



SABIC Technical Meeting 2025





ognnews.com

- ▶ **New Home**
- ▶ **New Look**
- ▶ **New Features**
 - TechTalk
 - Exclusive Video Content

Follow the QR Code and our postings on:

twitter.com/OGN_Online
facebook.com/OGNOnline
linkedin.com/showcase/oil-&gas-news-magazine/



SABIC's Jubail home is innovative

This human-centric design ethos has resulted in a building replete with features that enhance the experience for the thousands of employees based in Jubail – Page 6



Seven tips for more efficient turnarounds

Effective plant turnarounds rely on early planning, supplier engagement, training, pre-fabrication, and quality control to ensure efficiency, and reduce costs – Page 8



Coal will be a central pillar of COP31

In the shadows of COP29, two of the world's most coal-dependent countries are still bidding to host the UN climate summit in 2026, renewing focus on coal – Page 25

BIG & EFFICIENT: NEW BAHRAIN REFINERY TO BOOST ECONOMY

By **ABDULAZIZ KHATTAK**

MANAMA: From a concept in 2015 to finally being brought online on December 18, 2024, the Bapco Modernization Project (BMP) will bring value to the Kingdom of Bahrain through increased monetising of its oil and gas resources, in an efficient manner.

The new refinery has been designed keeping in mind the country's responsibility to the environment, and uses the latest technology to reduce emissions while meeting future energy demands and lead the sustainable transformation of the refining industry.

The refinery was inaugurated by His Majesty King Hamad of Bahrain in the presence of His Royal Highness Prince Salman bin Hamad Al Khalifa, Crown Prince and Prime Minister, aligning with Bahrain's 53rd National Day and the Silver Jubilee of His Majesty's reign.

Costing \$7 billion, it's the largest investment in the country's history, and will increase the refinery's crude capacity by 42 per cent, reaching 400,000 barrels per day (bpd) when it reaches full production this year.

BMP builds on the 90-year-old legacy of Bapco, which was the first company in the Gulf region to tap into crude oil.

Mark Thomas, Group CEO of Bapco Energies – state-owned integrated energy company leading the Kingdom's energy transition – said the BMP will play a crucial role in Bahrain's Vision 2030, aiming to diversify the energy sector, increase refining capacity, and bolster the Kingdom's position as a global energy leader.

In terms of value addition, the new refinery will convert 78 per cent of lower-grade feedstock into high-value distillates like jet fuel, diesel and kerosene, contributing significantly to its profitability and efficiency.

Thomas expects 85 per cent of the refinery's production will be exported, thereby supporting the national economy, increasing



Milestone ... His Majesty King Hamad inaugurates BMP

government revenues, and providing high-quality products for the local market.

Environmental compliance is a key element of the BMP. Using advanced technology, the plant will recover 99.9 per cent of the hydrogen sulphide from the refinery's processes while reducing sulphur dioxide emissions by a 50 per cent and increasing sulphur production by 600 metric tonnes per day to a total of 1,100 metric tonnes per day.

The new refinery will also see reduced nitrogen oxide emissions (by 5 per cent) treated wastewater discharge (9 per cent).

The BMP supports the development of national talent in Bahrain's vital energy sector. Speaking to the media, Dr Abdulrahman Jawahery, CEO of Bapco Refining, said more than 500 Bahraini engineers had been employed at BMP so far, with plans to achieve a 90 per cent Bahraini workforce over the next five years.

He added each job within the company

creates 10 additional jobs in the private sector in support maintenance and services.

Bapco Energies operates across the entire energy value chain in Bahrain. According to Thomas, the country is seeking to diversify its energy sources and reduce reliance on gas by exploring solar, wind, and potential nuclear energy technologies, to complement the Kingdom's long-term energy goals.

Accordingly, Bapco Energies is developing a large-scale solar energy project in partnership with neighbouring Gulf countries, and studying a 2-gigawatt (GW) offshore wind energy project in collaboration with UAE's Masdar.

Efforts are also underway to maximise on-shore oil and gas production at the Bahrain Field.

Meanwhile, crude oil import from Saudi Arabia will exceed 320,000 bpd from the current 220,000 bpd to feed the new refinery as operations gradually expand.

Bilfinger Middle East celebrates 50 years

BILFINGER Middle East, a renowned industrial services provider, has evolved significantly since its inception in 1974.

Initially focused on the water industry, the company expanded its scope to encompass various sectors such as oil and gas, refining, petrochemicals, and utilities.

Today, Bilfinger operates across the Middle East, Africa, and South Asia, boasting a robust presence in these regions. Christian Rugland, President of Bilfinger Middle East, reflects on the company's impressive journey, noting its transformation from a small engineering team to an organisation with over 1,500 employees spread across 10 offices.

This growth has been underpinned by a clear strategic vision, centred around sustainability and operational excellence.

"By collaborating across the entire asset lifecycle and offering tailored solutions, Bilfinger has positioned itself as a trusted partner for clients on their decarbonisation journeys," Rugland says. Looking to the future, Bilfinger's commitment to sustainability remains a cornerstone of its operations.

The company is actively pursuing net-zero goals, offering clients customised, phased strategies designed to help them achieve carbon neutrality.

This comprehensive approach to sustainability, along with its ongoing restructuring to integrate operational excellence, positions Bilfinger as a leader in efficiency within the processing industry. As the company celebrates its 50th anniversary in the Middle East, Bilfinger is set to expand its reach even further.

A key focus is increasing its market share in the KA, where it has recently acquired full control of its joint venture.

Half a century of Bilfinger's impact, page 10



More firms vie for Sitra IWPP

MANAMA: Several top global utility project developers, including Korea Electric Power Corp (Kepeco), Japan's Sumitomo, Saudi-based Acwa Power and China Machinery Engineering Corp have submitted prequalification bids for the development of Sitra Independent Water and Power Plant (IWPP) in Bahrain, the Electricity and Water Authority (EWA) said.

Meanwhile, others who have expressed interest in the project are Saudi group Al Jomaih Energy and Water Company, Kuwait-based Gulf Investment Corporation, Jera Middle East and Africa Management Company, Abu Dhabi National Energy Company as well as AlGhanim International General Trading and Contracting (Overseas branch).

The project will be implemented on a build, own and operate (BOO) model. Once operational, it will boast a power capacity of 1,200 MW as well as 30 MIGD of seawater desalination capacity.



SABIC summit: A global platform for innovation

THE SABIC Technical Meeting and Conference 2025, scheduled from January 26 to 30, will take place in Jubail Industrial City, Saudi Arabia.

This event, now in its 14th edition, is set to be one of the largest of its kind, attracting over 600 companies from more than 65 countries.

With an expansive exhibition space exceeding 100,000 sq m, the exhibition will showcase cutting-edge technological in-

novations, sustainability initiatives, and operational excellence within the petrochemical industry.

Key highlights include the Smart Zone, offering immersive digi-

SABIC Technical Meeting 2025 – pages 2 to 14

tal experiences, and the SABIC Innovations Gallery, which will spotlight the latest breakthroughs from the SABIC family.

Networking opportunities will be abundant, allowing industry

leaders, experts, and decision-makers to form strategic partnerships, exchange ideas, and discuss the future of the sector.

The accompanying technical meeting will feature in-depth

sessions on asset performance, reliability, and integrity, providing valuable insights for enhancing operational efficiency and navigating evolving challenges.

The event will also serve as a

vital forum for thought leadership, enabling participants to present technical papers and engage in discussions on critical issues such as maintenance strategies and the growing importance of sustainability. This gathering promises to be an invaluable platform for collaboration, fostering stronger relationships across the petrochemical community while addressing both emerging challenges and new opportunities.

