



IDW DOWNSTREAM
CONFERENCE

Unlocking the Full Potential of Today's Assets

📅 15–17 September 2025 📍 Istanbul, Türkiye

25
YEARS
ANNIVERSARY

CO-HOSTED BY



SOCAR

ADVISORY MEETING TAKEAWAYS

MEETING HELD ON 25 MARCH 2025



Celebrating its 25th anniversary, IDW stands as one of Europe's longest-running and most respected technical conferences dedicated to the refining and petrochemical sectors. For a quarter of a century, IDW has served as a premier platform for industry knowledge, innovation, shared experiences, and practical solutions, helping companies navigate market shifts, regulatory challenges, and technological advancements.

With rising competition from the Middle East and Asia, fluctuating European regulations, and the push towards carbon neutrality, industry players must navigate an increasingly complex landscape. As refining and petrochemical margins face mounting pressures, the need for flexible, efficient, and resilient operations has never been greater.

This milestone edition of IDW continues its legacy of fostering strategic discussions, driving innovation, and providing industry leaders with the insights needed to adapt and thrive in an evolving energy landscape - and what better location than Istanbul to host this anniversary edition.



IDW 2025 ADVISORY COMMITTEE BOARD

For this special IDW edition we have convened some of the industry thought leaders to discuss the key developments in the refining and petrochemical industries, to identify key issues, debates and opportunities in the downstream industry both short- and long-term, with special focus on Türkiye investments and projects. The outcome of the meetings shared below will be used to enhance the IDW 2025 conference agenda.



IN ATTENDANCE

Bilal Guliyev, PhD – General Manager Refining & Petrochemicals BU, **SOCAR TÜRKİYE**

Szymon Walkowski – Strategy and Transformation Director, **RAFINERIA GDAŃSKA**

Ventsislav Mishev – Head of Renewable Liquids, **OMV**

Gábor Tóth – Head of Sustainable Solutions, **SLOVNAFT A.S.**

Miroslav Mrzula – Head of Group Polyol Product Development, **MOL GROUP**

Sanja Jakovac Sepic – Rijeka Refinery Production and Control Manager, **INA GRUPA**

Fabien Lundy – Commercial Vice President – EMEA, **AXENS**

Ujjal Mukherjee – Chief Technology Officer, **LUMMUS TECHNOLOGY**

Andrew Inglis – Director, Energy Transition, **ETASCA**

CHAired BY

Walter Pfeiffer, Partner, **ROLAND BERGER**

EPC

Miro Cavkov - Technical Director - Downstream & Energy Advisory

Stefan Chapman - Vice President

APOLOGIES

Güven Kaya – Deputy General Manager, **SASA POLYESTER**

Georgios Daskalakis – Head of Technology Management Strategy Division, **MOTOR OIL HELLAS**

KEY TAKEAWAYS

This report highlights the principal takeaways from the discussions and provides actionable insights for refining and petrochemical companies, policymakers, and investors as they prepare for IDW Downstream Conference 2025.

1. Industry Landscape & Market Conditions

Stable & Shifting Market Demand

- Eastern & Central Europe maintain stable fuel demand, with some regions experiencing slight growth due to local policies & incentives.
- Western Europe faces declining demand due to sustainability policies and increasing electrification.
- The Middle East and Asia are intensifying competition by increasing refining and petrochemical exports.

Timing & Investment in Alternative Markets

- While companies acknowledge the need to shift towards petrochemicals and biofuels, the challenge lies in determining the right time for these investments.
- European regulatory uncertainty affects investment decisions, particularly in carbon capture, green hydrogen, and sustainable aviation fuels (SAF).
- Non-EU countries (e.g., Balkans) may benefit from fewer regulatory pressures, allowing greater supply flexibility.



2. Operational Challenges & Efficiency Optimisation

Process Flexibility & Cost Management

- Refineries are enhancing operational flexibility to adapt to market fluctuations, but maintenance costs and supply chain constraints remain challenges.
- De-bottlenecking strategies are prioritised over high capital expenditure (CapEx) projects to improve throughput and efficiency.

Market Volatility & Workforce Stability

- Fluctuating EU policies (e.g., fossil fuel car bans post-2035) create long-term planning uncertainty.
- Security of supply, workforce retention, and operational resilience are key concerns amid economic shifts.

3. Technological Innovations & Decarbonisation Strategies

Carbon Capture & Green Hydrogen Development

- Carbon Capture & Storage (CCS) is being explored, particularly for steam methane reformers (SMRs), but high costs and policy uncertainty limit adoption.
- Green hydrogen investments are growing, with refiners considering electrolyzers to decarbonise hydrogen production.

Biofuels & SAF Expansion

- Co-processing bio-feedstocks (e.g., used cooking oil, ethanol-to-jet) is an emerging strategy for SAF production, though feedstock availability and costs remain concerns.
- Some refiners are integrating bio-based CO₂ conversion to enhance circularity.

Energy Efficiency & Digital Transformation

- AI-driven real-time optimisation (RTO) and digital twins are improving efficiency, lowering carbon emissions, and reducing operational costs.
- Digital twins are increasingly used to simulate operations before plant start-up, improving energy efficiency by up to 5%.

