

DOWNSTREAM CONFERENCE
Europe's Premier Technical Refining
& Petrochemical Conference
18-20 September | Istanbul, Türkiye

## POST EVENT REPORT

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ORGANISED BY

CO-HOSTED BY





### TABLE OF CONTENTS

Introduction	3
Honeywell UOP Seminar	5
NETWORKING FUNCTION	
Istanbul Bosphorus Cruise	6
IDW in Numbers	8
Highlights Video	9
#IDWConference in the Media	10
Sponsors & Exhibitors	12
Participating Companies	13
Key Speakers	14
KEYNOTE PRODUCER PANEL	
Refining Resilience:	
Navigating the Path to Responsible and Reliable Energy Supply Cruise	16
R&D PANEL DISCUSSION	
Scaling for Success	
Innovation Driving Growth & Impact	19
PETROCHEMICALS PANEL DISCUSSION	
A New Era for Petrochemicals	22
Thank You	24

### INTRODUCTION

From 18-20 September at the Istanbul Marriott Sisli, downstream industry leaders gathered to discuss how the sector can increase its longevity during today's turbulent environment, ensuring it's well equipped to provide the world with the energy it needs responsibly.

While there is no shying away from the transition, today's market volatility reinforces that the traditional hydrocarbon downstream industry is here to stay with the space and demand in the market, especially for integrated refineries to continue producing liquid fossil fuels. Proudly co-hosted by SOCAR Türkiye, across three days of interactive panels, seminars, engaging presentations and networking functions, we explored and discussed the latest opportunities and solutions available to the industry.

The conference kicked off discussing "Routes to Longevity". The downstream industry faces significant challenges as sustainability becomes increasingly vital on a global level. This session focussed on future-proofing the downstream industry, identifying routes that can be taken to ensure it remains profitable and resilient in the face of increasing societal pressures.

Presentations from SASA Polyester, Lummus Technology & Honeywell UOP gave us an insight into best practices to increase the downstream sectors longevity. Concluding the session, we welcomed leaders from Orlen S.A., Helleniq Energy, Socar Türkiye & McKinsey to the stage for our keynote producer panel focussing on "Refining Resilience: Navigating the Path to Responsible and Reliable **Energy Supply"**.

Read the full takeaways below.





The afternoon of day one took a focus on digitalisation. New and existing assets must be flexible and intelligent, supported by digital technologies to gain the full value of operational excellence and efficiently utilise every molecule. We welcomed informative presentations from Lummus Digital, Cognite, Socar Türkiye, Technip Energies, Seeq, Haverly Systems, Dynamics Scientific, IGS & **Tüpraş** who showcased the latest digital tools and technologies shaping future smart refining and petrochemical production, enhancing operational excellence in the downstream sector.

To conclude day one, before our delegates boarded for a cruise down the Bosphorus, Roland Berger Strategy Consultants led a line-up of distinguished leaders from Socar Türkiye, Tüpraş, Slovnaft & Eni who joined us to discuss "Scaling for Success: Innovation Driving Growth & Impact" and the role R&D, collaboration and partnerships play to foster innovation and drive growth.

#### Read the full takeaways below.

Day two opened with a focus on petrochemicals. With the global demand for petrochemicals continuing to rise, Roland Berger Strategy Consultants, Chevron Phillips Chemical & Axens presented the best practices and gave valuable insights into how refining and petrochemical integration can be leveraged to take advantage of this growth potential. To conclude this session, 3P18 Independent Consultants, SASA Polyester, Orlen S.A., Dow & Socar Türkiye took to the stage to delve into this "New Era for Petrochemicals".

#### Read the full takeaways below.



The afternoon took a technology focus, with residue upgrading technologies and catalysts remaining an essential cog in all modern and competitive downstream assets, Topsoe, Eni, Chevron Lummus Global & Ipco gave us insightful presentations exploring the latest catalyst advances and technologies that have the potential to assist companies in its re-configuration and evolution. Our presenters also covered the available technologies, configurations and approaches for profitable residue processing.

