



IDW 2022

INTERNATIONAL DOWNSTREAM WEEK
29-30 September | Dubrovnik

CO-HOSTED BY



POST EVENT REPORT

HOSTED BY EURO PETROLEUM CONSULTANTS
EUROPETRO.COM/IDW

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The EPC IDW 2022 has been an awesome experience. It was a glorious return to in person opportunities to meet colleagues from around the industry. The presentations were one of the highest quality sets of presentations, that I have seen at a conference in quite a while. The group of professionals that was assembled here was truly leadership level within the European organisations.

”

Keith Couch

Senior Director Global Technology Sales & Integrated Projects

HONEYWELL UOP

INTRODUCTION

Due to the impact of the global pandemic and after two years of virtual events, the long awaited in-person IDW took place in Dubrovnik on the 29th & 30th of September.

Now in its 22nd edition, the event was uniquely positioned to focus on 'conventional' downstream refining & petrochemicals by discussing: challenges for maintaining existing assets, product diversification, shifting to petrochemical production, refining & petrochemical integration technology solutions, upgrading residues, optimising asset energy consumption, and implementing digitalisation tools.

IDW once again connected senior downstream operators with leading technology & solution providers, updating them with the latest technologies, best practices and solutions to help their plants remain competitive, profitable and sustainable in the current challenging times.

THE CO-HOST

IDW 2022 was co-hosted by the multinational oil & gas company - MOL Group. MOL Group is also the parent organisation of the Croatian INA Grupa and the Slovakian Slovnaft.

MOL Group is a leading integrated Central Eastern European oil and gas corporation. It has operations in over 30 countries and employs 25,000 people worldwide.

MOL Group's Downstream division consists of different business activities that are part of an integrated value chain. It owns 3 refineries and 2 petrochemical plants and holds a leading position in the petrochemical sector in the Central Eastern Europe region.

MOL Group regularly supports the IDW events by sending large delegations and speakers each year. Its subsidiary INA GRUPA has co-hosted IDW several times in the past.

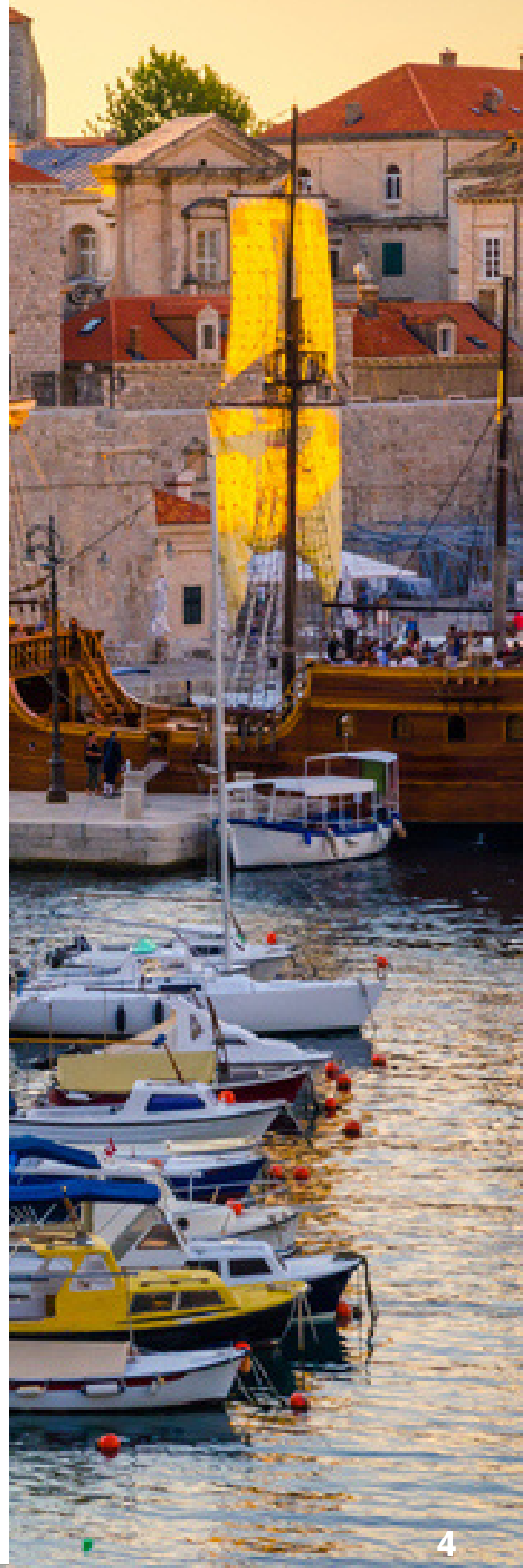
At IDW 2022 we had the pleasure to welcome Mr. Gabriel Szabó, Executive Vice President of Downstream, who opened the event with a Keynote presentation on the MOL GROUP's 2030+ Strategy.