SABIC EXPO TO SPOTLIGHT PETCHEM ADVANCEMENTS

The SABIC Technical Meeting and Conference 2025 brings together global firms to showcase cutting-edge technologies, foster partnerships, and explore innovations shaping the future of the petrochemical industry

Inside

SABIC Technical Meeting 2025

SABIC's vision for a greener and more sustainable future.....	4
SABIC's Jubail home testament to sustainability.....	6
Seven tips for more effective, efficient plant turnarounds.....	8
Half a century of Bilfinger's impact in the Middle East	10
GCC chemical industry needs to adopt innovation, sustainability ...	12
LyondellBasell opens regionally in KSA.....	12
Petchem should focus on efficiency as growth slows.....	13
Localising graphene-enriched carbon fibre production in KSA....	14
SABIC youth initiative inspires innovation.....	14

KSA IKTVA 2025	15
Aramco's ictva is shaping KSA's energy future	
Aramco boosts localisation with key energy projects	

CATALYSTS	17
Harnessing carbon: A catalyst for CO2 transformation	

REGIONAL NEWS	18
Wood's Middle East contracts hit \$920 million in 2024	
ewpartners invests in United Solar's project	
Aramco partners on new carbon capture tech	

WORLD NEWS	19
US LNG needed to curb Asia's surging coal use	
The EU Council calls for European geothermal action plan	
Europe's energy taxes are worsening industry woes	

AFRICA FOCUS	20
Opec Fund approves \$1bn in financing	
AfDB invests \$30m in AFC to boost climate action	
Promoting gender equality in SAfrica's energy transition	
\$29m solar project to boost Chad's energy access	
Afreximbank signs major hydropower project in DRC	

PRODUCTS & SERVICES	22
Rise of fuel cells in decarbonisation efforts	
New Emerson's solution cuts costs and emissions	
Wärtsilä to power methanol-ready cement carrier vessel	
AIQ will integrate Reservoir 360 with SLB software	

SPECIAL REPORT.....	23
SBTi updating plans for O&G, other sectors to cut emissions	

INDUSTRY LEADER INTERVIEW.....	24
Anchored in excellence: Miros' milestones making waves	

GLOBAL PERSPECTIVE	25
Coal will be a central pillar of COP31, wherever it's held	

BUSINESS	26
Jafurah Gas Field Development - Phase 2	
Master Gas System Expansion - Phase 3	
OEG moves its HQ to Aberdeen	
Floway marks 90 years of excellence	

EXPO NEWS.....	28
SFME to host expert workshops on energy resilience	

For more news and features, visit
www.ognnews.com



SABIC's Technology and Innovation Office in Jubail

By ABDULAZIZ KHATTAK

THE SABIC Technical Meeting and Conference 2025, set to take place from January 26 to 30 in Jubail Industrial City, Saudi Arabia, is poised to be one of the premier global events for the petrochemical industry.

As a leading platform for innovation and collaboration, the meeting will bring together industry leaders, experts, and decision-makers from around the world to explore cutting-edge technologies, discuss emerging trends, and forge strategic partnerships.

This prestigious gathering, which will take place in one of the most important industrial hubs of the region, promises an unparalleled opportunity to showcase innovations, discover new business prospects, and stay ahead of the curve in an ever-evolving sector.

At the heart of the SABIC Technical Meeting 2025 is the accompanying exhibition, a critical feature that draws exhibitors from across the globe.

This exhibition will highlight the latest advancements in the petrochemical industry, with a particular focus on technological innovation, sustainability, and the pursuit of operational excellence.

Now in its 14th edition, the event is set to be the largest petrochemical exhibition in the region, attracting more than 600 companies from over 65 countries.

The exhibition provides a global stage for SABIC vendors, suppliers, and other key industry players to explore partnership opportunities, exchange ideas, and discuss the challenges and solutions that shape the future of the industry.

It will feature a diverse range of exhibitors, each presenting their innovative products and services designed to push the boundaries of what is possible in the petrochemical and related sectors.

The exhibition area itself will be expansive, covering more than 100,000 sq m of space, offering both indoor and outdoor

SABIC TECHNICAL MEETING 2025

Exhibition Space:	44,000 sq m
Countries:	65
Exhibitors:	600
Visitors:	50,000
Gross Area:	100,000 sq m
Activities:	10

display areas.

The latter will be particularly significant for exhibitors showcasing heavy machinery, providing a rare opportunity to see the latest in large-scale equipment and machinery used in the petrochemical industry.

A special Smart Zone will allow attendees to engage with exhibitors' innovations through interactive digital experiences, enabling them to gain a deeper understanding of the cutting-edge technologies being introduced.

Additionally, the SABIC Innovations Gallery will offer a glimpse into the latest breakthroughs from the SABIC family, allowing visitors to see first-hand the company's most recent technological developments.

Networking will be a major feature of the exhibition, with multiple opportunities for participants to meet and interact with key industry figures.

These interactions are critical for fostering collaborations and partnerships that can drive future growth and innovation within the sector.

The exhibition will also serve as a platform for building stronger customer relationships, offering participants insights into market trends and technological advancements that can help their businesses remain competitive and adaptable.

Furthermore, the event will give participants the chance to establish themselves

as thought leaders by presenting at keynote sessions or panel discussions, solidifying their positions within the industry and shaping its future direction.

In parallel to the exhibition, the SABIC Technical Meeting 2025 itself will provide a dedicated forum for discussing key technical issues related to asset performance, reliability, and integrity.

This aspect of the event is crucial for advancing the culture of asset reliability and maintenance within the petrochemical industry.

Participants will have the chance to attend a series of technical sessions and presentations where experts will share their knowledge and best practices.

These sessions will cover a range of topics, from the latest research and innovations in asset management to the evolving challenges and opportunities in maintaining operational integrity across complex industrial systems.

By sharing technical papers and engaging in discussions with peers, participants can gain valuable insights that will help them navigate the increasingly complex landscape of the petrochemical industry.

The SABIC Technical Meeting 2025 aims to strengthen community relationships within the industry, bringing together experts from various sectors to discuss common challenges and collaborate on solutions.

This collaborative environment is essential for building a coherent global culture of technical integrity and innovation.

By offering a platform for interaction between industry leaders, research institutions, and government agencies, the event will facilitate the exchange of ideas and promote the development of new strategies to address the most pressing issues facing the sector today.

These discussions will not only focus on technological advancements but also on the role of sustainability in shaping the future of the petrochemical industry.

SABIC's vision for a greener and more sustainable future

SABIC is pioneering sustainability with circular solutions, carbon neutrality, and community engagement, setting new standards for environmental responsibility and innovation in the global chemicals industry

By ABDULAZIZ KHATTAK

SABIC, a global leader in the chemicals industry, has established itself as a pioneering force in sustainability, demonstrating how environmental responsibility can coexist with business growth.

With a strategic focus on circular solutions, carbon neutrality, and community engagement, the company's sustainability efforts are reshaping the chemical industry and positioning SABIC at the forefront of sustainable innovation.

Through advancements in technology, partnerships, and governance, SABIC is not just reducing its environmental footprint but also creating new pathways for future generations to thrive.

EMBEDDING SUSTAINABILITY ACROSS GOVERNANCE & STRATEGY

At the heart of SABIC's sustainability journey is a governance framework that integrates environmental, social, and governance (ESG) principles into every facet of its operations.

As a signatory of the UN Global Compact since 2012, SABIC has aligned its strategies with the UN Sustainable Development Goals (SDGs), addressing issues such as poverty, climate change, and inequality.

The company's adherence to the Responsible Care® initiative further underscores its commitment to environmental, health, safety, and security (EHSS) excellence.

These frameworks guide the company's strategies, ensuring transparency and accountability through third-party certifications and regular performance audits.

SABIC's sustainability approach is embodied in the RAISE framework – Reputation, Audience, Innovation, Strategy, and Endurance – ensuring that its corporate social responsibility (CSR) and community engagement efforts remain aligned with long-term business objectives.

The framework helps SABIC address community needs while enhancing its brand, fostering shared value, and driving sustainable impact across all sectors of its operations.

