

ESF EUROPE 2027

LOW CARBON PROJECTS & PATHWAYS

FROM CHALLENGE  TO OPPORTUNITY 

ADVISORY MEETING TAKEAWAYS

01

**High
Margins
Mask a
Structural
Challenge****CHALLENGE**

Today's strong refining margins mask a more difficult long-term outlook. Before the Iran-Gulf conflict, market conditions were significantly more bearish, and Europe's underlying competitiveness challenges remain unchanged: high energy and labour costs, ETS exposure and competition from newer, lower-cost capacity elsewhere in the world continue to put pressure on the long-term viability of a number of Europe's refineries.

**OPPORTUNITY**

The outlook is not uniform. A number of European refineries benefit from advantaged cost positions, strong locations, integrated assets or other structural strengths, and today's higher margins provide a window to invest. Reinvesting in efficiency, optimisation and the transformation of these competitive assets can strengthen Europe's long-term position and better prepare the industry for when more challenging margin conditions return.

02

**From
Replacement
to
Coexistence****CHALLENGE**

The transition is becoming more balanced and gradual, with growing recognition that conventional and renewable molecules need to coexist. However, stronger fossil margins today risk shifting attention and capital back to the short term, while the need to develop and scale lower-carbon pathways remains.

**OPPORTUNITY**

Strong conventional margins can help fund the transition rather than compete with it. Companies can use cash flows from today's advantaged assets to invest in renewable and lower-carbon molecules, progressively transforming their portfolios while maintaining the resilient conventional businesses needed to support long-term growth.

03

We Need Each Other to Unlock the Transition



CHALLENGE

Ambition and demand have not fundamentally changed, but uncertainty is creating a stalemate between infrastructure, producers, and off-takers. Each needs the other to commit before investing.



OPPORTUNITY

Greater collaboration across the value chain is critical to breaking this deadlock. Bringing producers, infrastructure providers, off-takers, policymakers, and investors together can align demand, investment, and infrastructure development; share risk; and build the confidence needed to move projects forward and create new markets at scale.

04

Protect the Ecosystem Not Just the Asset



CHALLENGE

Europe's highly integrated industrial clusters are a major competitive strength, but also create interdependencies. When one critical plant closes, the impact can ripple across the cluster, weakening shared infrastructure, supply chains and the economics of other assets.



OPPORTUNITY

Coordinated investment across interconnected facilities and infrastructure can strengthen the economics, resilience and long-term competitiveness of Europe's industrial clusters and the refining and chemical industries they support.

05

Don't Overlook the Quick Wins



CHALLENGE

European policy has tended to focus attention and support on large, headline net-zero projects, some of which have struggled to reach FID or ultimately been cancelled. This can overlook the significant decarbonisation potential available through smaller, lower-risk investments across existing industrial assets.



OPPORTUNITY

Process optimisation, energy efficiency and targeted asset improvements can often reach FID more easily, be implemented faster and deliver attractive returns while reducing emissions. Greater policy recognition and support for these proven solutions alongside larger transformational projects could deliver meaningful near-term carbon reductions while simultaneously strengthening the efficiency and competitiveness of Europe's existing industrial base.

06

The Industry Is Looking at Decarbonisation Too Narrowly



CHALLENGE

Decarbonisation is often viewed too narrowly through the lens of CO₂ reduction and molecule-to-molecule transformation, meaning electrification can be seen primarily as a cost rather than a potential driver of performance and competitiveness.



OPPORTUNITY

Successful electrification projects can reduce emissions while addressing operating constraints, improving flexibility and strengthening margins. As electrons become part of the refinery or plant equation, storage, flexible demand and other technologies can help optimise electricity use, capitalise on energy-market volatility and create new sources of value.

07

The Cost of Going Greenfield



CHALLENGE

Greenfield renewable fuel projects can be highly capital intensive, with a new HVO plant requiring around €2,500 in CAPEX per tonne of installed annual production capacity. When capital is constrained, this makes large-scale investment harder to justify and finance.



OPPORTUNITY

Converting existing refinery assets can require around 25% of the investment. While co-processing may not deliver 100% renewable production from day one, it can achieve a significant step towards decarbonisation.

08

The Innovation Funnel is Getting Blocked



CHALLENGE

Subsidy opportunities are helping drive innovation across bio-oil, recycling, carbon capture and integrated conversion technologies, but projects often struggle to move from development to commercial deployment. Without a viable route to scale, the innovation funnel becomes blocked.



OPPORTUNITY

Collaboration can help unblock the funnel. Established refiners and chemical companies can provide start-ups with the assets, infrastructure, operating expertise and real-world environment needed to demonstrate and scale technologies, while start-ups remain focused on innovation. Combined with financing and scale-up support, these partnerships can reduce risk, accelerate deployment and create a faster route to commercial scale.



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ESF EUROPE 2027

INTRODUCING 5 NEW FOCUSED ADVISORY MEETINGS

As Europe's refining and chemical industries face mounting pressure to balance competitiveness, decarbonisation and industrial resilience, bringing the right industry voices together has never been more important.

That's why, new for **ESF Europe 2027**, we're introducing five focused advisory meetings — each centered on one of the industry's most critical themes. Bringing together senior leaders from across the sector, these meetings will help shape an agenda that reflects the industry's real priorities, challenges, and opportunities today.

02

11th September

Digitalisation & AI

Turning AI ambition into operational reality by addressing the challenges of trust, governance, workforce adoption & scalable business value.

01

10th September

Sustainable Fuels

Accelerating the scale-up of sustainable fuels by addressing investment, feedstock, policy & value-chain challenges, while advancing the technologies & partnerships needed to turn demand into supply.

03

30th September

Stakeholder Strategy

Focusing on the competitiveness of Europe's refining & chemical industries, the policies & regulations shaping their future, & the action required to strengthen the sector's long-term resilience.

04

1st October

Low Carbon Projects & Pathways

Turning low-carbon ambition into bankable, scalable projects that deliver meaningful industrial transformation.

05

2nd October

Circularity & Sustainable Chemicals

Accelerating the commercial scale-up of circular and low-carbon chemicals, create sustained market demand and maintain industrial competitiveness.



Join us from **23–25 February 2027**, in **Amsterdam**, one of Europe's leading industrial hubs, which plays a central role in shaping Europe's industrial future.

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