



European HVO Market: Between Growth and Tensions by 2030

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Driven by the RED III directive and the acceleration of biofuel mandates, European demand could quadruple by 2030, putting production capacities and feedstocks under significant pressure.

Currently, **European HVO production capacity is estimated at around 5 million tonnes, but it could exceed 11.5 million tonnes by 2030** with the commissioning of new facilities, particularly in Northern Europe and Spain. Globally, HVO/HEFA capacities could reach 30–50 million tonnes by 2030, including projects related to SAF and co-processing.

European HVO demand is expected to grow strongly in the coming years, **with volumes nearly quadrupling between 2025 and 2030 to reach approximately 16–18 million tonnes, compared to the estimated 4–5 million tonnes in 2025.**

This momentum is primarily driven by the regulatory framework, especially the implementation of the RED III directive, which sets a target of 29% renewable energy in transport by 2030, with specific sub-targets for advanced biofuels.

The year 2027 will mark a major turning point with the widespread implementation of new national policies aligned with RED III. This milestone will represent a tipping point for all market participants, with a gradual but structural increase in blending obligations. At the same time, 2027 will also see the commissioning of new HVO/HEFA production units. However, these start-ups may experience delays or gradual ramp-ups, limiting their effective contribution during the year. The impact in volumes is therefore expected to be fully realized from the following year, as anticipated for several projects led by Moeve, VARO Preem, Galp, Repsol, or Neste. In this context, it remains difficult to precisely predict the timeline for reaching nominal capacity of these facilities.

Nevertheless, the order of magnitude of additional capacities expected in Europe is estimated at around 3 million tonnes by the end of 2027, with effective market contribution likely to materialize more gradually than anticipated.

From 2028 onwards, an acceleration phase is expected, with a significant increase in mandates in several European countries. This development should mechanically support HVO demand, while the FAME biodiesel market remains limited due to technical constraints of the “blend wall.”

The entry of new producers in Europe and Asia should slightly increase liquidity and introduce some competition in the market. This could have a moderate impact on HVO producer margins, benefiting distributors and HVO100 users. However, this effect will likely remain marginal compared to the strong structural demand.

In this context, the balance between supply and demand will remain a key factor, with a risk of structural tension on feedstocks and sustained support for HVO prices.

The HVO100 market thus appears as an indirect response to these regulatory obligations. Oil companies have two levers: either blend biofuels into fossil fuels (B7, B10, E10, etc.) or market a 100% biofuel such as HVO100 to generate certificates proving the consumption of renewable energy volumes required by mandates.

Nonetheless, several uncertainties remain and could reshape market dynamics in the medium term. The evolution of diesel demand in Europe, marked by a structural downward trend (e.g., -4.5% per year in France), could mechanically limit volumes that can be blended. In addition, the rise of competing decarbonization solutions—such as BioCNG, electrification, or B100—introduces growing competition and provides oil companies with alternatives regarding bio-certificates. Finally, upcoming regulatory changes, particularly on greenhouse gas emission criteria, could reshape the market by giving a renewed role to first-generation biofuels (B100/RME/FAME) with intermediate or low-carbon crops.

Several central questions arise for the future of the HVO market: will it maintain its dominant role in road transport decarbonization, or will it need to integrate into an increasingly diversified mix of solutions and regulations? What will be the price level of HVO100 paid by transporters across Europe, and will national price divergences persist or widen? How will competition on bio-certificate prices play out between different decarbonization solutions in each country? Beyond these market questions, structural issues remain: sourcing and securing feedstocks, competition between HVO, HEFA, and UCOME on the used cooking oil market, as well as margin evolution and supply-demand balance. All of these factors make the HVO trajectory a key topic to monitor over the next five years.

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- 1st – Advisory in biofuels
- 1st – Research in biofuels

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TRACIFIC is a digital platform dedicated to carbon management and traceability across alternative fuel supply chains. Designed to support and enhance low-carbon initiatives, this software enables stakeholders across the value chain—producers, distributors, transport operators, and clients—to track, secure, and certify their environmental data. A true regulatory compliance tool, TRACIFIC includes a carbon calculator that meets the requirements of the European RED II and RED III directives. In particular, it allows users to demonstrate that the biomass used in biofuel production is sustainable, taking into account both greenhouse gas (GHG) emissions and carbon sequestration in soils. Beyond simple calculations, TRACIFIC positions itself as a comprehensive traceability solution. The platform ensures full tracking of raw material and energy flows, from origin to end user, in compliance with certification standards such as ISCC or 2BSvs. It also facilitates RED audits and guarantees full transparency of data throughout the supply chain.