FuelsEurope

Europe's renewable fuels outlook

Delivering today, investing for 2030

SEPTEMBER 2026

Introduction

Europe's renewable fuels industry is already delivering tangible results and scaling up production to support the EU's climate ambitions. The first year of ReFuelEU Aviation demonstrated that fuel suppliers can meet and exceed regulatory requirements, while a growing portfolio of renewable fuel projects continues to strengthen Europe's production base.

This outlook provides an overview of current renewable fuel and Sustainable Aviation Fuel (SAF) capacity across the European Union, the investments supporting future growth, and the industry's readiness to meet upcoming ReFuelEU Aviation targets. It also highlights a growing concern for 2030: while bio-SAF capacity is progressing, the vast majority of announced e-SAF projects have yet to reach Final Investment Decision. As a result, much of the announced e-SAF capacity is unlikely to be operational by 2030, raising serious doubts about the availability of sufficient volumes to meet the ReFuelEU Aviation e-SAF mandate.

DATA

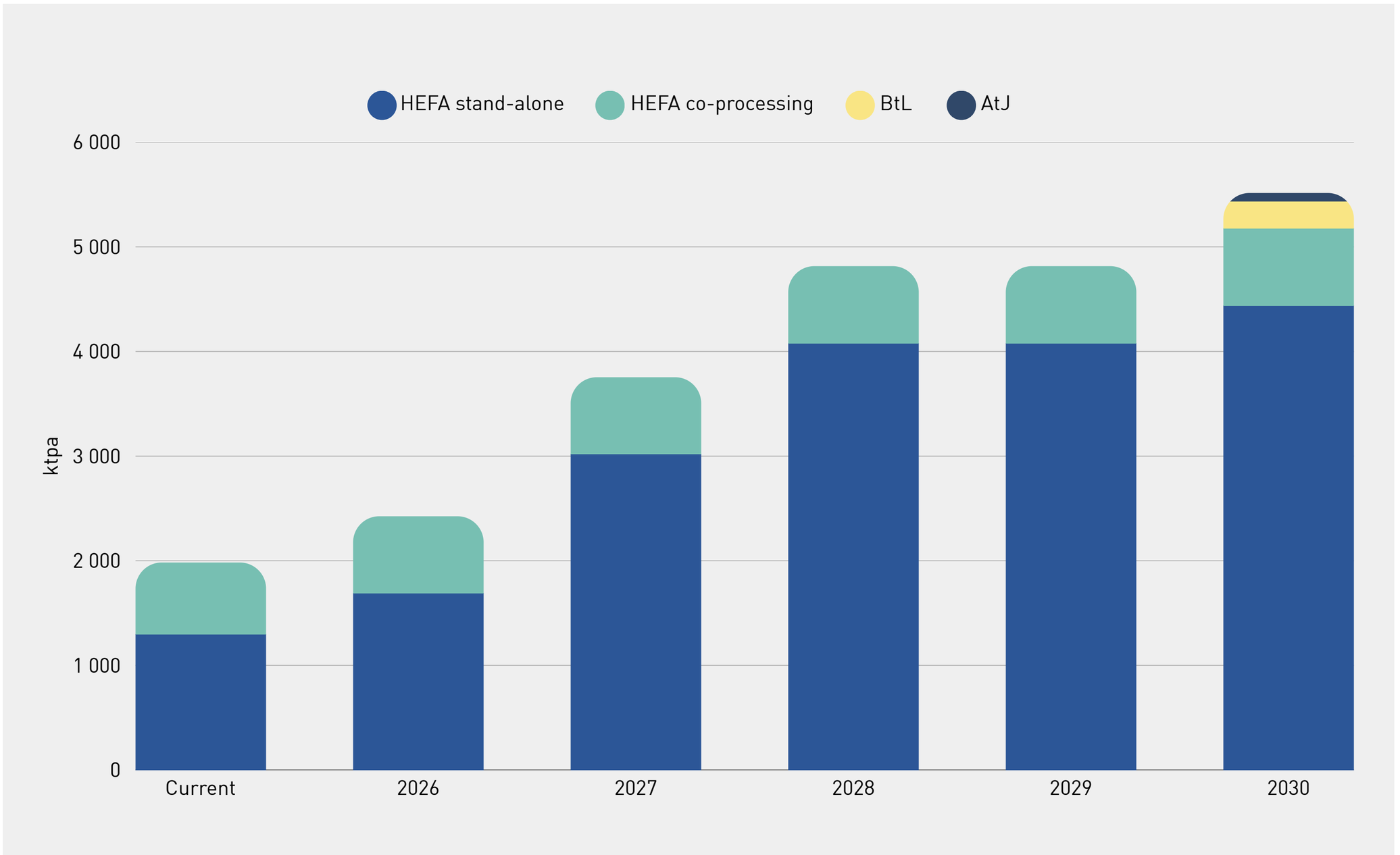
European SAF production capacity continues to expand 1