Two more presentations from MOL Group and INA Grupa were included in the IDW 2023 programme, the group representatives took part in the panel discussions during the event.

The Gala Dinner at the end of the first day was proudly hosted by INA Grupa.

“MOL Group was honoured to co-host IDW in 2022, where many great minds gathered to think together how to drive the Downstream industry during the current challenges and global trends.”

Mr. Gabriel Szabó
Executive Vice President of Downstream
MOL GROUP



THE AGENDA

The backbone of IDW, one of the longest-running downstream conferences in Europe, is the industry recognised strong, high-quality and informative agenda.

A variety of strategic and technology related topics were covered, arranged in dedicated sessions & complemented by interactive panel discussions, case studies, and advanced techniques – all helping downstream oil operators navigate the current transition period by adapting their production assets.

Scroll down to read the detailed agenda takeaways as well as the list of the respected speakers.

THE VENUE

IDW 2022 was held in the **Rixos Premium Dubrovnik Hotel** on the beautiful Adriatic coast - just a stone's throw away from the historic town.



THE DELEGATES

Bringing together the downstream community has always been IDW's primary objective and the 2022 edition was no exception. It attracted a great mix of high level industry professionals from major European Energy companies (oil, gas & petrochemicals), leading technology, equipment and solution providers and industry associations.

More than 40% of attendees were senior representatives from producers/end-user companies:

- Chief Technology Officer
- VP Downstream
- VP Business Development
- Senior Vice President
- GM Refinery Project Process
- Head of Strategic Refinery Planning
- Manager Development Projects Department
- Chief Strategy Officer
- Director, Alternative Fuels Departments
- Head of Production Engineering Office
- Head of Energy Efficiency Department
- Refinery Manager - Production & Energy Management
- Director of Technology Development
- New Ventures Senior Representative
- Head of Energy Development Department
- Head of Production Engineering Office
- Director of Production Efficiency & Technological Support
- Director of Refining & Marketing
- Fuels Department Manager
- Digital Transformation Group Manager

Scroll down to view the participating companies or contact us to receive the delegate list.



THE NETWORKING OPPORTUNITIES

A main feature of this year's edition was the pre-arranged 1-2-1 meetings for our sponsors.

Over the course of the 2 days, a total of 77 meetings successfully took place. This was incredibly well received and appreciated – helping our sponsors and end-users to successfully and effectively connect.

In addition, delegates enjoyed a number of networking opportunities such as the Networking Coffee Breaks & farewell reception sponsored by **Sulzer**, the Lunches sponsored by **HTI** and a memorable Gala Dinner sponsored by **INA GRUPA**.



**VIEW THE FULL
CONFERENCE GALLERY**



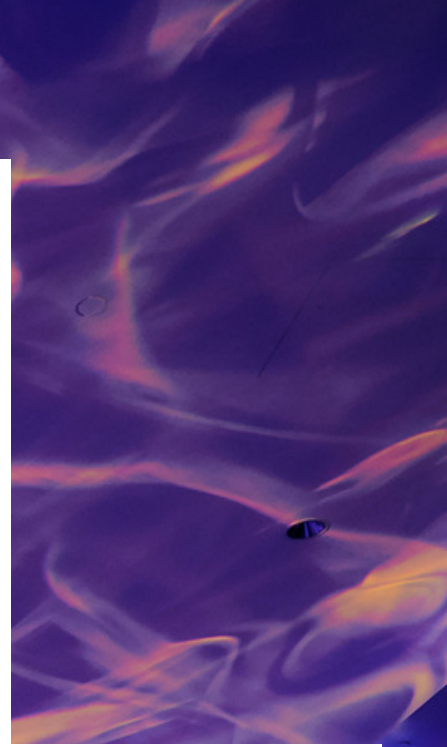
INA GRUPA GALA DINNER



The Gala Dinner was kindly sponsored by INA GRUPA.

A combination of live Jazz music, a great variety of cuisines and a candle-light dinner have all contributed to a memorable evening of informal networking.





#INTERNATIONALDOWNSTREAMWEEK IN THE MEDIA



Jessica Meier · 2nd
Business Development / B2B Sales / Strategic Planning / Licensing / Contr...
2w · 🌐

+ Follow

Bob Poteet, WIKA/Gayesco's Business Development Director just presented at the IDW (International Downstream Week) 2022 in Dubrovnik: Are you really getting what you think you are getting in furnace scanning? #energyefficiency #Furnac



Investment Office of the Presidency of...
38,305 followers
2w · 🌐

Investment Office of the Presidency of the Republic of Türkiye Sectoral Activities Unit Manager **Mustafa Erdoganmez** was featured as a panelist at the "Downstream Profitability's Strategies - Focus on Türkiye" session of the International Downstream Week (IDW 2022) held in Dubrovnik by the **Euro Petroleum Consultants Ltd.**

The panel centered on Türkiye that is home to several exciting projects and developments and is well positioned to become a hub for new business, collaboration, and partnerships in the refining, petrochemical and energy industry.