Through this model, SABIC also maintains close engagement with key stakeholders, such as governments, investors, NGOs, and local communities.

Periodic materiality assessments ensure that SABIC's strategies balance the interests of various parties while promoting its sustainability goals.

Central to SABIC's ethos is the belief that businesses can and should drive positive societal change.

This is evident through the company's expansive community engagement efforts, which include active participation in 64 operational sites worldwide.

These sites facilitate local collaborations that inform various initiatives, ranging from volunteer programmes to financial support for small and medium-sized enterprises (SMEs) through SABIC's NUSANED™ programme in Saudi Arabia.

This initiative supports the Kingdom's Vision 2030 by fostering entrepreneurial growth and job creation, while also building strong relationships with local communities.

INNOVATIONS DRIVING SUSTAINABILITY

Innovation plays a pivotal role in SABIC's sustainability strategy, especially when it comes to



SABIC's robust R&D ecosystem has produced several breakthroughs aimed at reducing environmental impact

addressing environmental challenges.

The company is a leader in developing circular economy solutions, reducing waste, and enhancing resource efficiency.

At the core of this initiative is SABIC's TRUCIRCLE™ platform, which enables the recycling of materials and the use of renewable feedstocks.

Through this platform, SABIC has already achieved significant milestones, including 18 kilotonnes of certified circular and renewable solutions in 2023.

With a goal of reaching one million metric tonnes by 2030, the company is making substantial strides in transforming waste into valuable resources.

A significant breakthrough in SABIC's circular economy efforts is its collaboration with BASF and Linde to develop the world's first large-scale electrically heated steam cracker furnace.

This innovative technology aims to reduce carbon emissions associated with traditional cracking processes, marking a crucial step in SABIC's commitment to decarbonisation.

Additionally, the company's investment in chemical recycling technologies, such as the upcoming advanced recycling plant in Geleen, the Netherlands, will significantly increase the production of high-quality recycled materials, reinforcing SABIC's leadership in sustainable material production.

SABIC's focus on bio-based materials also highlights its commitment to renewable solutions. In 2023, the company launched bio-based NORYL™ resin grades certified under ISCC PLUS standards.

These materials, which can be used in industries like wind energy, automotive, and construction, are part of SABIC's broader effort to reduce reliance on fossil fuels and promote sustainable manufacturing practices.

In the realm of packaging innovation, SABIC has made significant progress in creating environment-friendly solutions.

Its collaborations with leading food manufacturers have led to the development of microwaveable bowls made from 25 per cent certified renewable polypropylene.

These sustainable packaging options help re-

duce plastic waste, providing consumers with more eco-conscious choices.

Moreover, SABIC's innovations extend to energy production. The company's carbon capture and utilisation (CCU) technology at its Jubail facility is a prime example of its leadership in reducing carbon emissions.

The facility captures and purifies 500,000 tonnes of CO₂ annually, reintegrating the carbon into industrial applications and effectively closing the loop on emissions.

This initiative, alongside SABIC's investment in low-carbon ammonia production, is central to its broader goal of achieving carbon neutrality.

In 2023, SABIC delivered 5,000 tonnes of certified low-carbon ammonia to India, marking a historic milestone in sustainable agriculture.

COLLABORATION FOR GLOBAL IMPACT

SABIC's sustainability agenda is not just about internal innovation but also about fostering collaboration with global stakeholders to achieve broader environmental goals.

As a member of the World Business Council for Sustainable Development (WBCSD), the company works alongside other industry leaders to tackle complex sustainability challenges.

SABIC's partnership with global organisations and local communities enables the company to scale up solutions that address pressing issues like climate change, resource scarcity, and waste management.

The company's commitment to sustainability extends to its employee base, with comprehensive benefits and training programmes designed to support their well-being and personal development.

Initiatives like the SABIC Scholarship Programme, the TAMHEER initiative, and the Summer Innovation Programme help nurture future leaders while meeting the growing demand for skilled professionals in science, technology, engineering, and mathematics (STEM) fields.

Through these Programmes, SABIC is cultivating a workforce equipped to lead the charge in sustainable innovation.

Employee engagement also plays a key role

in SABIC's community-driven approach. The company actively encourages volunteerism, with employees participating in projects related to health, education, and environmental protection.

This fosters a culture of social responsibility and underscores SABIC's holistic approach to sustainability, which considers environmental, social, and economic impacts.

TOWARD A GREENER, MORE INCLUSIVE FUTURE

SABIC's sustainability vision extends beyond reducing its own environmental footprint; it aims to drive positive change across industries and communities globally.

The company's ambition is reflected in its comprehensive sustainability targets, which include a 20 per cent reduction in greenhouse gas emissions and a 25 per cent improvement in energy and water use efficiency by 2030.

These targets, supported by cutting-edge technologies and strategic partnerships, position SABIC as a leader in driving the transition to a low-carbon economy.

In 2023, SABIC's ESG performance received a significant boost, with its ESG score on Bloomberg's ESG Data Index increasing by 39 per cent.

This achievement highlights the company's ongoing commitment to transparency and accountability in all aspects of its operations.

As the company continues to innovate and collaborate with global partners, SABIC is setting a new standard for what it means to be a responsible corporate citizen.

By embracing circular economy principles, pioneering low-carbon technologies, and fostering ethical governance, SABIC is paving the way for a more sustainable and inclusive future.

Its holistic approach to sustainability not only addresses urgent environmental challenges but also ensures long-term value creation for its stakeholders.

As SABIC's journey continues, its vision of "Chemistry that Matters" serves as a powerful reminder that profitability and purpose can and should go hand in hand in the pursuit of a greener, more sustainable world.

SABIC's Jubail home testament to innovation & sustainability

The human-centric design ethos has resulted in a building replete with features that enhance the experience for the thousands of employees based in Jubail and the local community

By SREE BHAT

RISING amidst an industrial landscape, the new Jubail headquarters of SABIC, one of the world's largest petrochemical companies, has proved itself as a hub of innovation and sustainability during the past one year after its inauguration.

In November 2023, SABIC unveiled the state-of-the-art building in the Eastern Province of Saudi Arabia, setting a benchmark in office construction.

This striking building - the first in Jubail to achieve carbon neutrality - has well exceeded the expectations of its occupants with its open-plan design that fosters collaboration and its energy-efficient features.

OGN energy magazine had the opportunity to visit this impressive structure, which exemplifies what can be achieved with a visionary approach to design and development.

The company's facilities managers entrusted with planning and maintaining this newest addition to SABIC's portfolio shared insights during a tour of the building. They revealed that their objective was to create a working environment that would not only serve SABIC employees well today but also adapt to future needs.

This human-centric design ethos has resulted in a building replete with features that enhance the experience for the thousands of employees based in Jubail and the local community. It reflects SABIC's commitment to innovation and sustainability through investments in human capital, knowledge, and expertise, they said.

From the moment we walked into the building and made our way through the long corridor to the expansive lounge, till the final photo session, the building revealed one innovation after another, each step showcasing progress in creating a better built environment.

Situated in a windy coastal area, the building prioritises safety, employing advanced tilt-structure technology sourced from Europe and the US. The entire steel needed for the construction came from SABIC's Hadeed division. The façade design minimises direct sunlight into the building, while maximising the use of natural daylight in open workspaces, thus reducing cooling loads and lighting requirements.