Europe appears on track to meet SAF targets. E-SAF remains the challenge 2

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1. European SAF production capacity continues to expand

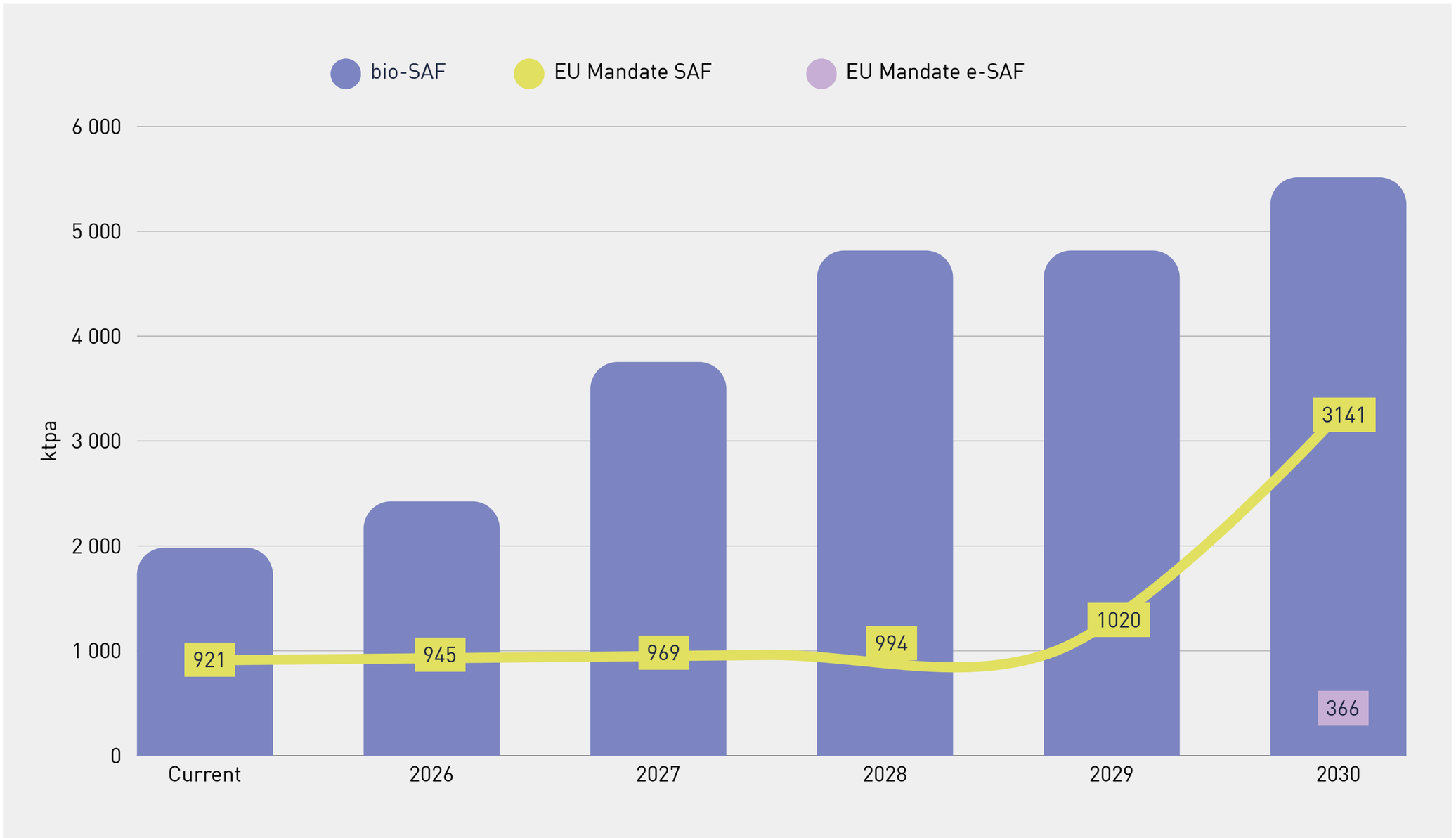


SAF production capacity is projected to rise sharply by 2030, driven mainly by new stand-alone biorefineries and refinery co-processing projects. Current and announced projects (see graph on page 5) could increase SAF production capacity from around 2 million tonnes today to more than 5 million tonnes by 2030. Biomass-to-liquid (BtL) and Alcohol to Jet (AtJ) projects could start contributing from the end of the decade, assuming FIDs are taken without delay, adding further supply potential

Legend
HEFA: Hydroprocessed Esters and Fatty Acids
BTL: Biomass-to-Liquids
AtJ: Alcohol-to-Jet
ktpa: kilotonnes per annum

Production pathways
Stand-alone processing: dedicated biorefineries converting renewable feedstocks into renewable fuels.