Türkiye will be the next destination of the International Downstream Week that connects the refining and petrochemical community to address, exchange, and identify solutions to the pressing questions and challenges faced by the downstream sector.

#InternationalDownstreamWeek #oilandgas #petrochemical #energy #Türkiye

NexantECA, Energy and Ch... + Follow
3,983 followers
2w · Edited · 🌐

We are delighted to be once again be part of #InternationalDownstreamWeek as guest speakers, and member of the Keynote Panel. We hope everyone attending has both an enjoyable as well as rewarding week.

Jesse Vilja · 2nd
Aviation Fuels Associate & Project Manager at Neste
2w · Edited · 🌐

Thankful for the opportunity to deliver a speech on The Benefits and Potential of Sustainable Aviation Fuel at the #InternationalDownstreamWeek in Dubrovnik. The interest towards SAF is evident in the downstream industry. Also thank you to my fellow speakers, great insights! #aviation #saf

#petrochemicals #energy #petrochemicalsultants Ltd

its Ltd

Keith Couch · 2nd
Senior Director, Business Development & Integ...
2w · ...

EPC - Great conference! As a world, we are a bit past the stage of "Isn't it great to be back in person?!" The speakers were hungry to get down to business. The presentations were clear, polished and executed well. Nice job on the agenda, venue, execution and compilation of content. Thank you for a great 2 days.



ZymeFlow
2,855 followers
1w · Edited · 🌐



We had an incredible time at the "International Downstream Week" in Dubrovnik, Croatia, where **Sinan Mutlu**, Director of Business Development ME, Africa and Europe, and **Ka Siang Chua**, VP of International Sales, met with clients and colleagues to discuss about the downstream sector and its decon challenges.

Thanks to **Euro Petroleum Consultants Ltd** for an amazing event, and to everyone who came by our booth!

#europe #event #businessdevelopment

Mike Bell · 3rd+
Project Sales Manager at Honeywell UOP
2w · 🌐

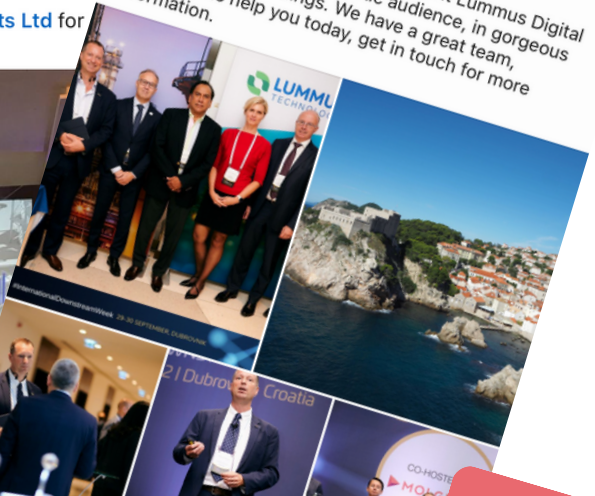
At #InternationalDownstreamWeek with **Keith Couch** and **Eeman Kris** presenting UOP's decarbonisation solutions.

Many thanks to **Euro Petroleum Consultants Ltd** for organising the great event!



Oleg-Serguei Schkoda · 2nd
Digital Transformer - Oil & Gas & Energy Transition former Expert @ McKinsey & Company
1w · 🌐

Last week I had the chance to present Lummus Digital solutions in front of a fantastic audience, in gorgeous Dubrovnik surroundings. We have a great team, dedicated to help you today, get in touch for more information.



MOGAS Industries, Inc.
11,259 followers
2w · 🌐

Greetings from International Downstream Week 2022 in Dubrovnik, Croatia! Our team is excited to discuss the latest developments in the downstream sector. Thank you so much to **Euro Petroleum Consultants Ltd** for hosting a great event!