To bring the event to a close, with the revival of high-crude and gas prices, producers are reexploring energy and operational efficiency in order to provide the industry with guick wins, but have the low hanging fruits already been harvested or is there new potential? To tackle this question, Daily Thermetrics, Chevron Lummus Global, Tubacex & Angara gave excellent presentations covering how to optimise existing assets whilst ensuring profitability, taking into account maintenance costs and operational excellence.

### SEMINAR

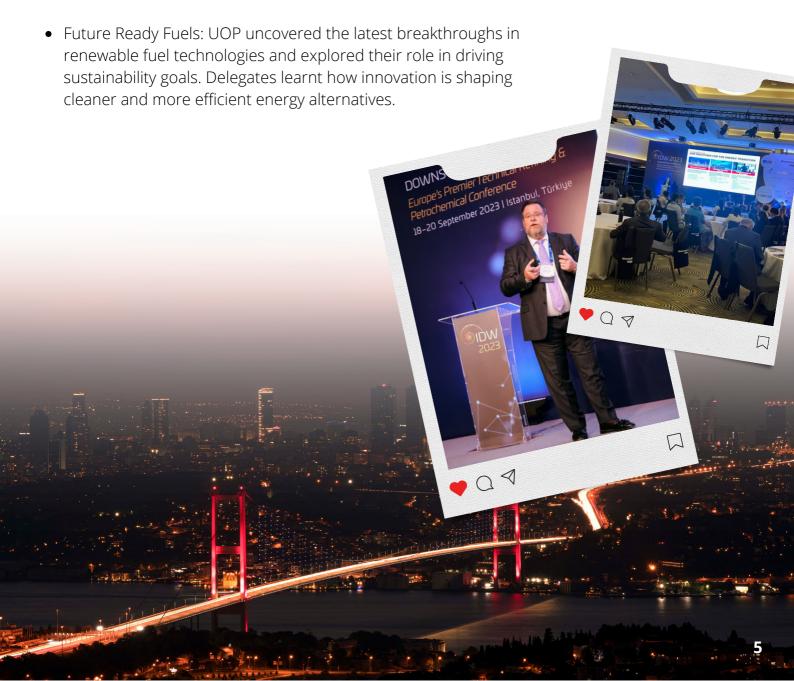
### Honeywell UOP

IDW 2023 began with a pre-conference seminar hosted by Honeywell UOP focussed on "Transforming the Future of Refining & Petrochemicals".

UOP experts showcased the cutting-edge insights and innovations shaping the future of the refining and petrochemicals industry. The seminar highlighted the pivotal shift from traditional fuels to high-value petrochemicals and renewable fuels as key strategies for the energy transition.

#### Highlights included:

• Pivot to Petrochemicals: UOP showcased the strategies and technologies driving the transition from conventional fuels to higher-value petrochemical products. Delegates discovered how this transformation is unlocking unprecedented opportunities and redefining industry dynamics.



#### **NETWORKING FUNCTION**

### ISTANBUL BOSPHORUS CRUISE

At EPC we know that a successful conference isn't just about the content in the classroom, it's the connections and collaborations that matter. That's why to conclude the first day of the conference, delegates joined us for networking drinks and local canapes whilst cruising down the Bosphorus taking in all the sights that beautiful Istanbul has to offer! The evening provided an excellent backdrop for making long-lasting connections and engaging in meaningful discussions.















SEMINAR

3 DAYS

11
HOURS OF CONTENT

10+
HOURS OF NETWORKING

42
SPEAKERS & PANELLISTS

250
REGISTERED DELEGATES

**80**PRE-ARRANGED MEETINGS



### HIGHLIGHT VIDEOS





**VIEW THE PHOTO ALBUM** 



### #IDWConference IN THE MEDIA



REPRESENTATION



Deniz Keles (He/Him)

Delivering sustainable solutions to assist with...

Thanks to Euro Petroleum Consultants for another great event full of inspiring content and constructive discussions. Was a pleasure taking part.