Co-processing: conventional petroleum refineries processing renewable feedstocks jointly with fossil-based feedstocks in existing refinery units.

2. Europe appears on track to meet SAF targets. E-SAF remains the challenge

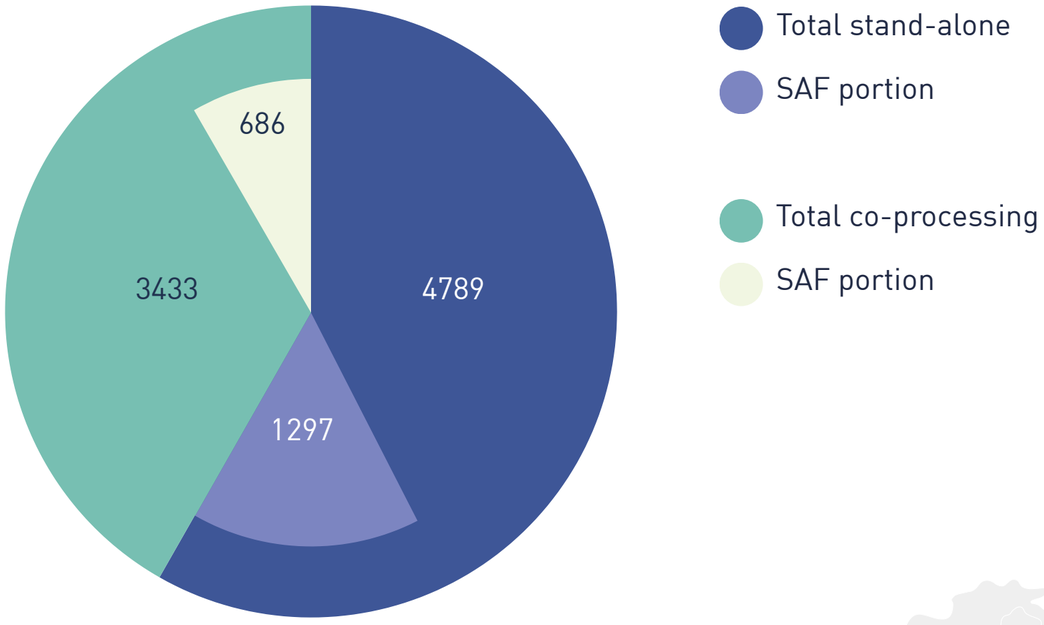


The latest capacity assessment suggests that enough bio-SAF production capacity is either operating or under development to meet the 2030 ReFuelEU Aviation SAF mandate. This is consistent with the first year of implementation, during which fuel suppliers exceeded the initial SAF target.

According to EASA, SAF reached 2.8% of aviation fuel supplied at EU airports in 2025, above the 2% requirement, and was available at 121 EU airports.

While overall SAF availability looks sufficient, the outlook for synthetic aviation fuels (e-SAF) remains significantly more challenging. Most announced e-fuel projects have not yet reached Final Investment Decision, meaning additional investment and regulatory certainty will be needed if Europe is to achieve its specific e-SAF objectives by 2030.