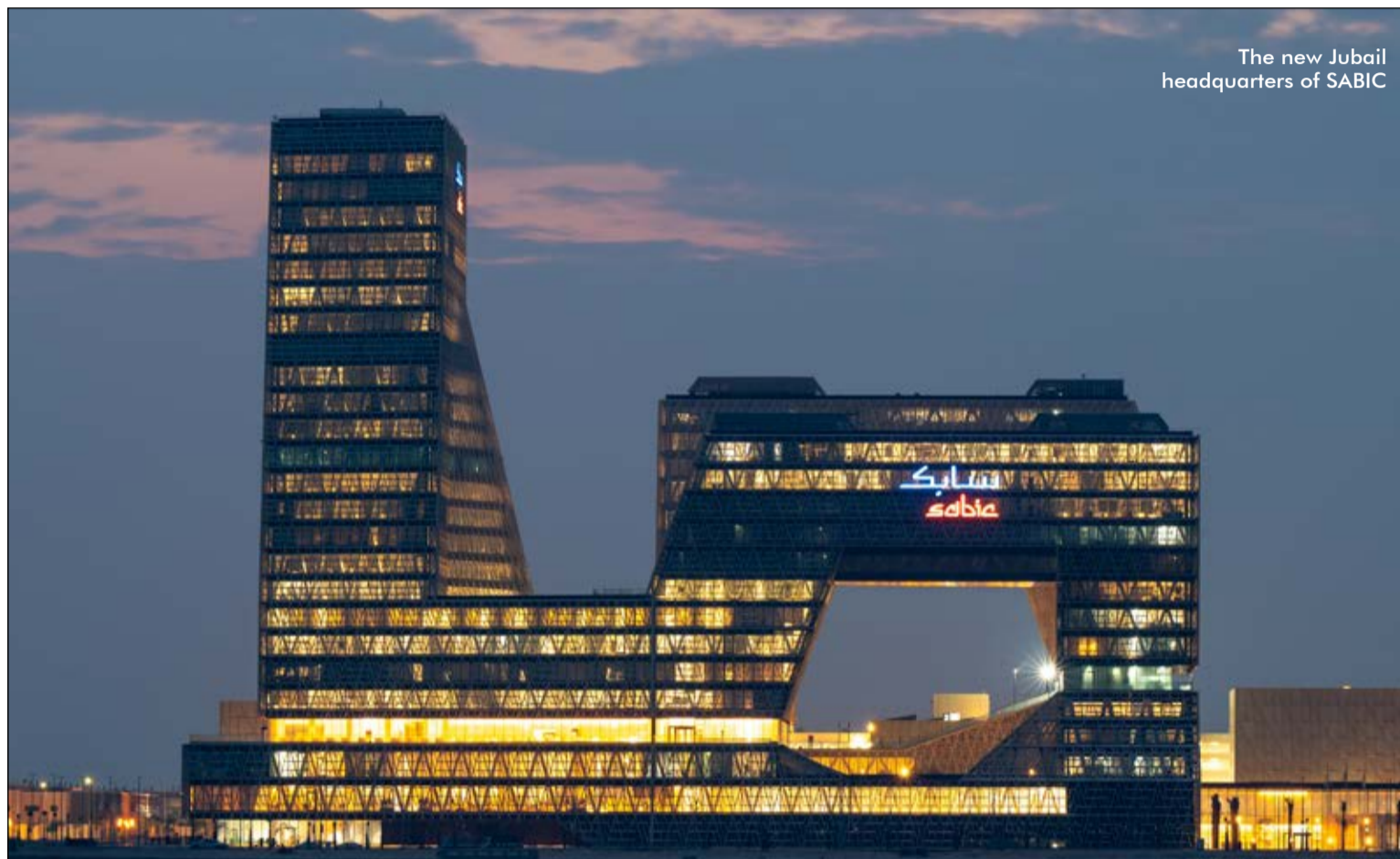
The building occupies a total land area of 66,000 sq m, with a built-up area of 254,000 sq m, accommodating over 3,600 employees. Demonstrating a commitment to local economic development, 77 per cent of the building's purchases for mechanical, electrical, and finishing works were sourced locally.

The open-space floor plan of the building eliminates barriers between staff and management, reflecting SABIC's values of inclusivity and engagement. Universal themes in spaces and furniture maximise flexibility, while extensive dining, collaboration, and learning facilities serve the needs of the employees.

DESIGNED FOR PEOPLE & COMMUNITY

Reflecting SABIC's emphasis on integrating with the surrounding environment, the building eschews boundary walls, offering open visual spaces and a garden with a walkway. Commercial facilities within the building further serve both employees and the community.

The building includes a state-of-the-art auditorium that can accommodate 1,037 people and features a skylight that allows natural light to flow in.



The new Jubail headquarters of SABIC

The open-space floor plan of the building eliminates barriers between staff and management, reflecting SABIC's values of inclusivity and engagement

Additionally, the building houses a recreation club with facilities for male and female employees, two separate swimming pools, a nursery for children, and a two-floor cafeteria with seating for up to 1,500 employees, supplemented by 45 refreshment corners throughout the premises.

The complex's mosque, named after Ghazi Al-Gosaibi – a prominent Saudi politician, diplomat, and intellectual – can host 1,000 worshippers.

COMMITMENT TO ENVIRONMENTAL EXCELLENCE

SABIC remains committed to the goals of the Paris Agreement, aiming for carbon neutrality by 2050. By 2030, it plans to reduce its Scope 1 and Scope 2 greenhouse gas emissions by 20 per cent compared to 2018 levels. The company also collaborates with partners to address Scope 3 emissions along the value chain.

The Jubail building is among the most energy-efficient facilities of its size in Saudi Arabia, thanks to measures such as leveraging natural sunlight and implementing chilled water technology, while minimising food waste.

The building has earned LEED Gold certification for its innovative resource management

and energy efficiency. Over 1,500 solar panels provide a total capacity of 850 kW of DC power. The result is an impressive reduction in CO2 emissions of 11,642 tonnes annually.

This achievement makes the building the first in Jubail to attain carbon neutrality, aligning with SABIC's strategy to achieve carbon neutrality across its operations by 2050.

Further contributing to sustainability, the building recycles water from handwash stations for toilet flushing and collects rainwater for irrigation. Its HVAC system, powered by district cooling water technology, achieves a 40 per cent reduction in energy costs. Variable air volume (VAV) units, numbering more than 2,400, ensure optimal cooling by responding to temperature changes and occupancy levels.

TECHNOLOGY-DRIVEN DESIGN

A hallmark of the building is its integration of digital features, such as smart meeting rooms. These technologies create a dynamic and flex-

ible workspace. Jubail is set to become SABIC's primary data hub, connecting all global sites through advanced data systems and operational excellence technologies. The building boasts hundreds of system assets, covering safety, management, electricity, IT, security, and mechanical systems, and is certified by the Uptime Institute (UTI) for data centre quality.

ENHANCING ECONOMIC & COMMUNITY IMPACT

Jubail city, home to the largest number of SABIC's plants and affiliates, stands to benefit significantly from this new building. It strengthens the city's position as an industrial and business hub with advanced infrastructure and a strategic geographic location.

In the 13 months since its inauguration, the SABIC Jubail building has hosted numerous employee events, including training sessions and U Matter 23 roadshows, leaving a lasting impact.



SABIC's building maximises the use of natural daylight in open workspaces

Seven tips for more effective, efficient plant turnarounds

Effective plant turnarounds rely on early planning, supplier engagement, training, prefabrication, and quality control to ensure efficiency, reduce costs, and enhance long-term system reliability, Mike Aughenbaugh tells **OGN**

By **ABDULAZIZ KHATTAK**

PLANT turnaround is a major undertaking for chemical plants and refineries around the world. These complex events often involve hundreds of technicians from multiple vendors, working simultaneously to complete a variety of important maintenance, revamp, and renewal activities across a specific system or an entire plant at once, Mike Aughenbaugh, Associate Target Market Manager, Swagelok, tells **OGN** energy magazine.

Since a turnaround involves taking processes offline, thereby stopping production, it is in the owner/operators' best interest to complete these projects as efficiently as possible.

Additionally, protracted turnaround projects involve keeping contractors on-site for longer, thereby increasing cost and risk.

For larger facilities, turnarounds may involve years of planning, and they represent massive investment on the operator's behalf it is not uncommon that turnaround accounts for a major portion of the organisation's annual maintenance budget.