VIDEO HIGHLIGHTS



**VIEW THE VIDEO
ON YOUTUBE**



THANK YOU TO ALL OUR SPONSORS

CO-HOSTED BY:  **MOLGROUP**



PARTICIPATING COMPANIES



KEY SPEAKERS



Gabriel Szabó
Executive Vice President
of Downstream
MOL GROUP



Damien Valdenaire
Science Executive
CONCAWE



Ujjal Mukherjee
Chief Technology Officer
LUMMUS TECHNOLOGY



Sanja Jakovac Šepić
Manager of Production & Energy
Management in Rijeka refinery
INA GRUPA



Keith Couch
Senior Director - Global Technology
Sales & Integrated Projects
HONEYWELL UOP



Nicoletta Panariti
Head of Licensing
ENI



Maurice Korpelshoek
Vice President, Business
Development
LUMMUS DIGITAL



Walter Mirabella
Head of Global Fuels Team
SUSTAINABLE FUELS



Walter Pfeiffer
Partner, Oil & Gas, Energy,
Bio & E-fuels
ROLAND BERGER
STRATEGY CONSULTANTS



Jesse Vilja
Associate, Aviation Fuels
NESTE



Andrew Inglis
Vice President of Energy and
Fuels, EMEA
NEXANTECA



Kanan Mirzayev
Chief Strategy Officer
SOCAR TURKEY



Oleg-Serguei Schkoda
Senior Director,
Oil & Gas
LUMMUS DIGITAL



Mustafa Erdönmez
Sectoral Activities Unit Manager
PRESIDENCY OF THE REPUBLIC OF
TÜRKIYE INVESTMENT OFFICE

STRATEGIES AND PATHWAYS FOR DOWNSTREAM PROCESSING & PETROCHEMICAL PROFITABILITY



The conference opened with our traditional keynote session. This year we had the pleasure to have presentations from leading representatives of the downstream community:

- MOL Group
- NexantECA consultants
- Lummus Technology

We were delighted to welcome **Mr. Gabriel Szabo**, the **Vice President for Downstream** at **MOL Group**, who presented MOL GROUP's 2030+ strategy.

Mr. Szabo highlighted the downstream transformation and integration acceleration plans including fuel-to-chemicals conversion while at the same time beginning to reduce motor fuel yields and outputs. However this reduction in transportation fuels is gradual - simply because, there remains millions of ICE powered vehicles on the roads-requiring available and affordable motor fuels. MOL's key direction is to become a digitally-driven consumer goods retailer and clean mobility services provider. Looking at downstream assets, operators plan to increasingly rely on implementing available and suitable Industry 4.0 solutions. Machine Learning, AI, AR and VR are just some of the available solutions from the digital technologies' portfolio, from which the group can benefit. The major priority remains the focus on operational efforts towards increasing energy efficiency and maintaining stable and profitable margins.



AGENDA TAKE AWAYS - DAY 1



Andrew Inglis, Vice President of Energy and Fuels, EMEA of NEXANT ECA, provided a short and long-term outlook of the global refinery products demand, as well as the additional strategies and pathways for refineries to remain competitive. The downstream oil markets were compared to a “rollercoaster ride”, due to the vibrant ups and downs in the industry. For example, from 2021 to mid-2022, refined product markets were dominated by the underlying post COVID supply tightness plus the additional constraints coming from the Russia and Ukraine conflict, leading to the re-routing of crude supplies i.e. Urals to China, India and Africa, instead to Europe, while US, ME and other crudes have been exported to Europe, instead of Asia. As for the 2nd half of 2022, markets have been affected by signs of a possible global recession and a drop in demand looms – US gasoline sales are lowest since 1996 and China’s slowing economy is hitting naphtha stocks.

Highly integrated refineries are building inventories of products, which are less impacted than conventional refinery products. However, major challenges still remain – flat overall demand, increasing Carbon emissions cost, global volatility, increased demand for higher quality lube oils from Group III specifications, as well as the present IMO 2020 0,5% Sulfur cap on the marine fuels.

Mr. Ujjal Mukherjee, Chief Technology Officer of Lummus Technology opened his Technology Keynote presentation by confirming the “Roller Coaster” analogy made by Andrew, adding additional insight on the impact caused by the COVID pandemic and the war in Ukraine. The topic of energy security is very much at the forefront of discussions. We have seen a forced rethink of certain sustainability goals. Fossil fuels, such as coal, LNG and diesel remain on the agenda. Coal will continue to power India and China for the next five decades. In Europe, diesel prices hit a record over gasoline and it is expected that in 2023, diesel shortages to become more severe, after the announcement that Russian diesel and refined products exports will be banned. There are certainly some challenging times ahead.

Note: Full presentations are accessible for the conference attendees through the proprietary EPC event app. Those who have not attended can purchase access to the presentations by contacting info@europetro.com



AGENDA TAKE AWAYS - DAY 1

KEYNOTE PANEL DISCUSSION:

"AIMING TOGETHER FOR A POSITIVE CHANGE"

The keynote presenters took part in this insightful panel, where the topics from the presentations were expanded upon.

Key questions were addressed:

- what are the advantages of operating an integrated refinery
- what are the current available strategy and technology roads to take
- importance of the reliable connection between production assets and onsite workforce have been discussed.

The interesting and highly passionate discussion was led by our longstanding moderator **Walter Pfeiffer, Partner, Oil & Gas, Energy, Bio & E-fuels** at **ROLAND BERGER STRATEGY CONSULTANTS**.