Hatice Merve Bilal, PhD · 1st

I had the privilege of attending an insightful conference that provided crucial aspects of the refining industry with my colleagues Seda Karahan, Ersen Ertaş from TUPRAS R&D. The sessions were packed with valuable knowledge on Residue Upgrading technologies, catalyst advancements, and strategies for profitable residue

The discussions on sustainable practices, circular feedstock processing, and decarbonization highlighted the industry's commitment to environmental responsibility.

The panel on innovation and growth was a standout moment. The importance of R&D in driving success and fostering collaboration and partnerships was a key takeaway.

Kudos to the organizers and speakers for sharing their expertise. Looking forward to contributing to the industry's evolution and sustainability! #Refining #Innovation #Sustainability #IDWConference #IDW2023



R&D Sustainable Refining Product Owner
3w • 6

there light at the end of the tunnel?

leading the discussion panel.

16,471 followers 3w • 🔊

global trends.

Piotr Baranowski · 2nd Development Projects Department, Director at ORLEN S.A.

#IDWConference #ORLEN #petrochemistry

I had the pleasure to talk about petrochemical industry

development as a response for the existing and future

How is the energy transition shaping the future of the

petrochemical industry? Is it the end for refiners or is

Thank you Suleyman Ozmen for the professional

**Euro Petroleum Consultants** 

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Daniel Jordan · 2nd Project Sales Manager at Honeywell UOP 3w • S

Attending the IDW 2023 conference in Istanbul and being reminded about the challenges of the transition to the future of refining and petrochemicals by Keith ouch, but also the technology solutions that oneywell can offer to help.

#uop #honeywell #transition #petrochemicalindustry



Malek Masri · 2nd Regional Director

Day 1 at #IDWConference talking about #HAVERLY #planning and #crude assay systems part of #Digitalization topics Meet us on Day 2 to know more at our Booth in



Fadi Mhaini MSc.

Managing Director, Middle East at Lummus Te...

Great interaction with customers and well attended conference

At one of Europe's largest professional conferences on the refinery and petrochemical business, we were

represented in an expert panel this week by Miroslav Mrzula, manager of product development and development

#IDWConference IN ISTANBUL WITH OUR

The challenge facing the energy industry worldwide is how to ensure that energy is secure, affordable and lowemission. More than ever, due to volatility in prices, politics and supply, downstream industry plays a key role in responsibly delivering the energy it needs to the

The topic of the panel discussion where our colleague spoke were

innovation and

resustainability of our current and future products.

How and whether the importance of R&D centers in the petrochemical business has changed and what it is like to "fight" on two fronts - to develop current projects while devoting energy, strength and resources to completely new focuses, these were the key questions in the discussion.

Photo: Slovnaft and Euro Petroleum Consultants

#OilGas #Downstream #Refinery #IDWConference



Ujjal Mukherjee

Chief Technology Officer, Lummus Technology...

Well-planned sessions with very relevant topics and great participation from industry.



Hana Smeckova · 1st Sales & Marketing Specialist at Lummus Technology 3w ⋅ Edited ⋅ ⑤

Intensive Day 1 of the #IDWConference 2023 for **Lummus Technology & Lummus Digital** 



C@ You and 88 others

3 comments



Subhasis Bhattacharya Technology Director at Chevron

Thank you EPC for organizing a resourceful conference, great participation, and for providing ample networking opportunities! Delighted to speak in this session and interact with a lively audience. Thank you, my copresenters and last but not the least, our calm moderator, #Stefan for leading the session!



Andrey Kostyukov · 2nd President and CEO @ Dynamics Scientific, Inc. | Entrepreneur

Exciting moments from International Downstream Week 2023 in Istanbul, where we introduced our cutting-edge digital reliability solution that immediately sweeps out sudden rotating and static equipment failures since the first day of operation. Special thanks to the conference hosts and everyone interested in learning more about the real-time diagnostic COMPACS system and SROMM - technology of Safe Resource-saving Operation and Maintenance of Machinery! Explore our event photo gallery for a glimpse into the fantastic atmosphere of the #IDW2023 meeting of the refining and petrochemical professionals, i.e.