For these reasons, a mismanaged turnaround can cause a major financial hit to an organisation.

With all of this in mind, there are seven best practices that owners/operators can follow for more effective turnaround management:

1. Engage early with trusted suppliers: Planning for turnarounds is an extensive process, often beginning years before the work itself starts, and for good reason. Being as prepared as possible can help eliminate unforeseen project pitfalls.

Major fluid systems are complex entities, some requiring specialised parts and components made from highly specific alloys, depending on the process.

Lead times on obtaining these engineered-to-order parts are typically longer than stock stainless steel components, but early engagement with your supplier can help map out these needs well in advance.

2. Identify areas of new opportunity: While the goal of turnarounds is to restore all parts of the system to optimal working condition, turnarounds are also great opportunities to make additional system improvements that can result in higher reliability and performance.

Making these improvements requires advanced planning. System changes typically must be approved well ahead of the turnaround event itself due to management of change (MOC) requirements, and prior to the project's engineering freeze.

Operators who have already engaged with ven-



Mike Aughenbaugh

dors early are ahead of the curve here, and they can further work with these specialists for expert recommendations on system enhancement.

One example of system enhancement includes pre-engineered and assembled grab sampling panels, which can replace traditional grab sampling elements in a system.

This is a practical improvement that does not change the system's fundamental design, and helps operators more easily draw proper samples (Figure 1).

3. Be prepared for the unexpected: Making allowance for variables and contingencies throughout turnaround is another way operators can ensure overall project efficiency.

For example, because of the large and complex nature of the fluid systems throughout chemical plants and refineries, it is practically impossible to know exactly which, and how many, specific components will be needed throughout the turnaround.

For that reason, it is beneficial to stock a variety of hoses, valves, and adapters prior to the start of the project.

Having some of these basic components already on hand can be a significant time saver versus having to order additional parts once installation is already underway.

4. Ensure the availability of local support: Sometimes, though, the unexpected does happen, and you may not have the right parts on hand at the time when you need them.

When coordinating with your vendors, ensure they can offer localised support near your project for any unforeseen parts sourcing that may occur



Figure 1 ... Switching to pre-engineered and preassembled grab sampling panels can reduce the potential for poor installation and can make the overall system more efficient/volatility to grid operations

to ensure timely delivery (Figure 2).

5. Keep a close eye on installation of critical parts: The number of technicians working on a given turnaround project can be staggering, involving hundreds of labourers from different firms and disciplines, oftentimes from around the world.

As such, the level of installation knowledge across these numerous vendors is often inconsistent.

Inconsistency is the last thing an owner wants on a turnaround project. For example, poorly routed tubes on existing fluid systems might be at risk of vibration fatigue, and an inexperienced technician might simply replace system components using the exact same routing and clamping points.

A more experienced technician might be able to optimise routing to eliminate vibration risk.

Additionally, a more inexperienced technician may not give proper consideration to tooling and equipment used to perform installation work, which can potentially damage components and lead to poor performance later on.

How do you ensure consistent installation, using the right tools, across dozens of different contractors?

One strategy is to include training and certification within your specification. This ensures

that anyone performing work on your system is equipped with certain baseline knowledge and is familiar with sound installation best practices.

6. Seek out prefabricated assemblies: Because of the engineering complexity of many fluid systems in chemical plants and refineries, the more that can be prefabricated, pre-assembled, and pretested prior to the turnaround, the more efficiently contractors can install these critical systems.

Prefabricated assemblies can once again help alleviate expertise and knowledge consistency concerns across numerous vendors and contractors, and can free up labour hours.

Grab sampling panels are one good area of opportunity, allowing for safe, efficient sample capture while meeting your specific plant application needs.

Elsewhere, mechanical seal support systems can help increase mechanical seal longevity. Analytical subsystems, including fast loops, field stations, calibration and switching modules, sample probes, and fluid distribution headers, can bring efficiency and consistency to your operations, with simplified design footprints (Figure 3).

7. Maintain tight quality control: It is in an operator's best interest to maintain strict control of the quality and consistency of parts being installed during a turnaround.

Specifications that allow too much flexibility may lead some contractors to source less expensive and lower-quality components.

Inconsistent parts quality across different systems can lead to inconsistent performance, premature maintenance needs, or downtime later on.

Keeping a tight, up-to-date specification that allows only for the use of high-quality components in your critical fluid systems is one more way to make your turnaround effective.

In addition, the more consistent an operator is with not intermixing parts from different suppliers and not interchanging for different parts, the easier it will be to maintain systems consistently in the future.

Keeping these tips in mind, any chemical plant or refinery operator can see their way through faster, more efficient turnarounds while potentially improving long-term reliability and performance of fluid systems.

Interested in learning more about effective plant turnarounds? Swagelok can help; our local field engineering team regularly helps chemical processing or refining customers with effective plant turnarounds.

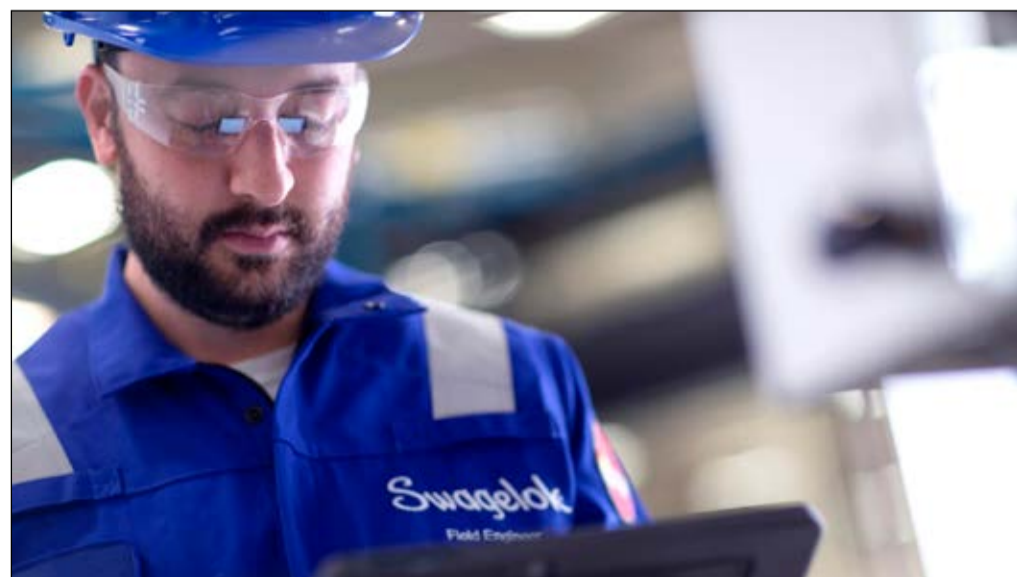


Figure 2 ... Select vendors who offer localised support so they can deliver components in a timely fashion to prevent delays from affecting your turnaround timeline



Figure 3 ... Changing seal support systems to standardised panels can make installation, service, and maintenance easier while improving component performance over their lifetime

Bilfinger celebrated 50 years in the Middle East, highlighting growth in diverse sectors, commitment to sustainability, and a strong focus on decarbonisation and localised solutions for the region's energy markets, Christian Rugland tells **OGN**

Half a century of Bilfinger's impact in the Middle East

By **ABDULAZIZ KHATTAK**

BILFINGER Middle East, a leading industrial services partner, started its engineering business in 1974 with a focus on the water industry, but has since expanded its footprint across various sectors, including oil and gas, refining, petrochemicals, and utilities, and now boasts an extensive presence in the Middle East, Africa, and South Asia.

The company's success can be attributed to its strategic vision of becoming a leader in efficiency and sustainability within the processing industry.

"By collaborating across the entire asset lifecycle and offering tailored solutions, Bilfinger has positioned itself as a trusted partner for clients on their decarbonization journeys. This approach has been reinforced by a restructuring of its operations, focusing on operational excellence and integrated solutions to meet the evolving needs of the market," Christian Rugland, President, Bilfinger Middle East, tells **OGN** energy magazine.