4. Strategic Market Entry & Investment Risks

Navigating Capital Investments

- Phased investment approaches are recommended to balance innovation with financial sustainability.
- Final Investment Decisions (FID) must be made 3–4 years in advance, requiring strong market foresight and risk assessment.

Competitive Positioning & Product Strategy

- High-value, specialised products (e.g., advanced petrochemicals, circular economy solutions) offer a more sustainable advantage over bulk commodities.
- Trading companies and feedstock-rich players (e.g., Aramco, Trafigura) are gaining refinery assets as traditional oil majors scale down European operations.

5. Regulation, Policy, and Geopolitical Factors

Policy & Investment Uncertainty

- The European regulatory framework for hydrogen, CCS, and SAF remains unclear, delaying major investment decisions.
- The risk of resource reallocation (e.g., shifting EU budgets towards defence rather than green energy) could slow energy transition projects. Could produce some positive upturn on conventional investments.

Geopolitical Shifts Affecting Trade & Investments

- US tariffs on Venezuelan crude, Middle Eastern production shifts, and military conflicts are disrupting global oil and chemical trade flows.
- China's dominance in battery and renewable supply chains continues to reshape European investment priorities.



6. Digitalisation & AI-Driven Refinery Optimisation

AI & Machine Learning in Refining

- AI-powered process optimisation is enhancing refinery efficiency, maximising yield, and reducing carbon emissions.
- AI-based real-time monitoring and automation are becoming critical for asset performance improvements.
- Cybersecurity concerns remain a major barrier to full AI adoption in refineries.

Digital Twin Applications in Energy Efficiency

- Digital twins, when combined with AI and first-principles modelling, improve operational efficiency and optimise asset performance before plant start-up.
- Case studies indicate 5% energy savings and better predictive maintenance outcomes.

Investment Challenges in AI & Digital Solutions

- Companies are moving beyond single AI use cases to integrated AI ecosystems, but investment prioritisation remains a key challenge.
- Industry leaders are clustering AI projects to ensure high-value return rather than scattered, lower-impact applications.

FINAL SUMMARY

The IDW 2025 Advisory Board discussions provided a comprehensive industry outlook, emphasising the critical transformations in refining, petrochemicals, and energy transition strategies. The meeting underlined the importance of a pragmatic, structured approach to navigating market volatility, regulatory shifts, and digital transformation while maintaining financial stability.

- Phased investment strategies are essential to balance profitability and transition goals in refining, SAF, hydrogen, and petrochemicals.
- AI and digitalisation are reshaping operational efficiency and decision-making, but investment prioritisation is critical.
- Regulatory and geopolitical uncertainty continues to impact trade, investment confidence, and supply chains.
- Strategic market adaptation is necessary to mitigate EU competition and explore high-growth regions.

NEXT STEPS FOR PRODUCERS

- Develop a phased transformation roadmap that integrates petrochemical expansion, biofuel scaling, hydrogen projects, and digital innovation—while ensuring near-term profitability.
- Prioritise digital enablers such as AI-powered optimisation and digital twins to drive yield gains, energy savings, and predictive asset strategies.
- Engage proactively with regulators to shape and align with emerging frameworks on carbon capture, hydrogen, and transition support mechanisms.
- Diversify geographic exposure by exploring new downstream opportunities in the Mediterranean and non-EU regions to mitigate EU market saturation and regulatory constraints.
- Continuously assess geopolitical and macroeconomic risks affecting hydrocarbon trade routes, feedstock availability, and refining economics.

By aligning market adaptation strategies, technological innovation, and policy engagement, refiners can ensure long-term profitability and industry resilience in the volatile downstream industry. The next steps outlined will be crucial in shaping future refining strategies, fostering innovation-driven growth, and maintaining a competitive edge in the global energy transition.



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Get involved and play your role in shaping the industry's future!

As the refining and petrochemical industries navigate an era of transformation, the need for innovative solutions, strategic adaptation, and technological advancements has never been more critical.

The 25th-anniversary edition of IDW presents a unique opportunity to share your expertise and views and showcase the success stories you have contributed to.

Do you have a solution or a success story about overcoming these pressing challenges?

Be part of this special edition and secure your speaking slot to share your insights with industry leaders. Join the conversation, be heard, and contribute to the next chapter of refining and petrochemical innovation.

We are calling for abstracts in the following areas:

- Asset Optimisation
- Quick Wins: Enhancing Energy Efficiency
- AI & Digitalisation Solutions
- Technology Solutions: Processes & Catalysts
- Refining & Petrochemical Integration
- Industry Challenges - Remaining Competitive & Resilient

Submit Your Abstract

Case studies and practical examples of technology applications will be favoured!

Apply to be a Panellist

Senior level executives from refineries & petrochemical companies will be prioritised.

Run a Discussion Table

Contact us to apply, discuss conditions, format and possible discussion topics.

Interested in attending IDW Conference 2025?

Register Now



Rumyana Dimova

Senior Events Director



Miro Cavkov

Technical Director
Downstream & Energy Advisory





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