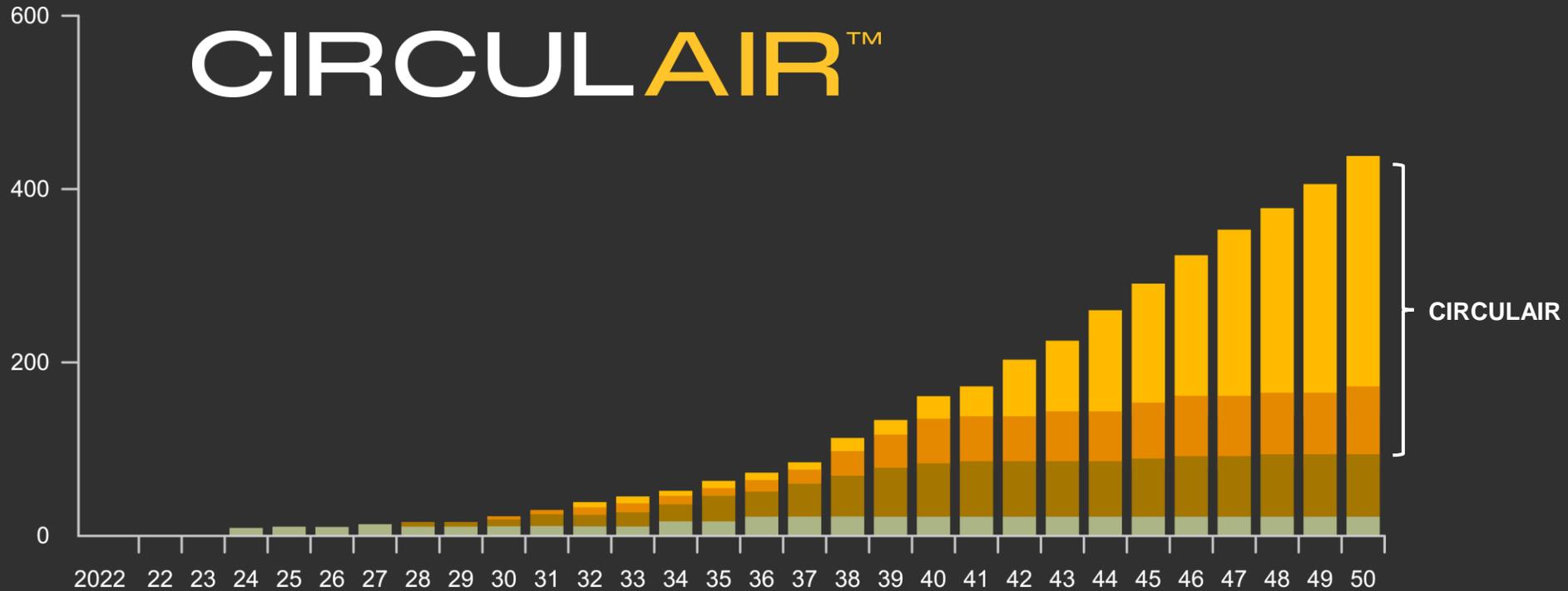
Significant portion of forecasted Gasification and PTL & DAC will be met with ATJ as enabling technology

SAF PRODUCTION BY TECHNOLOGY PATHWAY (2022-2050)

MILLIONS OF TONNES

LANZAJET ILLUSTRATION

- POWER-TO-LIQUID & DIRECT AIR CAPTURE
- GASIFICATION
- ATJ
- HEFA



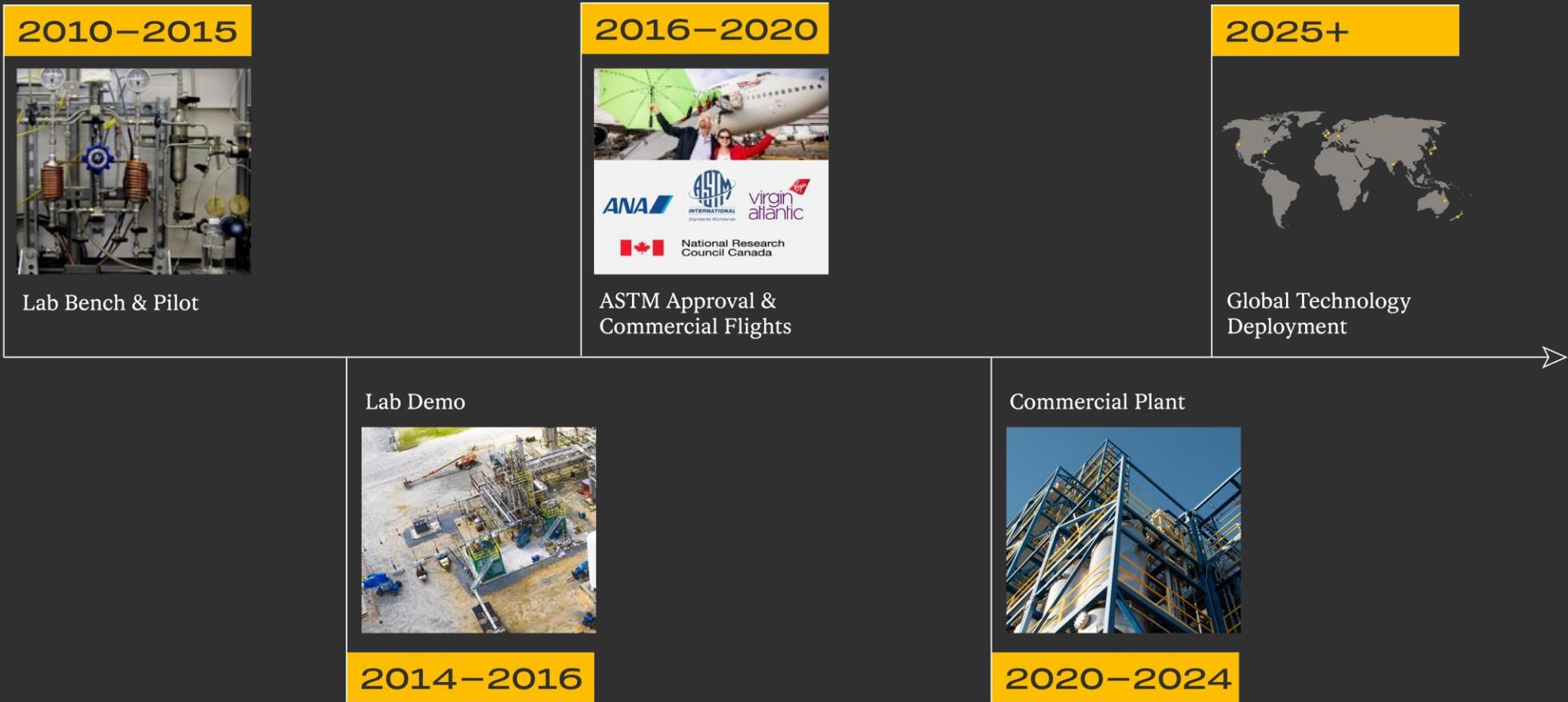
Source: LEK report Fueling the future of aviation (2023) with sources from Bergero et al. (2023), IATA, ATAG (2020), WEF (2021).