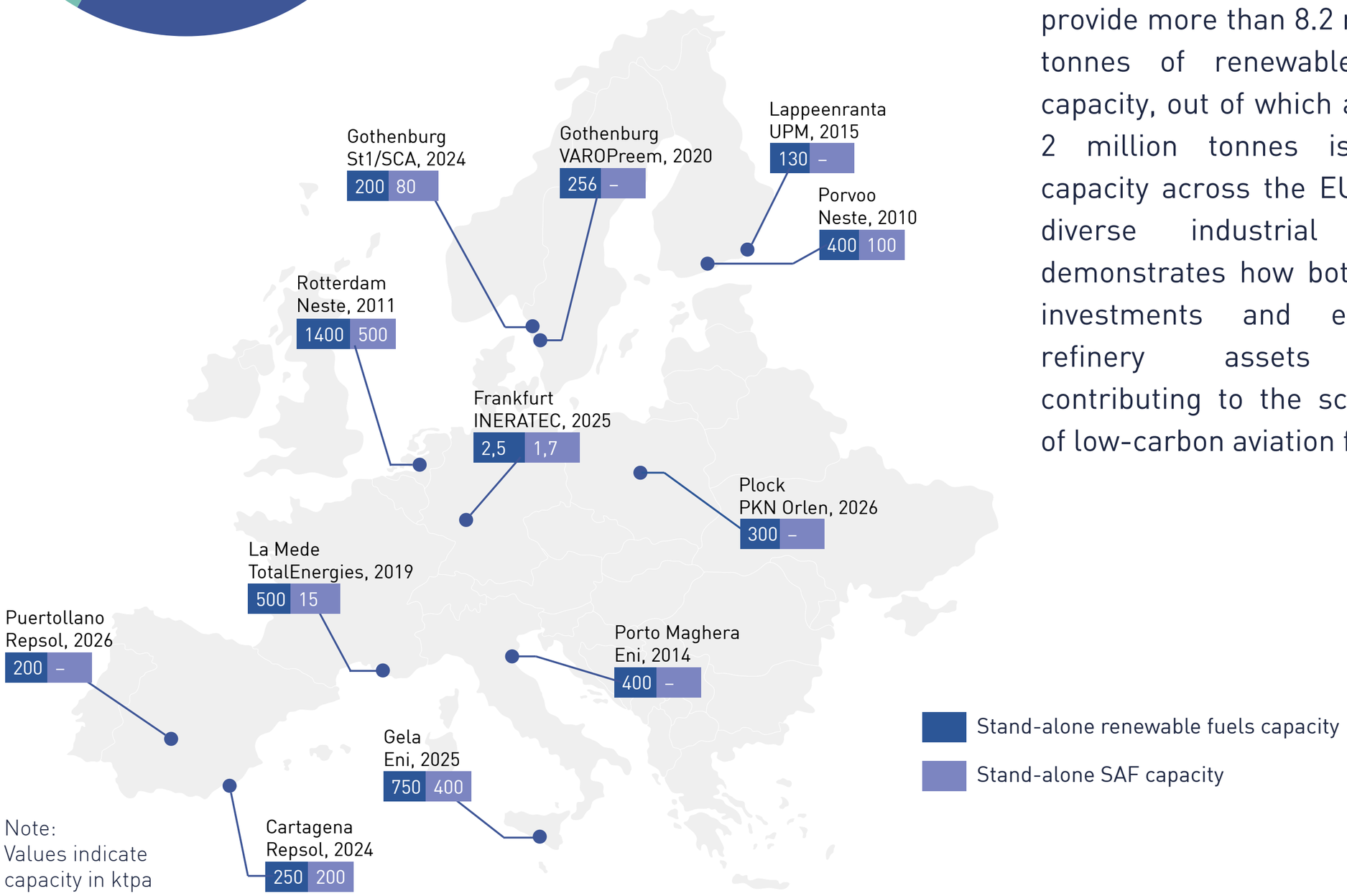
3. Existing EU renewable fuel capacity is built on two complementary production routes



Europe's renewable fuels production system already combines dedicated renewable fuel plants with co-processing in conventional refineries. Stand-alone facilities account for around 58% of total renewable fuels capacity in operation, while co-processing contributes about 42%.

Together, these facilities provide more than 8.2 million tonnes of renewable fuel capacity, out of which almost 2 million tonnes is SAF capacity across the EU. This diverse industrial base demonstrates how both new investments and existing refinery assets are contributing to the scale-up of low-carbon aviation fuels.