Bilfinger's commitment to sustainability is evident in its ambitious net-zero approach, designed to help clients reach carbon neutrality through phased implementation strategies and innovative technologies.

Below are excerpts from the interview:

• **The year 2024 marked 50 years of Bilfinger's presence in the Middle East. What were some of the key milestones in the journey?**

We celebrated the golden jubilee of Bilfinger Engineering Middle East's journey and are proud to look back at our achievements and are committed to moving forward to deliver on our commitments.

Over the past 50 years, we have expanded our services in this region to cover almost all process industries, while maintaining a focus on oil and gas, refining and petrochemicals, and utilities. We also aim to engage other energy-intensive industries such as cement, mining and metals, and pharmaceuticals through our consultancy and engineering resources.

Starting with a small team of engineers and designers, which grew to over 60 in the mid-term, we now have more than 1,500 full-time employees across 10 offices in the Middle East, Africa, and South Asia region, reflecting exponential growth in our business base. We have the capabilities and systems to deploy a 150-plus strong team of multi-disciplines on a single project.

We have a strategic focus on further increasing our participation in the Kingdom of Saudi Arabia engineering business and have recently acquired our partner's share in our existing joint venture. We are one of the leading engineering contractors in the UAE, Bahrain, and Qatar, with participation in major projects and expanding our footprint in other Middle Eastern countries as well.

How has Bilfinger positioned itself as a leader in the processing industry, and what strategies have been key to your success in this sector?

With our vision to be number one in efficiency and sustainability for our customers, we systematically collaborate across the value chain throughout the entire lifecycle of their assets.

We are equipped to support our customers at every stage of their comprehensive decarbonisation journey, offering a scalable and modular mix of solutions that are tailored to the unique needs of each client, aligned with their strategy



Christian Rugland

and objectives.

As part of our recent business process restructuring, we have launched an enhanced strategy underpinned by the strategic levers of operational excellence and positioning.

By customising the deployment of various enablers linked to these strategic levers, we position ourselves as a trusted, integrated solutions partner.

Bilfinger's Net-zero Approach has won it praise. What is this approach and what impact can this have for customers in the process industry that want to achieve greater efficiency and sustainability?

Bilfinger's net-zero approach is a comprehensive value proposition designed to help clients achieve their sustainability, decarbonisation, and carbon neutrality targets.

This approach involves a phased development of measures using net zero road mapping methodologies, such as the Marginal Abatement Cost Curve (MACC), coupled with extensive experience in process industries.

Ultimately, it also focuses on the implementation phase of these measures through short-, medium-, and long-term plans aimed at achieving net-zero operations within the targeted overall timeline. We collaborate with clients in the key areas of energy transition, asset operations management, and digitalisation, all of which are mission critical drivers in reaching net zero operations goals.

Can you elaborate on Bilfinger's approach to working with clients from the inception stage of projects, and how does this collaborative process contribute to project success?

Bilfinger traces its origins back to 1880 and possesses vast experience, alongside a deep repository of best practices and lessons learned throughout the comprehensive lifespan of the asset value chain.

With nine global product centres offering integrated solutions for asset development, maintenance, and turnaround activities, Bilfinger ensures it works with clients as a strategic partner.

Walk us through Bilfinger's role in the various phases of development, right from inception through to design and build and commissioning of plants, and followed by operations and maintenance.

As trusted business partners, we collaborate with our clients through the entire project lifecycle, from the definition to the realisation phases, including:

- Identifying opportunities through relevant



Bilfinger methodology enables optimal plant turnarounds

potential assessments.

- Conducting high-level feasibility and conceptual studies.
- Providing engineering services related to the basic and detailed phases of projects.
- Offering consultancy through PMC, EPCm, asset management by design, alongside HSE requirements.
- Managing construction, start-ups, and commissioning.
- Overseeing maintenance and modifications.
- Handling re-purposing and decommissioning.

Our business models are modularised, allowing us to customise solutions according to client needs and financial viability.

What are some of the initiatives Bilfinger is undertaking to promoting localisation within the region's energy market?

Bilfinger is meeting the targets set by the region's countries in line with localisation requirements.

Implemented initiatives include supporting local communities, employing domestic staff in leadership, professional, and support functions, providing educational support, promoting localisation, transferring Bilfinger's international experience to the region, and investing in the supply chain, among others.

Name some key operation and maintenance projects for power plants that Bilfinger has signed recently, and what are the major outcomes or benefits of these projects?

Some of our big maintenance power plants contracts include those for the Saudi Electricity Company, such as the Shoaiba Power Plant, Central Operating Area Power Plants, Qurrayah Combined Cycle Power Plant, and the Jeddah South Power Plant.

Through these contracts, we are contributing to their operational excellence targets while addressing the reliability, availability, and maintainability requirements of these power plants.

These are primarily long-term maintenance framework and service contracts, which will provide us with opportunities to identify other requirements related to modifications, engineering, and top-line consultancy offerings.

What are some of Bilfinger's key global experiences in industries like power, chemicals,

and oil and gas, and how can these be leveraged to drive success and innovation in the GCC region?

It is worth mentioning that Bilfinger is working with the major global corporations, including ExxonMobil, Shell, Borealis, OMV, DOW, BP, EDF, TotalEnergies, Vattenfall, and YARA –to name a few. Our clients position Bilfinger as a global partner, thanks to our well-established business bases in the US, Europe, ME, Africa & South Asia, as well as our collaborations with these industry leaders. We are in close collaboration with them on the New Normal requirements, which span on a wide range of factors. We ensure they remain competitive in their respective business domains, focusing on core activities such as production and process technologies, while we support them in areas such as engineering, maintenance, and project development & execution requirements.

What are Bilfinger's key strategic goals and future plans for growth, particularly in the GCC region, and considering the everchanging energy landscape and how does the company intend to address evolving industry challenges?

The Middle East is a key growth region for Bilfinger. We are witnessing exponential growth in areas such as digitalisation, asset operations management, and energy transition, which are the main drivers for achieving net-zero, in line with the Paris Agreement's 1.5 deg C target.

Bilfinger, as a corporation, is fully aware of the challenges and opportunities in the region and is making strategic investments in people and assets, including targeting mergers and acquisitions, to serve our clients with sustainable industrial services.

We are expanding our core businesses within the oil, gas, and petrochemical industries, focusing on engineering and maintenance. Additionally, we are broadening our service offerings within the power and utilities sector, capitalising on existing business with power and desalination plants for maintenance and modifications.

Bilfinger is also targeting geographical expansion across the Middle East and North Africa, while closely monitoring the competitive landscape in Central Asia. We remain flexible and open to collaborating with multiple technology partners to develop integrated solutions tailored to the market needs of the Middle East and GCC.

Since the challenges of sustainability and innovation cannot be faced by the GCC alone, there is growing recognition of the need for collaboration across industries, governments, and international borders

GCC chemical industry needs to adopt innovation, sustainability

THE future of the GCC chemical industry is increasingly defined by a shift towards sustainability, innovation, and global collaboration.

As environmental challenges intensify, the region's chemical and petrochemical sectors are adapting to new demands for cleaner, more efficient energy solutions.

Sustainability is now a central theme in the GCC's industrial strategy, with the chemical industry embracing its responsibility to reduce environmental impact while continuing to drive economic growth.

Sustainability initiatives in the region's chemical sector include a focus on the circular economy, where waste is minimised and materials are reused.

Innovations in carbon capture and storage, hydrogen technologies, and renewable energy solutions are already helping reshape production processes to be more sustainable.

These technologies not only aim to reduce the carbon footprint of chemical manufacturing but also enable the industry to meet the growing demand for environmentally friendly products.

Feedstock transformation is another key area of focus, as the industry moves away from traditional petrochemicals towards producing higher-value, sustainable chemicals.