ENERGY EFFICIENCY IN DOWNSTREAM ASSETS: FOCUS ON REFINERY HEAT GENERATION



CHAired BY:

BRETT SILVERMAN
SENIOR
COMMERCIAL
DIRECTOR
HTI

The session opened with a case study from the largest fuel producer in Sweden, **Preem**, in tight collaboration with **Integrated Global Services**. Application of ceramic coatings on refinery instrumentation such as heating, reforming and cracking pipes leads to great improvements in terms of energy efficiency and flow optimisation. The topic of ceramic coatings was also the focus in the paper from **Tubacex Group**, sharing further details and industrial case studies from different refinery units around the globe.

The three main pillars, parameters which every operator has to optimise in refinery remain unchanged – these are temperature, pressure and feedstock flow. **WIKAGAYESCO**, shared with the audience the real importance of properly reading and understanding data coming from the refinery temperature measurement equipment and sensors. Special mention was made to thermocouples required to operate and tune refinery heaters.

Last but not least, **ZymeFlow**, the chemical decontamination specialist, brought the session to a close with insight on how proper heat exchanger maintenance can lead to improved energy efficiency. Online solutions for reducing heat losses during normal operations, emergency cleaning practices in between of turnarounds and preventive best practices were also shared with the audience.



DIGITAL TOOLS AND APPROACHES FOR ACHIEVING DOWNSTREAM EXCELLENCE

CHAIRERD BY:

**MAURICE
KORPELSHOEK**
VICE PRESIDENT OF
BUSINESS
DEVELOPMENT
**LUMMUS
TECHNOLOGY**

This lively session dedicated to digital tools and operator solutions for downstream production excellence was opened by Lummus Digital, who presented a case study from **Haldia Petrochemicals**, where the accelerated digital transformation has already brought operating improvements, resulting in approx. 10% EBITDA increase.

Daily Thermetrics shared their expertise on how advanced temperature measurement instrumentation can provide a cutting-edge radial temperature profiling in energy intensive processes (e.g. hydrotreaters & hydrocrackers), ensuring refinery ROI is protected, output is achieved and catalyst service life is optimised.

STORK focused on the important topic of unplanned downtime during refinery maintenance activities and turnarounds executions. Looking at how this could be avoided by applying the right methodology. Risk management, asset strategy and performance monitoring are crucial for the modern refiner and any approach should be data driven. Prescriptive, predictive and real-time condition monitoring are a must in order to ensure high levels of reliability.



DRIVING REFINERY EVOLUTION

The last session of the first day addressed the historical refinery evolution and the next steps and paths open to operators. **Honeywell UOP**, opened the session by highlighting the different approaches for lowering carbon intensity of existing refinery assets. A top priority for many producers. Key questions include how can refiners remain competitive, in what direction can they grow, how to diversify their products portfolio, and how to get better asset utilisation. The methodology presented at IDW is the industry recognised UOP's Six Efficiencies (E6) framework.

Sulzer Chemtech focused on the core crude distillation process, where implementing advanced refining techniques can unlock further economical and emissions reduction potential. One such option for upgrading is installing the Divided Wall Columns, a static equipment upgrade, which combines the process possibilities of two conventional rectification columns in one shell. Such CDU modifications are well aligned with the "Fit for 55" package, and yes, the upgrade is applicable to existing units.

CHAIRD BY:

**DAMIEN
VALDENNAIRE**
SCIENCE EXECUTIVE
REFINING
TECHNOLOGY
CONCAWE



AGENDA TAKE AWAYS - DAY 1

The largest producer of sustainable liquid fuels, **Neste** from Finland, took the floor next to share with us the potential and the real benefits of Sustainable Aviation Fuel, SAF. Aviation, as a hard-to-abate sector, will remain dependent on liquid aviation fuels. However, aviation must adapt to the current landscape and future plans, this is where SAF comes into play. As per the current standards, SAF can be blended into fossil jet fuel by up to 50 vol-%, while the blends are 'drop-in' and are part of the solutions for the "Fit for 55" package of emissions measures. Repurposing, retrofitting, and redesigning existing assets are key terms that will be very present within the downstream community.



Repurposing, retrofitting, and redesigning existing assets are key terms that will be very present within the downstream community

The fourth presentation of the session, presented by **Fluor** highlighted this fact. An inside look and case study from **Bayernoil** on how the producer has boosted its operational margin by repurposing two core refinery units. First – an existing reformer transformed into isomerisation unit, where the refiner's main goal was to produce high-quality isomerate, which was then used as an octane booster for in the final gasoline pool. Second – revamp of a mild hydrocracker, leading to deeper conversion as well as higher feedstock flexibility.