Standalone facilities in operation

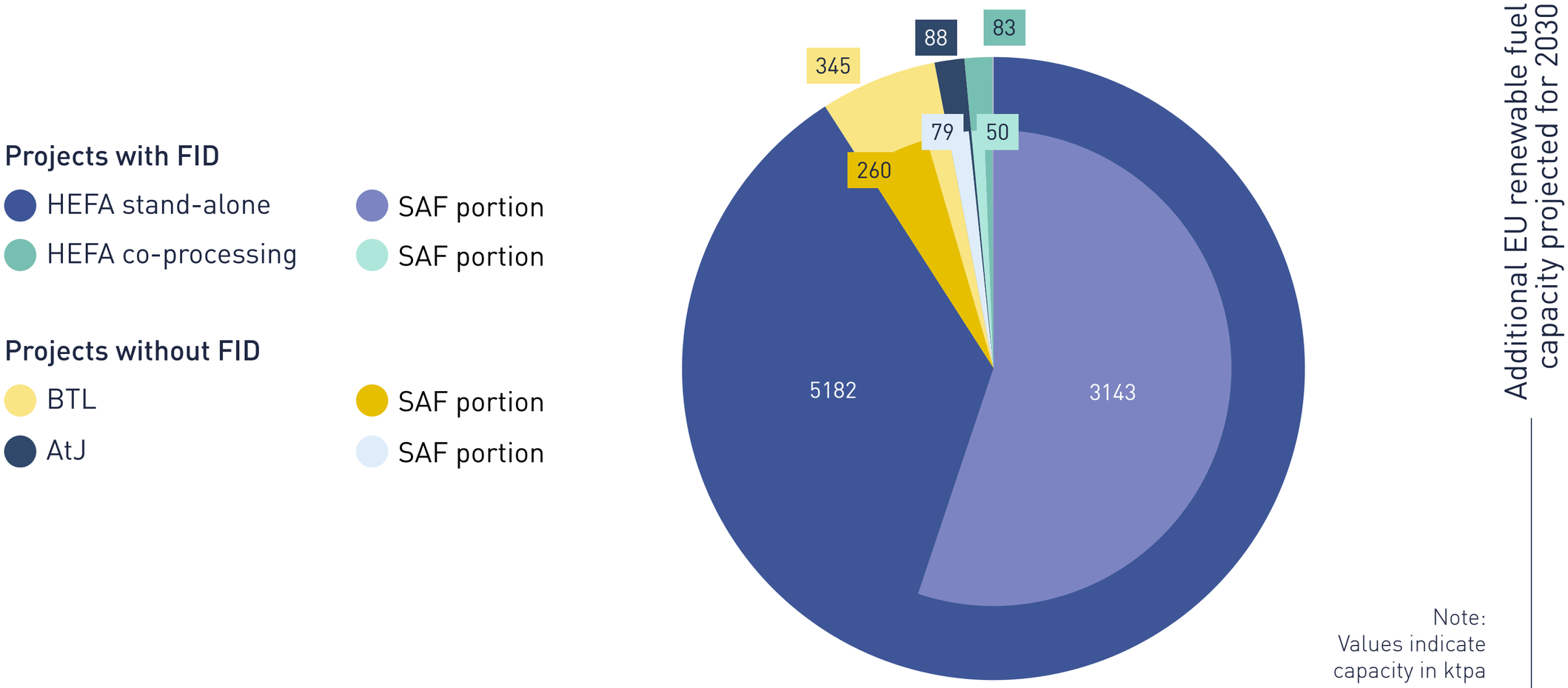


4. SAF targets are supported by investment. E-SAF remains largely uncommitted

European industry has announced significant investments in additional SAF production capacity, with more than 3.5 million tonnes per year of new SAF capacity expected by 2030 from projects that have already reached Final Investment Decision (FID), are under construction, or are progressing through implementation. Most of this capacity will come from HEFA-based projects, which are already being built across Europe.

The picture is very different for e-SAF. While 15 e-fuel projects representing around 1.4 million tonnes per year of announced capacity have been identified, only one project, with a capacity of 1.5 ktpa, has reached FID and is therefore included in the current capacity outlook. The remaining announced capacity remains contingent on investment decisions that have not yet been taken.

Because e-fuel projects typically require several years between FID and commercial operation, projects that have not secured FID by the end of 2026 are unlikely to contribute materially to production volumes available in 2030. This highlights the urgency of creating the investment conditions needed to unlock final investment decisions and support delivery of the ReFuelEU Aviation e-SAF mandate.