**Euro Petroleum Consultants SOCAR Türkiye TUPRAS** SASA KIPICOfficial SOCAR Downstream Dila Gokce Kuzu Yasin Ersöz Şevval Köse Noyan Ercan CPEng -CMRP Ivan Stranovský Mohammad Hazem Alhajri Ja Al Tarqi Khalifa Kraem Hatem Zentani Talha Aksoy Melisa Zeynep Ersoy Ömer Yiğit Astepe Orkhan Seyidov Mübin Karagöz Chancelor Williams Jan Schipper Joseph Furtado Husain Al-Chalabi Afşin Kılıçarslan, (PMP)® Kenan AKYUZ Nesip DALMAZ #safety #reliability #refinery #refining

Andrey Kostyukov President and CEO @ Dynamics Scientific, Inc... analytics #pre intenance Thank you Euro Petroleum Consultants team

#usa for a such great event. An additional thanks for scheduling meetings within the conference that allowed to get more value!

DOWNSTREAM CONFE 100

Şevval Köse · 1st Aromatics Plant Production Engineer at Petkim, SOCAR 3w · Edited · 🔐

Petrokimya, rafineri, enerji endüstrileri geleceği, hidrojen teknolojileri ve hidrojene geçiş süreçleri, dekarbonizasyon gibi birçok alana ışık tutan IDW Teknik Petrokimya ve Rafineri Konferansı'nda emeği geçen herkese ve destekleri için SOCAR Türkiye'ye teşekkür ederim. #IDW2023

See translation

IDW 2023

Keith Couch · Following

Fuelling Progress! Unveiling game-changing ideas at IDW Downstream. #IDW2023 #HoneywellUOP

Honeywell UOP's Naphtha to Ethane and Propane roneywen uur s napnina to cinane and Propane enables petrochemicals producers a lower cost, lower carbon, biober value route to light olefins. It enables

craures perrocrienticals producers a lower cost, low Carbon, higher value route to light olefins. It enables refiners a profitable means of plusting from gasoling carbon, higher value route to light oletins. It enables refiners a profitable means of pivoting from gasoline.

Doing more with less... creating a more sustainable

DW 2023

Senior Director, Business Development & Integrated

Sanjay Lodha

Global Business Director - Tubacoat, Tubacex.

Thank you EPC for great conference and good session focused on technology Innovation, operational excellence, optimization and improved Reliability while maintaining throughput. Tubacex and Tubacoat technology play important role in these areas. Glad to speak at this IDW conference.



Paul R. Robinson (He/Him) • 2nd Energy science and technology 3w • Edited • ⑤

It was an honor to speak at this conference on behalf of Topsoe. #topsoe #hydrocracking #hpna

**Euro Petroleum Consultants** 16,471 followers

3w • 🕥

Highlights from #IDWConference: Amidst the global thrust towards renewable energy sources, Residue chnologies and Catalysts ...see more

Levent Atmaca, MSc. MBA... Strategic Business Development @ Dow | Driving Growth and Sustainabi... 3w • 🕲

Today, I shared Dow's energy transition strategy and the actions taken so far on decarbonization.

#IDWConference

#### Petroleum Consultants

Angara Global 1,545 followers 3w . 🕥

We are pleased to share that DecarbonX by Angara recently participated at IDW 2023, Europe's Premier Technical Refining & Petrochemical Conference, hosted in Istanbul, Turkey.

This event provided an exceptional platform for industry professionals to convene, exchange valuable insights, and deliberate on strategies to enhance industry efficiency while abating emissions.

Our CEO, Alex de Valukhoff, delivered a speech on Energy Efficiency and Decarbonization Opportunities in Refineries and actively engaged in a panel discussion as part of the Operational and Energy Efficiency: Maximizing Profits, Minimizing Costs Session. We're grateful to Euro Petroleum Consultants for organizing the event seamlessly and look forward to

#DecarbonX #IDW2023 #EnergyEfficiency #Sustainability #Decarbonization #Petrochemicals



+ Follow

Hatice Irem Güzel · 2nd President of SPE ITU Student Chapter | Assistant at ITU Cekirdek | Senior Student at Istanbul Technical U...

share the happiness of participating in #IDW2023 International Downstream Conference) organized by Euro Petroleum Consultants on 18-20 September

I am grateful to Ms. Laura McManus and Ms. Christina Romanova for their kind invitation to attend this valuable

It was an unforgettable and wonderful feeling to come together and have the opportunity to meet industry giants in the Downstream!