This transition is positioning the GCC as a leader in the global market for green products, while helping companies diversify and future-proof their operations.

By leveraging new materials and methods, the chemical industry in the region is responding to global demands for more sustainable and versatile chemical products.

Innovation continues to drive the transformation of the sector, with companies investing in cutting-edge technologies such as artificial intelligence, automation, and the Internet of Things (IoT).

These technologies are improving production efficiency, reducing resource consumption, and ensuring that the sector remains competitive on the global stage. In particular, the integration of digital tools allows for real-time monitoring and optimisation of manufacturing processes, supporting ongoing sustainability goals.

However, the challenges of sustainability



Abdulrahman Al-Fageeh speaks at the 18th Annual GPCA Forum

and innovation are not ones that the GCC can face alone.

There is growing recognition of the need for collaboration across industries, governments, and international borders.

Industry leaders are calling for stronger partnerships to accelerate the adoption of new technologies and to ensure that the chemical industry can meet global environmental standards.

As Abdulrahman Al-Fageeh, CEO of SABIC and Chairman of the Gulf Petrochemicals and Chemicals Association (GPCA), stated at the 18th Annual GPCA Forum: "The chemical industry has plenty to be optimistic about. So, that's why it

makes sense to prepare itself now for the long term. It needs to embrace the concept of sustainability. But to do this, it will need to design, build, and run facilities according to the state of the art."

The importance of attracting young talent to the industry is also a key focus, with many stakeholders in the region working to inspire the next generation of leaders in chemical engineering and sustainability.

By fostering a skilled workforce, the GCC is ensuring that the industry will remain a significant global player for years to come.

As the chemical industry in the GCC continues to embrace sustainability, innovation, and collaboration, it is set to lead the way in shaping a greener, more efficient global chemical industry.

With a strong commitment to these values, the region is poised to play a pivotal role in meeting the world's future industrial needs.

LyondellBasell opens regional office in KSA

LYONDELLBASELL (LYB), a global leader in the chemical industry and one of the world's largest producers of polymers and a leader in polyolefin technologies, has established its regional corporate office at the King Abdullah Financial District (KAFFD) in Riyadh.

This marks the company's first regional base in Saudi Arabia, a move that's set to expand its operations and establish a profound presence within the dynamic landscape of Saudi Arabia and the region. LYB has been operating in the Kingdom through various joint ventures.

LYB is a global leader in developing, manufacturing and marketing high-quality and innovative products for applications ranging from sustainable transportation and food safety to clean water and quality healthcare. Through advanced technology and focused investments, LYB is enabling a circular and low carbon economy.

Deena Alkhayyal, Managing Director KSA, LyondellBasell Arabian, said: "We are excited to open a corporate office in Riyadh, which will facilitate the growth of LYB in the Kingdom. The proximity to our existing joint ventures will enable us to sustain a strong relationship with our

stakeholders."

The LYB office is located in the Muqarnas Tower, a 70,000-sq-m landmark designed by SOM. Inspired by the intricate 'muqarnas' motifs of Islamic architecture, the tower features a façade that enhances shading and sun protection, creating comfortable and energy-efficient workspaces. Its design incorporates advanced sun control and daylighting features to reduce glare and heat gain while promoting sustainability.

Blending modern urban design with robust digital infrastructure, the tower fosters productivity, collaboration, and well-being, setting new standards for workplaces and reflecting KAFFD's commitment to innovation and sustainability.

With its new corporate office, LYB has joined other leading institutions and companies including Deloitte, JLL, and financial institutions such as Goldman Sachs and HSBC who have selected KAFFD for their corporate offices in the Kingdom.

KAFFD is home to more than 75 local, global and regional firms, both government and private, across a wide spectrum of industries, from finance and technology to healthcare.



EMC POWERING EVERY MOVE



The STAHL CraneSystems brand offers a wide range of crane components and methodical engineering solutions. These products are used in standard, special, and explosion-protected bridge cranes and hoisting systems across various industries, including automotive, oil and gas, power station construction, chemicals, transport and logistics, steel and concrete production, mechanical and plant engineering, air and road transport, as well as in the pharmaceutical and food industries.



Our product range includes mobile lifting jacks, lifting platforms, as well as special customized equipment and complete under-floor lifting systems. To cover all maintenance and repair work on bogies, wheelsets, and vehicle chassis, Pfaff-Silberblau offers optimal solutions for your workshop.



Yale is the leading brand in Europe for standard manual hoists. Delivered ready for use, the devices are utilized across a variety of industrial and commercial sectors worldwide, including construction, mechanical engineering, transport, energy & water management, oil & gas, and paper production. The application-oriented range, as well as all innovative new and further developments of Yale products, are continually raising the bar in terms of quality, reliability, and safety. The extensive product range includes hoists, cable pullers, jib and gantry cranes, load handling equipment, weighing technology, hydraulic tools, heavy-duty load moving systems, pallet trucks and stackers, as well as textile lifting and lashing equipment.



Precision Conveyors – Solving industrial, packaging, and sanitary conveyance needs. Founded in 1966 in Hartland, Wisconsin, DORNER is a global leader in the design, application, manufacturing, and integration of conveyor systems. Customers all over the world turn to DORNER to achieve improved efficiency, productivity, and a positive ROI.



EMC is a leading company dedicated to delivering innovative and high-quality solutions in the industrial sector. With a broad range of specialized brands under its umbrella, EMC has built a reputation for excellence in lifting systems, conveyor technologies, and motion solutions. The company's offerings cater to industries that require precise, safe, and efficient equipment for handling, moving, and controlling heavy loads and materials.



Head Office
Eastern Morris Cranes Company Ltd.
Zamil Group Holding Co.
P.O. Box 13793, 17th Street, 1st Industrial City,
Dammam 31414, Saudi Arabia

Riyadh Branch (Commercial Division)
P.O. Box 251, Al Farazdaq Street,
Al Malaz, Riyadh 11411, Saudi Arabia

Jeddah Branch
P.O. Box 12651, Al Hamra,
Jeddah 21483, Saudi Arabia
Email: mail@emc.com.sa
sales@emc.com.sa



www.emc.com.sa

Petchem should focus on efficiency as growth slows

Aggreko advises petrochemical firms to focus on improving efficiency and energy resilience to navigate slowing sector growth and address challenges such as rising energy costs and shifting market conditions

WITH petrochemicals sector growth set to slow down over the course of the next decade, energy specialist Aggreko is encouraging refinery operators to target efficiency gains in order to remain competitive in the shifting market landscape.

A recent report from the Boston Consulting Group (BCG) has forecast that petrochemicals sector demand is set to grow by 3 per cent through to 2035, compared to the 3.3 per cent achieved from 2014 to 2024. Shifting supply and demand dynamics, alongside changes in market balance, have both been cited as major reasons for the projected slowdown in growth.

In response to this forecast, Gilles Revial, Sector Leader for Petrochemical and Refining at Aggreko Europe South, is calling for sector stakeholders to prioritise efficiency gains on site, which he believes will allow businesses to remain competitive and become more resilient to external threats.

He says: "With slowing demand, high energy costs, and major shifts in the market, the petrochemicals sector is currently facing one of its greatest challenges to date. The industry we know today will not be the same as the one we will see in 10 years' time, so it is critical that businesses take effective steps to remain competitive throughout this period of change.

"The first port of call here should be to look inwards towards your own operations, and identify where efficiency gains can be made. Increasing productivity among both staff and assets is the cornerstone of competitiveness, especially when operating on the global stage."

Achieving energy resilience and boosting productivity in the face of external pressures are major themes of Process Matters, Aggre-

Refineries need to remain competitive in the shifting market landscape



ko's latest research report for the petrochemicals industry.

Surveying 604 process engineers across Europe, the report revealed that the cost of running power equipment has risen by 25 per cent on average across the continent, with 59 per cent of respondents stating that reducing the energy consumption of said equipment was 'high priority'.