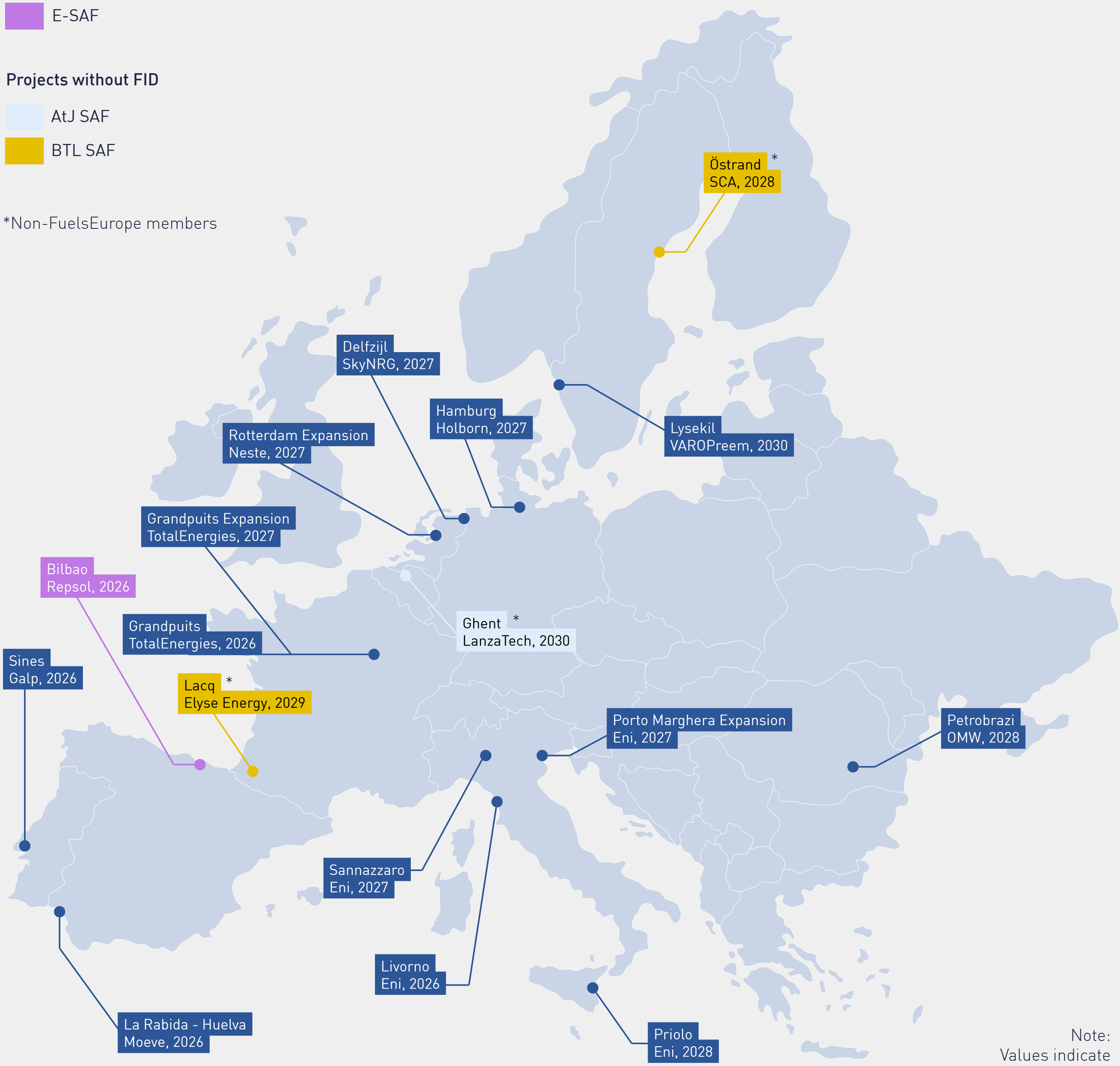
Projects with FID

- HEFA stand-alone renewable fuels
- E-SAF

Projects without FID

- AtJ SAF
- BTL SAF

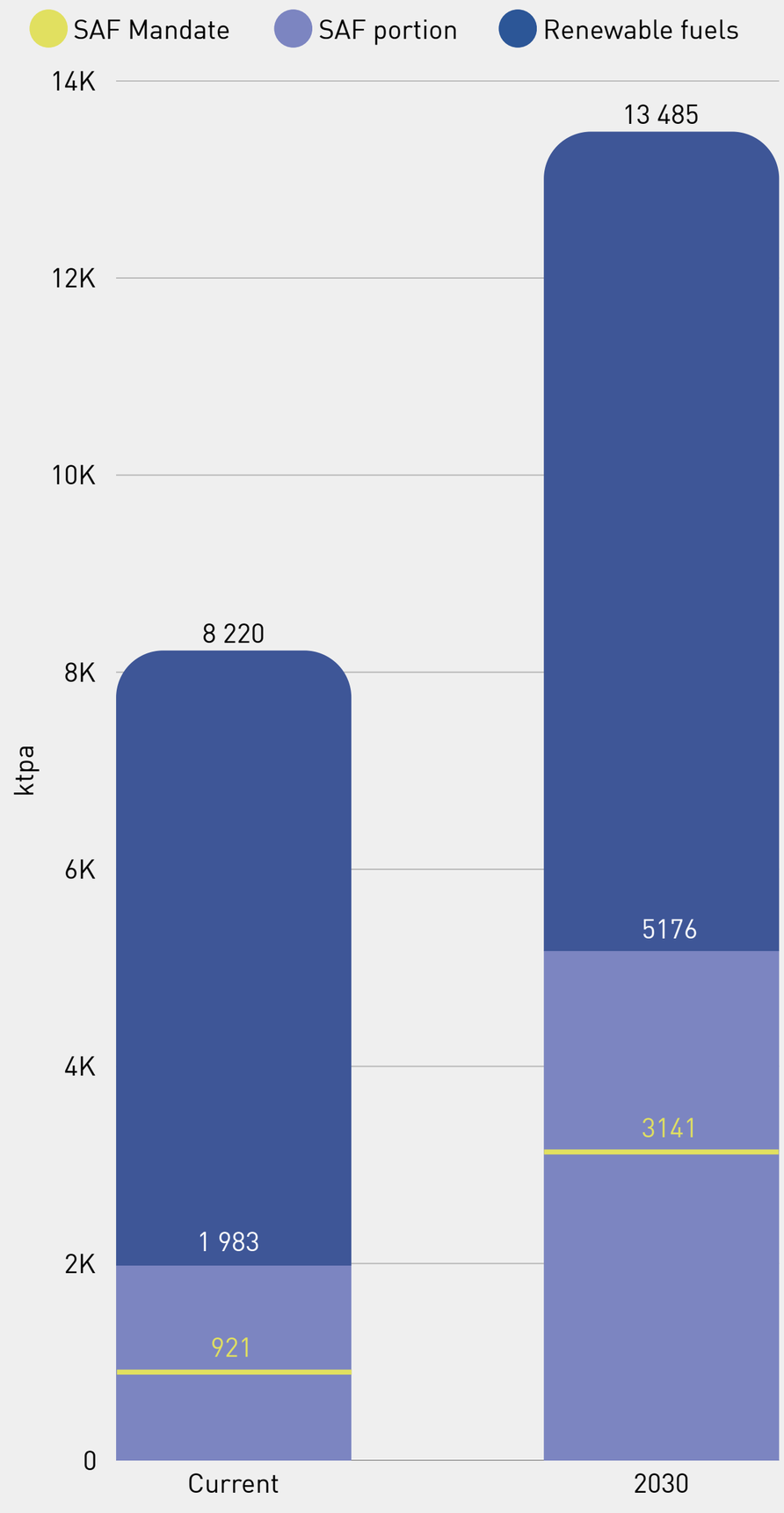
*Non-FuelsEurope members



Note:
Values indicate capacity in ktpa

Projects that have achieved Final Investment Decision

5. Estimated Total Renewable Fuel Capacity in 2030



Estimated renewable fuel capacity in 2030 comprises currently available capacity (8,220 ktpa, including 1,983 ktpa of SAF) and planned projects that have reached FID (5,265 ktpa, including 3,193 ktpa of SAF). This results in a total estimated capacity of 13,485 ktpa, including 5,176 ktpa of SAF.

The estimated SAF capacity is well above the ReFuelEU Aviation SAF mandate of 921 ktpa currently and 3,141 ktpa in 2030.

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