I hope to cross paths again with my esteemed professionals!

From lovely Istanbul

#IDWConference



Events Manager at Euro Petroleum Consultants Ltd

We've just concluded our #IDWConference this week in Istanbul and what an event it was! Thanks to our speakers, sponsors and delegates for making the event

Stay tuned for 2024 details ••







Sanjay Lodha · 1st ness Director - Tubacoat, Tubacex Spain Global Busi 3w • **⑤** 

It was pleasure to speak at IDW 2023 International Downstream Conference, In Istanbul, Turkey on future of Refining and petrochemical industry, biofuels, renewable energy, decarbonization. Tubacex and Tubacoat Spain brings solution to reduce CAPEX, OPEX, CO2 emission while increasing Reliability and Throughput of the refinery units.

#refining #petrochemical #energy #optimization #decarbonization #efficiency #engineeringsolutions

> Petrochemical Conference 18–20 September 2023 | Istanbul, Türkiye



36 followers

Another great event. We always love working



SULAK

İstanbul

Hüseyin ÖZTÜRK · 1st

SASA team

Investments Project Lead Engineer at SASA 3w • Edited • • IDW 2023 Refinery & Petrochemicals Conference







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### PARTICIPATING COMPANIES







































































































### KEY SPEAKERS



Adam Czyzewski Chief Economist



**Diomidis Stamoulis** Senior Director Strategic Planning of Industrial Activities & Participations



Güven Kaya Deputy General Manager



Ayça Arınan Strategy & Business Development Manager



Miroslav Mrzula Head of R&D

**ORLEN S.A.** 

**HELLENIQ ENERGY** 

**SASA POLYESTER** 

**TÜPRAŞ** 

**SLOVNAFT** 



**Bilal Guliyev** General Manager at R&D & Innovation Co.



**Fabio Montanari R&D Business Partner Energy Evolution** 



**Orkhan Aliyev** Strategic Planning Group Manager

Piotr Baranowski Director, Development Projects Department



**Levent Atmaca** Strategic Business Development Leader

**SOCAR TÜRKİYE** 

ENI

**SOCAR TÜRKIYE** 

**ORLEN S.A.** 

DOW



**Keith Couch** Head of Business Development & Integrated Projects



**Ujjal Mukherjee** Chief Technology Officer Licensing Manager





**CHEVRON PHILLIPS CHEMICAL** 



**Paul Robinson** Lead Engineer, Global Hydrocracking



**TOPSOE** 

**SOCAR TÜRKIYE** 

**HONEYWELL UOP** 

**LUMMUS TECHNOLOGY** 













#### KEYNOTE PRODUCER PANEL

# REFINING RESILIENCE:

NAVIGATING
THE PATH TO
RESPONSIBLE
AND RELIABLE
ENERGY SUPPLY

As the world shifts its focus towards sustainability, companies in the downstream oil and gas sector are at a crossroads. With the world's population growing and economies constantly advancing, there is an undeniable push for greener energy solutions. To discuss the evolving dynamics of the energy sector, **Deniz Sakalli**, Associate Partner, **McKinsey** led our keynote panel in Istanbul comprising of **Adam Czyżewski**, Chief Economist, **Orlen**, **Diomidis Stamoulis**, Senior Director Strategic Planning of Industrial Activities & Participations, **Helleniq Energy** & **Orkhan Aliyev**, Strategic Planning Group Manager, **SOCAR Türkiye**.

Whilst demand for refined products will remain robust due to increasing population and continuous global development, the elephant in the room remains, how do we reduce the carbon footprint of these products? The industry has started to dip its toes into the waters of decarbonisation, but we're still in the early days of finding scalable and sustainable technological solutions.