SESSION & PANEL DISCUSSION

THE ROLE OF LIQUID FUELS FOR MAINTAINING CLEAN AND SUSTAINABLE MOBILITY, TRANSPORT AND AVIATION

PRE-PANEL KEYNOTES & PANEL SCENE SETTERS

Day 2 of IDW 2022 started with a keynote presentation from **Damien Valdenaire**. Damien shared **CONCAWE's** scientific refining view and the outlook for European fuels manufacturers, including:

- the current challenges
- future missions
- short- and long-term strategies
- how to best identify & prioritise actions

Today, the main goal for refiners is to reduce the energy intensity of their production plants and at the same time to rethink their production portfolio. Technology is readily available, frameworks and goals have been set, but the transition pace has not yet been met. This means any additional efforts made by the producers will help to get closer to the announced climate goals.

These efforts include the electrification of assets including the use of green energy, optimal refinery tuning, feedstock diversification and implementing of low-carbon solutions.

The key message is that an efficient & transformed refinery will be considered an asset in providing solutions for the climate goals, whilst at the same time remaining competitive and socially responsible as a provider of energy in the form of liquid fuels (diesel and its drop-in alternatives);



AGENDA TAKE AWAYS - DAY 2



The liquid fuels topic was further discussed in a dedicated panel session accompanied by 2 scene setting presentations. In his panel scene setter **Walter Pfeiffer**, outlined the new essential role that refiners now have as a backbone for liquid fuels. In his presentation three main “ABC”s were covered:

A - the security of supply, the top priority in the modern energy history

B - the liquid fuels backbone role for the two pillars of defense-military and as main player in the lower carbon future

C - the implications on government and key-decision making levels.

In the second presentation, **Sulzer Chemtech** examined one of technologies for renewable diesel production. The technology is known for its production flexibility and the ability to be finely tuned to meet regional requirements, meaning that cold flow properties, the winter and arctic constraints, from first generations biodiesels have been eliminated.

The need for performant technologies is here - current policies are driving demand and innovations must be implemented in order to meet it



Note: IDW attendees can access the high quality presentations & shared insights through the proprietary EPC event app. For those who have not attended IDW it is possible to purchase access by contacting info@europetro.com

AGENDA TAKE AWAYS – DAY 2



PANEL DISCUSSION

The initial panel line-up of Concawe, Roland Berger Strategy Consultants and Sulzer Chemtech was joined by **INA Grupa**, **Neste** and **Sustainable Fuels** to provide more insight on the key factors presented in the scene setting papers.

First and foremost all panelists agreed that now and in the foreseeable future, liquid fuels will continue to be a driving factor in many aspects of our daily lives – these include personal mobility, commercial, heavy duty, water and air transport.

Even in an electrified future, the demand for liquid fuels will still be present, transformed - yes, but still present.

A scenario how the lower carbon liquid fuels will help the society to reach the climate goals was put forward, where the sustainability of hybrid power-trains will depend on the availability of fuels.

It has been commented, that fully electric vehicles can be great for urban areas mobility, where the power availability and grid allow this, but it is not the case when we speak about long-distance travels. Hybrid vehicles running on lower carbon fuels are very much part of the climate goal solutions.



Aviation, considered as a hard-to-abate sector due to the long lifespan of airplanes and cost of solutions, was also discussed and it reaffirmed the importance of fuels availability, since electrification is not an option for air transport. Further to the discussion the panel covered variety of topics such as latest production trends, supply chain and feedstock diversification, while the final conclusion was made – liquid fuels are here to stay, transformed and properly adapted to the climate goals and scenarios, they are a long-term solution for fueling global mobility.

BOTTOM OF THE BARREL

This session was dedicated to the bottom of the barrel - dealing with heavy residual streams and converting them into lighter higher-value products. The audience was privileged to hear an update from **INA Grupa** on their key project at the **Rijeka Refinery**, the new delayed coking unit.

CHAIRER BY:

JESSICA MEIER
LICENSORS & FEED
ENGINEERING
DIRECTOR
WIKA



The project is on progressing as planned and once commissioned, the unit will allow the refinery to achieve higher flexibility in terms of feedstock processing and will help to eliminate low-value fuel oil products.

Next in the session was a hybridco-presentation case-study from **HTI** and **LUKOIL NEFTOCHIM BURGAS**, showcasing an enhanced EB flexibility at the production facility by implementing HCAT system. Unfortunately we experienced some technical difficulties with the connection with Burgas. A new recording of the EB presentation will be provided through the EPC's IDW channels. The IDW team will travel to Burgas to record the LNB speaker and to provide you with the valuable insight of their H-OIL unit breakthrough.

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AGENDA TAKE AWAYS - DAY 2

We were pleased to welcome **Chevron Lummus Global** and **ENI** to present their partnership, highlighting the merits of combining resources and know-how to obtain positive results. One of the benefits of integrating together the EST and Isocraking processes is the increased energy efficiency, thus reduced greenhouse gas emissions.