The report goes on to offer a number of strategies through which businesses can address these challenges, including right-sizing power equipment and using remote monitoring to optimise energy usage.

Outsourcing low-carbon Greener Upgrades® – sustainable tech-

nologies and methods designed to help businesses make sustainable switches – is also identified as an effective method of providing reliable, sustainable power for turnarounds, offering high levels of redundancy to guarantee an uninterruptible power supply.

This includes battery energy storage systems (BESS) and stage-V generators, with investment in this technology forming a key pillar of Aggreko's sustainability framework, Energising Change.

Revial concludes: "While the petrochemical industry is undoubtedly entering a period of uncertainty, the good news is that through a bit of innovative thinking, there remain routes through which refinery operators can weather the storm."

AMETEK®
PROCESS INSTRUMENTS

WE'RE COMMITTED TO
YOUR EFFICIENCY

Our analyzers make tough SRU work a little easier

We know how hard it is to manage sulfur recovery unit (SRU) processes, and the levels of skill, concentration, and dedication your team needs.

That's why we make sure you don't have to worry about your analyzers, too. We've been designing industry-standard SRU analyzers for decades, focusing on reliability, longevity, accuracy, robust design, and ease of use.

We make analyzers for every part of the sulfur removal process – from SRU feed gas to the measurement of stack emissions, and everything in-between - so you get one convenient source for unparalleled engineering and support.

[AMETEKPI.COM/SRU](https://www.ametekpi.com/sru)

Localising graphene-enriched carbon fibre production in KSA

The groundbreaking venture establishes the Kingdom as a global leader in the production of the GIM GrapheneFibre, directly supporting the nation's Vision 2030 objectives of fostering innovation and sustainability

IN a significant step towards localising advanced materials production, Organized Chaos Holding (OCH) and Graphene Innovations Manchester (GIM) have launched GIM GrapheneFibre® in Saudi Arabia, marking the first-ever commercial production of graphene-enriched carbon fibre in the Kingdom.

This groundbreaking venture establishes Saudi Arabia as a global leader in the production of this high-performance material, directly supporting the nation's Vision 2030 objectives of fostering innovation, sustainability, and economic diversification.

By localising the manufacturing of graphene-enriched carbon fibre, the initiative strengthens Saudi Arabia's position in the advanced materials sector and contributes to the growth of local industries, workforce development, and technology-driven economic growth.

Graphene-enriched carbon fibre is a game-changer; it combines extraordinary strength, lightness, and conductivity to enable breakthroughs in aerospace, automotive, renewable energy, space, defence, and construction.

From local raw material sourcing to an em-

phasis on cutting-edge technologies, GIM GrapheneFibre stands as a beacon of Saudi excellence, accelerating the Kingdom's global influence in advanced manufacturing.

"Our mission is to revolutionise the advanced materials sector universally by bringing graphene-enriched carbon fibre to commercial scale," said Dr Vivek Koncherry, Chairman and CEO of GIM GrapheneFibre.

"By integrating graphene's remarkable properties into carbon fibre, we are pushing the boundaries of what's possible. We are delighted that this innovation was developed in close partnership with OCH, enhancing the Kingdom's role as a global technology leader," he added.

Ahead of his visit to Saudi Arabia the UK Prime Minister, Sir Kier Starmer's office heralded the deal between GIM and OCH as prime initiative of Saudi UK Partnership.

"We are committed to leveraging Saudi Arabia's abundant resources and homegrown talent," stated Abdulrahman Assaker, Chairman of OCH.

"This investment supports Vision 2030 by



This will be the first time Saudi Arabia commercially produces graphene-enriched carbon fibre

building local expertise, unlocking more sustainable applications for oil resources and creating more opportunities in high tech industries, firmly positioning the Kingdom as a leader in advanced materials. This project will contribute by adding over 4,500 new skilled jobs to Saudi Arabia's economy by 2030, generating revenues exceeding SAR 6 billion."

"Our strong partnership with GIM and shared vision ensures that we bring the best of international know-how to Saudi Arabia," added Abdulghani Al-hindi, CEO of OCH.

"By prioritising and harnessing innovation, we are developing an ecosystem that

nurtures entrepreneurs, empowers the workforce, and strengthens the economic fabric of our nation. This project produces raw materials that will attract state of the art industries to localise advanced manufacturing in Saudi Arabia"

The launch of GIM GrapheneFibre's commercial production is underpinned by a forward-looking operational strategy that emphasises speed, adaptability, and intelligent resource allocation.

"We are deploying the 'CHON Concept' a framework integrating artificial intelligence, open innovation, rapid prototyping and investment, and lean startup principles to accelerate product development and continuously improve performance," explained Abdul Rahman Khalidi, COO of OCH.

"This holistic approach ensures that our operations remain agile, efficient, and resilient."

"Our mission at OCH is to transform innovative, unconventional ideas in Saudi Arabia into viable business opportunities," said Areej Alturki, Chief Strategy Officer of OCH.

"By investing in advanced tools, encouraging talent, and engaging with diverse partners, we are working to shape a future-ready environment that supports sustained growth and perpetual advancement of Science and Technology. We invite industry leaders and innovators to collaborate with us on this exciting journey at och.sa/collab."

Backed by OCH's robust investment framework and GIM's technological acumen, the impact will echo far beyond factory floors reinforcing Saudi Arabia's global standing, empowering local communities, and unlocking the transformative potential of advanced materials.

This milestone symbolises not only a new era of industrial capability, but also a brighter, more dynamic future in line with the Kingdom's enduring vision.

شركة الرشيد درسر للصمامات والأجهزة المحدودة Dresser Al Rushaid Valve & Instrument Co. Ltd



**NB, UV and VR certified 'safety relief valve'
Manufacturer and repair centre in KSA**

ISO 9001-2015 CERTIFIED • ISO 45001-2018 CERTIFIED • ASME CERTIFIED



• Control Equipment
**Largest manufacturer of
Valves, Instruments,
Transmitters and Regulators
in Saudi Arabia**



Consolidated
a Baker Hughes business
Safety Relief Valves

Masoneilan
a Baker Hughes business
Control Valves

P.O. Box 10145, Tareeg 124, Jubail Industrial City 31961, Kingdom of Saudi Arabia

Tel: +966 13 3410278, Fax: +966 13 3417624

Branch: P.O. Box 70, Tareeg 3, Yanbu Industrial City. Tel: +966 14 3573777, Fax: +966 14 3571234

Email: sales@darvico.net – www.darvico.com

SABIC youth initiative inspires innovation

SABIC's 'Lights of Our Future' programme, its global corporate social responsibility (CSR) initiative, aims to inspire and empower young people, particularly in the area of sustainability, by enhancing their awareness and encouraging an innovative mindset for environmental protection.

Originally launched in Asia, the programme has been active in China for over a decade. In collaboration with JA China, a non-profit organisation focused on student education in work readiness, entrepreneurship, and financial literacy, the programme includes a variety of educational activities, including lessons, competitions, and workshops.

The key aspects of the Lights of Our Future programme include:

- **Sustainability education:** The programme educates students on sustainability from an economic perspective, helping them understand the long-term significance of environmental protection and the practical applications of sustainability in everyday life.

- **Community engagement:** SABIC employees volunteer to design and teach customized curricula, contributing thousands of hours over the years to mentor young participants.

- **Competitions and activities:** A highlight of the programme is the Sustainable Development Design Competition, where students propose innovative solutions to urban sustainability challenges, such as designing sustainable urban public spaces.

- **Workshops and plant tours:** Students also engage in hands-on learning through plant tours and interactive sessions, providing them with insights into chemical production, operational safety, and the practical applications of sustainability in industry.

The programme celebrates its 10th anniversary in China in 2024 and has impacted over 19,000 students from more than 80 schools, fostering a new generation of leaders committed to advancing sustainability and shaping a better future.