#### **KEYNOTE PRODUCER PANEL**

The intricacies of the downstream oil refining process, which has seen optimisation over several decades, means modifications to any segment can't occur in isolation without affecting the entire process. Transitioning automotive products to petrochemical feedstock, for example, might not be sustainable on a large scale.

#### REGULATION DISCREPANCIES

The lack of global consensus on transition regulations, with Europe leading the push for a cross-border adjustment mechanism (CBAM) and other regions lagging, has substantial implications for portfolio decisions. While emissions from scope 1 and 2 could be managed, the unregulated scope 3, even if adopted as a voluntary measure, defies traditional oil refining's purpose. The direction that national policies take, especially without global consensus on decarbonisation, will shape the industry's future. Given that different regions may adopt different vehicular power methods, from electricity to combustion engines, the fuel requirements will vary, leading to a change in global refining strategies. The overarching theme seems to be reducing traditional refining capacity and looking to repurposing instead, for example, through biorefining, and reinvention to offer recycled feedstock-based quality products.

Yet, even with rigorous climate policies, fossil fuels remain the backbone of the global economy. This scenario arises from the intrinsic global nature of climate change. Developed economies have managed to segregate emissions from economic growth, but developing economies lag due to limited capital availability, even when solutions like renewables become cost-competitive. An abrupt shift from fossil fuels can also lead to energy crises, highlighting the 2021 predicaments.



### THE ROLE OF THE NATIONAL OIL COMPANY IN THE CHANGING WORLD

Discussing the future of National Oil Companies (NOCs) vs. International Oil Companies (IOCs), it became apparent that 'standalone' refineries in Europe might become obsolete, similar to coal-powered plants. With the ambition to make transportation more eco-friendly, fuels from oil must decrease. Predictions for Central Europe show a sharp decline in oil demand by 2050, with other regions also poised to face challenges. However, integrated refineries that have already embarked on repurposing and redefining strategies still stand a chance.

NOCs play a pivotal role as major employers, and protecting these jobs becomes paramount during the transition. Companies like Orlen have diversified their portfolio, indicating a possible roadmap for others.

But this is not just about strategy, it's about innovation. Companies need to shift their thinking. Rather than simply selling externally sourced energy products, there's a pressing call to innovate and pioneer their own groundbreaking technologies. While immediate profitability might not always be in sight, the long game and industry-wide goals are what truly matter.

ed ergy

In summary, as the world edges closer to a sustainable future, oil downstream companies face complex challenges. The evolution of demand, coupled with technological and regulatory bottlenecks, will shape the industry's trajectory.

It's a time of change, adaptability, and foresight, with the decisions made today defining the energy landscape of tomorrow.



#### **R&D PANEL DISCUSSION**

# SCALING FOR SUCCESS INNOVATION DRIVING GROWTH & IMPACT

Driving growth and securing future competitiveness are two of the main challenges facing the oil and gas downstream industry. While the sector has a long-standing relationship with technology, the focus has largely been on purchasing licensed technologies rather than developing them in-house through research and development (R&D). This approach is beginning to shift as companies are engaging in a wide range of R&D projects to tackle new environmental challenges, namely CO2 emissions and plastic pollution. The industry is eyeing developments in plastic recycling, green hydrogen, and renewables as avenues for innovation. To delve into how companies can increase innovation and ensure success as they do so, we invited **Bilal Guliyev**, General Manager of R&D and Innovation, **SOCAR Türkiye**, **Ayça Arınan**, Strategy & Business Development Manager, **Tüpraş**, **Miroslav Mrzula**, Head of SN R&D, **Slovnaft**, **Fabio Montanari**, R&D Business Partner Energy Evolution, **Eni** and **Walter Pfeiffer**, Partner, Oil & Gas, Energy, Bio and E-fuels, **Roland Berger Strategy Consultants** to the stage at IDW in Istanbul.

#### THE RISING IMPORTANCE OF R&D

SOCAR's experience serves as a prime example of how integral R&D has become in the sector. The vertically integrated oil and gas company has leveraged R&D to create innovations in products, processes, and services, resulting in increased productivity, operational excellence, and customer satisfaction. Partnerships with governments and educational institutions have further enriched their R&D landscape, validating the notion that modern challenges require more sophisticated solutions built on expert knowledge and collaborative efforts.