Insights on the status of heavy oil processing in the current energy transition era, sharing the new potentials of the delayed coking technology, was the focus from **WOOD**. A real case scenario, where the selective-yield delayed coking technology (SYDECSM) can be adapted into existing DCU assets – leading to zero fuel oil production. Cokers adapted with this technology, unlock their potential to process various types of feedstocks including recycled plastic, rubber, renewable pyrolysis oil, and used lubricants.



Last but not least, **AVISTA OIL**, presented re-refining opportunities for spent motor oils. Re-refining of spent oils is a circular economy and closed-loop business, for generating and reusing motor oils. This type of circularity requires regulation that clearly defines the rules and documentation for handling used oils.



PETROCHEMICAL TECHNOLOGIES & INTEGRATION

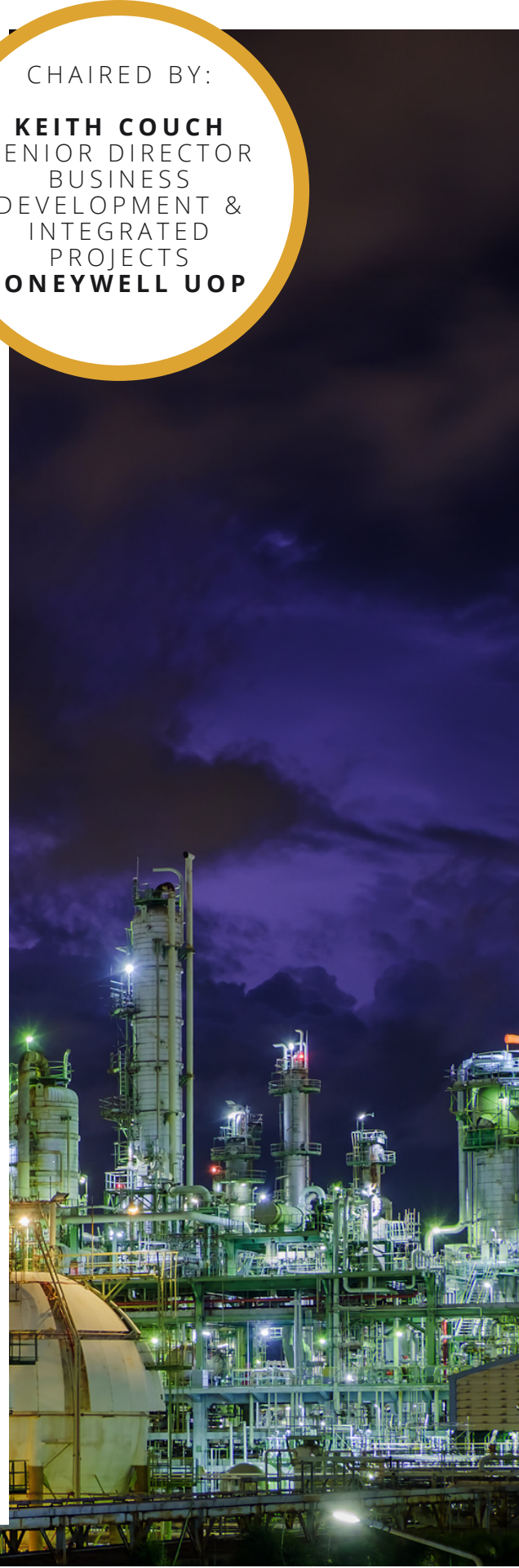
The importance of building petrochemical blocks for the downstream sector was the focus for the penultimate session – looking specifically at production and integration. Our co-hosts **MOL GROUP**, shared insight into the company's way forward for downstream transformation – moving from motor fuels towards petrochemicals production. Looking at the mid-term, refinery survival options in a competitive fuel market can be monitored and shaped through the digital transformation of the DS business. Being able to track production behavior, will also help move towards carbon neutrality, whilst maintaining good levels of profitability. Sulzer Chemtech, shared with the audience a route for maximising profitability with an advanced FCC Naphtha process -->converting gasoline streams to petrochemical blocks.

The GT-BTX+ process can be implemented in an existing FCC unit and can be tuned to eliminate RON losses, allowing to convert further the FCC gasoline to BTX aromatic blocks and increase propylene yields.

To round off the session **Lummus Technology**, provided the latest update on the proprietary Single Regenerator Dual Catalyst, the SRDC fuels-to-chemicals system. Implementing such a system increases the FCC/RFCC unit flexibility, maximises olefins yield and allows segregation of renewable olefins. Processing of pyrolysis oils and other renewable feedstock in the SRDC unit results in improved refining margins, while addressing renewable olefin demand. that the session take-away is that flexible fuels to chemical technology options will be needed to meet the future fuel/chemicals demand projections.