World's First commercial ethanol ATJ plant



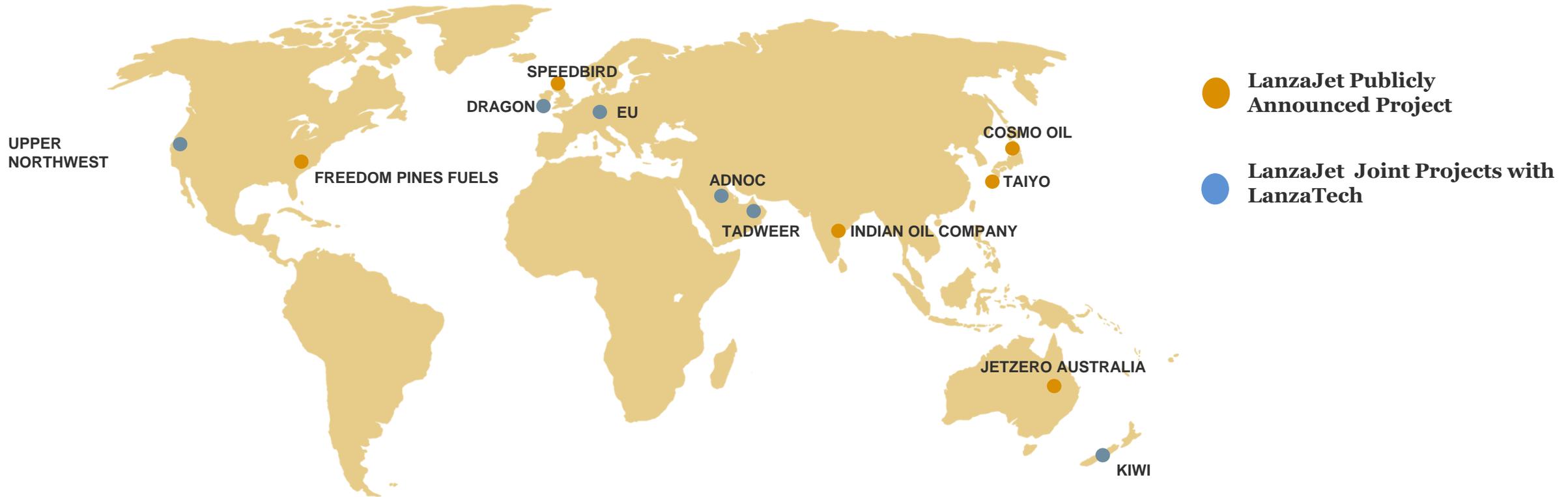
- The first and only SAF company to have funded and constructed a commercial ethanol ATJ biorefinery; set to start production in 2024 in the U.S.
- Located in Soperton, GA – 100 miles West of Savannah, GA, U.S.
- Total SAF/RD production of 10M GPY (90% SAF / 10% RD)
- Ethanol feedstock is multiple including sugarcane ethanol, cellulosic ethanol, and waste-based ethanol

Georgia plant is important to global, commercial deployment



Publicly announced LanzaJet projects

Our activities span over 25 countries across 5 continents, including Kazakhstan!



Accelerating the SAF industry

LanzaJet is best positioned to enable aviation's current and future needs to meet carbon reduction goals

Leading ethanol ATJ technology and producer

Versatile platform to produce SAF from any raw material

Attractive economics with capital and cash cost of production

First and only constructed commercial ethanol ATJ biorefinery in the world

High growth phase with focused capability and team

Systems thinker and doer with credibility in building a sustainable SAF industry

LANZAJET

Someday is now.



Stephane Thion

Vice President, Commercial