R&D demands a different kind of agility. Companies are increasingly establishing separate units to foster innovation that work in close alignment with other business segments. Although R&D activities are inherently risky and capital-intensive, the need for skilled manpower and precise process management has never been greater. Solutions such as predictive maintenance for debottlenecking within production units are just one example of how R&D can serve immediate operational needs while also serving longer-term strategic goals.

#### **R&D PANEL DISCUSSION**

The transformation of traditional oil and gas refineries into biorefineries, specialising in the production of Hydrotreated Vegetable Oil (HVO) and Sustainable Aviation Fuel (SAF), serves as a compelling case study of how technological innovation can revolutionise asset management in the downstream industry. As the energy sector remains under pressure with the transition towards sustainable alternatives, a shift in research and development has become essential. ENI, for instance, has been a pioneer in this area, having initiated the research and development of biofuels from vegetable oils and fats over a decade ago. This groundbreaking work signifies not just an incremental change, but a complete rethink of established technologies, adapting them to new contexts and challenges. Traditional processes such as hydrotreating and catalytic reforming are being re-engineered to accommodate a variety of feedstocks, thereby laying the groundwork for the liquid fuels of the future.

In this rapidly evolving landscape, the search for suitable biofeedstocks was initially a challenge however, with extensive and ongoing research more than 400 different types of biofeedstocks have been identified, rigorously analysed, and evaluated based on their performance characteristics. This highlights not only the adaptive nature of the industry but also the continued commitment to R&D as we chart the course for a sustainable future.

The success of ecofining technologies further attests to the positive impact that converting traditional refineries into biorefineries can have.

### BALANCING CURRENT NEEDS WITH FUTURE GOALS

Despite the ongoing energy transition, fossil fuels remain a significant part of the energy mix and will likely continue to be so until 2030. As such, there is a need to maintain current assets and enhance their efficiency through R&D. Simultaneously, investments in new technologies like biofuels, green hydrogen, and zero-carbon electricity are critical for those planning a net-zero future. The role of regulators also comes into focus, especially in providing the necessary infrastructure for green technologies like hydrogen to be effectively utilised.







### CUSTOMER-CENTRIC APPROACH AND COLLABORATIVE INNOVATION

A notable shift in customer preferences has been seen in recent years. Slovnaft has witnessed that the demand for greener products has become more important than the price. This trend highlights the need for agile and flexible processes that consider customer needs when developing business targets and accelerating innovation. Additionally, the challenges associated with retrofitting refineries for new types of fuels exemplifies the need for collaborative efforts in technological innovation. Working with various stakeholders, from universities to startups, offers a holistic approach to R&D that is better equipped to address the complexities of the energy transition.

#### CHALLENGES, RISKS, AND THE ROAD AHEAD

The path towards a more sustainable and efficient future comes with challenges, especially around technology adoption. For instance, carbon capture and utilisation present a myriad of issues that defy a one-size-fits-all solution. These challenges underline the need for an all-around approach to R&D, that is grounded in a strong vision and collaborative endeavours. Companies must be willing to invest in non-proven technologies and be prepared for the possibility of no immediate returns. Budget allocations for R&D activities, especially those related to the energy transition, have to be thoughtfully managed.

The younger generation's interest in energy transition strategies adds a layer of social responsibility to corporate planning. Companies like Tupras are already separating their core business KPIs from R&D initiatives, emphasising the importance of sustaining profitability to fund future innovations.

In summary, as the industry undergoes massive changes, the emphasis on becoming more sustainable through innovative products and broader portfolios becomes paramount. Investment in R&D and talent is not just an operational requirement but a strategic imperative for companies aiming to stay competitive in this rapidly evolving landscape.



The global demand for petrochemicals continues to rise, emphasising the need for refining and petrochemical integration in order to take advantage of this growth potential. However, the evolving energy transition is reshaping product demands, the way it is manufactured and its circularity.