CHAIRER BY:

KEITH COUCH
SENIOR DIRECTOR
BUSINESS
DEVELOPMENT &
INTEGRATED
PROJECTS
HONEYWELL UOP



TURKIYE FOCUS: STRATEGIES TO REMAIN COMPETITIVE

The closing panel of IDW 2022 was dedicated to Turkiye – selected as the location for IDW 2023 – the panel focused on the strategies helping Turkiye's downstream producers stay competitive in the current and short-term scenarios, evolve and reach their objectives through new developments, investments, strategies and projects. We had the pleasure to welcome **SOCAR Turkiye, The Investment Office of the Presidency of the Republic Turkiye** and **Honeywell UOP** to be part of the panel - moderated by EPC.

As a principal player in the region, SOCAR Turkiye, is expecting refining demand to peak between 2024 and 2027. These expectations are largely based on the market penetration of electric vehicles, followed by the evolution of internal combustion engines: increased efficiency, coupled with the introduction of sustainable renewable fuels -projections show 10% of the global fuels demand by 2040 – all of which will create new opportunities for producers. Any excess capacity can be shipped to Middle East and Asia - this is currently a growing trend. In order to stay competitive post 2027, it will be critical for European and Turkish producers to rationalize their outputs in order to balance and maintain profitable margins. Middle East and Asian refineries are expected to be more resilient by further expanding their capacities, due to the favorable advantage of local demand in these regions.

All the above mentioned factors mean that traditional refining economics are likely to become more challenging, due to the declining demand, where older and less complex refineries will not be in a favorable position and will face the threat of closure.

SOCAR Turkiye sees two major levers for complex and integrated companies, which can be adjusted for successful and resilient operations. Firstly, the design of refinery systems needs to be flexible and future-proof, allowing for higher yields of LPG, Naphta and basic gasoline components – this is in order to meet the rising global chemical demand. At its core, the second parameter is also based on production flexibility, and this has allowed STAR refinery to redirect jet fuel streams to diesel production, which during the covid pandemic allowed the facility to maintain healthy margins.

CHAired BY:

**STEFAN
CHAPMAN**
VICE-PRESIDENT
**EURO PETROLEUM
CONSULTANTS**

AGENDA TAKE AWAYS - DAY 2

Since the internal combustion engines (ICE) auto park will remain present, the company is also looking into expanding its sustainable fuels capacity by 80% come 2030 and this will be focused mainly on hydrotreated vegetable oils. If confirmed this will constitute a significant investment - the final investment decision will be based on the evaluation of many complex factors such as existing refinery configuration, feedstock availability, proximity to the market, as well as regulatory incentives.

Other areas that are being focused on by producers include increasing overall energy efficiency and lowering refinery carbon intensity by implementing advanced digital tools for monitoring and controlling of the processes - this is a must for today's refiner, especially in the presence of the Carbon tax. SOCAR Turkiye has also invested in non-traditional energy assets in the form of 17 wind turbines for renewable electricity generation.

The importance of industry collaborations was once again highlighted during this panel -where the close ties between each involved party of the downstream segment is essential. We are witnessing this through the many jointly developed technologies, combining resources and R&D knowledge which allows the licensors to provide reliable and scalable production paths for the producers in time.

Turkiye's role within the downstream industry is an important one - the country's geographical position means that it can easily serve the Middle East, North Africa, Iran, Pakistan and even India if needed. Therefore, local producers are closely monitoring these markets, evaluating industry benchmarks and last but not least periodically they do exchange information, allowing to plan production operations better.



The importance of Turkiye's downstream sector is reflected in the levels of investment and overall energy plans for the country. The country is following best practices in terms of developments and avoiding to concentrate all efforts and resources in one specific area. This is shown in the many energy investment programs running in parallel to support the development for a stable and secure energy mix, including electrification, renewables, bio chemicals and fuels, bio ethanol and green hydrogen, and importantly reducing dependency on imports of natural gas and coal.

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Due to its geographical position, Turkiye is aiming to strengthen its energy positions and pushing forward to become an energy hub, capable of producing and exporting a variety of energy carriers, with a special focus on green hydrogen.

On the 'conventional' side, it has been witnessed that the global demand for olefins has been increasing over the years with the same pace for the aromatics. Therefore, the country will work towards securing the production and supply of ethylene, propylene and base aromatics, with main focus on polypropylene and polyester value chains.

The conversation continues..

See you in Istanbul!

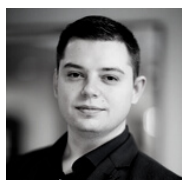


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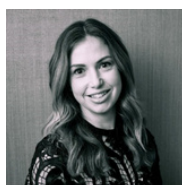


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