Led by Süleyman Özmen, Managing Director, 3P18 INDEPENDENT CONSULTANTS LLC, our distinguished panellists comprising of Güven Kaya, Member of the Board, SASA POLYESTER SANAYI A.Ş., Piotr Baranowski, Director, Development Projects Department, Orlen S.A, Levent Atmaca, Strategic Business Development Leader, Dow & Sultan Garayev, Corporate Strategy and Development Group Director, SOCAR Türkiye joined us to discuss this new era for petrochemicals.

#### IMPACT OF THE ENERGY TRANSITION

The energy transition is deeply affecting and shaping the future of the petrochemical industry in several ways. There is now an ever-growing demand for sustainable feedstocks and energy sources, including bio-based feedstocks derived from renewable recourses like biomass and agricultural waste, green hydrogen etc. Smaller refineries, or those not integrated with petrochemical complexes, have an opportunity now to become major feedstock providers for petrochemicals.

Electrification and hydrogen are also coming to the forefront. With petrochemical processes becoming more electrified, hydrogen is set to play a fundamental role in the industry's evolution. Companies are also exploring ways to capture carbon emissions from their operations and use them to produce valuable products such as chemicals and fuels. Industry is currently piloting the production of green hydrogen and co-processing of other feedstocks for example, that are being produced from chemical recycling, and by 2026 this is expected to become commercially available at large commercial scale.

Circular economy and chemical recycling technologies are being developed with the aim of repurposing waste plastics and other materials into valuable feedstocks, thus reducing the environmental footprint of petrochemical commodities. Companies such as Dow are working on innovating recycling technologies and designing products with recycling and reusability in mind, responding to the dual pressures of government regulations and emission reduction mandates.

#### **REGIONAL INVESTMENT & SELF-SUFFICIENCY**

SASA Polyester Sanayi A.S. has ambitious plans to become one of the leading players globally for polyester & polymer/olefins derivatives manufacturing. Türkiye has a vast amount of chemical imports (over 10 million tons) and SASA is investing directly in Türkiye to reduce the regions dependency on imports. SASA is committed to building, in multiple phases, a COTC complex to become a regional leader in polyesters, olefins, and aromatics derivatives production. With the COTC Project, SASA will supply its own feedstock to grow its chemical business (polyesters) and supply feedstock to Turkish producers and regional consumers. Türkiye provides an excellent location for such investments and projects due to the accessibility of raw materials, making feedstocks easier to acquire considering the close proximity to Middle Eastern countries, large internal market, competitive construction and availability of skilled labour

Investment in research and innovation is pivotal. Companies are investing in research to discover new catalyst technologies, new products, materials and processes that reduce energy consumption and emissions, circular economy, CO2 capture and conversion. To remain competitive within the petrochemical market, players need to implement state-of-the-art and efficient processes.

Orlen has recently invested into the expansion of the Olefin complex at the Plock refinery, signifying the largest investment in the European petrochemical industry in 20 years. These investments help to increase the share of specialty products in Orlen's petrochemical portfolio according to their strategy and are able to become a reality thanks to the recently opened research and development centre.

Collaboration is becoming increasingly common within the petrochemical industry. Companies are forming partnerships with technology providers, start-ups, research institutions and other stakeholders to share knowledge and resources. Joint ventures and acquisitions are proving critical for meeting industry targets, and these are the future for petrochemical investments, ensuring risks and capital is shared and optimising spending, while bringing complementary resources, capabilities and access to market.

In summary, petrochemical companies are looking to invest in upgrading their assets with improved new technology processes, accessing alternative/renewable feedstocks and produce new products with recyclability attribute/minimise single use plastics to align to sustainability goals and reduce their footprint while meeting market demand and new environmental legislation. Developing new partnerships and new business models to align and adapt to changing market dynamics is crucial.



### THANK YOU!

A huge thank you to all of our speakers, sponsors, and attendees who joined us and contributed to the success of IDW 2023. We will continue the discussions next year...

#### **SAVE THE DATE!**

#### 23-25 September 2024 | Warsaw, Poland

+44 (0) 20 7357 8394



europetro.com/idw



**Christina Romanova Events Manager** christina\_romanova@europetro.com

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