Executing Transformation and Investing in Growth

26–28 November, 2018 - Madinat Jumeirah, Dubai, UAE
The Annual GPCA Forum has cemented its reputation as the foremost gathering for chemical industry leaders in the Arabian Gulf region and earned international recognition as an important global forum for the exchange of ideas and networking. Starting as a modest industry gathering in 2006, the forum has grown over the years to become the regional premium platform for facilitating knowledge sharing, collaboration and best practice exchange among industry stakeholders in the GCC and globally. The forum offers an ideal opportunity to share strategic insight and market intelligence on chemicals and petrochemicals, helping delegates to navigate through the changing chemical environment and make the most of new opportunities.

"It was a true honor for me to be at the 13th Annual GPCA Forum for the first time in the presence of global and regional industry leaders. We were brought together by our interest in the GCC as a producer of petrochemicals, and the GPCA is proof that the petrochemical sector is a robust sector in which strong global growth rates are achieved."

H.E. Shaikh Mohammed bin Khalifa bin Ahmed Al Khalifa, Minister of Oil, Bahrain
Building on last year’s theme of the imperative for transformation, the 2018 program examined strategies, case studies and the steps companies can take to enhance their transformational journey. Industry leaders emphasized on the need to invest strategically, prepare for global growth and face the challenges of a changing business environment. Other key topics that came under the spotlight were digitalization, cyber security, redefining refining and petrochemical integration, relocating to emerging markets and embracing the move to a circular economy.

The main conference program offered the visionary thought leadership and insight industry leaders have come to expect from the Annual GPCA Forum, while a range of seminars and masterclasses provided more practical tools and strategies to address future challenges. A special focus was given to sustainability, with GPCA launching its first Sustainability Initiative and Sustainability Zone. Another first for the forum was the inauguration of the exhibition by H.E. Shaikh Mohammed bin Khalifa bin Ahmed Al Khalifa, Minister of Oil, Bahrain. His Excellency was accompanied by dignitaries from Saudi Arabia, including Prince Saud bin Abdullah bin Thenayan Al-Saud, Chairman of the Royal Commission for Jubail and Yanbu and Chairman of SABIC.
THE FORUM IN NUMBERS

Over 2,000 delegates from 623 companies in 49 countries attended the forum in 2018. Over the three days of the event, attendees enjoyed a particularly rich program, covering a wide range of topics across 16 sessions and nine masterclasses and seminars.

“The Annual GPCA Forum provides an excellent opportunity to catch up with the latest trends in the global chemical and petrochemical industry. The event is packed with knowledge which offers a unique balance between research and industrial applications.”

P. Raghavendra Rao, Secretary, Department of Chemicals and Petro-Chemicals, India
“The GPCA has become the voice of the chemical industry in the Arabian Gulf region since 2006. And this year’s forum arrives at just the right moment to reflect on the progress – and discuss the future – of the Gulf petrochemical and chemical industry.”

Jim Fitterling, CEO, Dow Chemical Company
In total, 40 world-class industry experts from leading chemical and petrochemical organizations in the GCC and globally took part in the program and shared exclusive industry analysis and insight with delegates over the three days of the event. For the first time, the inaugural address was presented by H.E. Shaikh Mohammed bin Khalifa bin Ahmed Al Khalifa, Minister of Oil, Bahrain, with Yousef Al-Benyan, Vice Chairman and CEO, SABIC and Chairman, GPCA, delivering the welcome address. Keynote speakers on day one and two, respectively, were Amin Nasser, President and CEO, Saudi Aramco, and Dr. Aabed Al-Saadoun, Deputy Minister for Company Affairs, Ministry of Energy, Industry and Mineral Resources, Saudi Arabia.

H.E. Shaikh Mohammed bin Khalifa bin Ahmed Al Khalifa
Minister of Oil, Bahrain

Yousef Al-Benyan
Vice Chairman and CEO, SABIC and Chairman, GPCA

Amin Nasser
President and CEO, Saudi Aramco

Raghavendra Rao
Secretary, Chemicals and Petrochemicals, Department of Chemicals and Petro-Chemicals, India

Jim Fitterling
CEO, Dow Chemical Company

Mark Lashier
President and CEO, Chevron Phillips Chemical Company

Daniele Ferrari
CEO, Versalis

Murat Sönmez
MD, Head of Centre for the Fourth Industrial Revolution, World Economic Forum

Fernando Gómez
Head of Chemistry and Advanced Materials Industry, World Economic Forum

Dr. Aabed Al-Saadoun
Deputy Minister for Company Affairs, Ministry of Energy, Industry and Mineral Resources, Saudi Arabia

Musabbeh Al Kaabi
CEO, Petroleum and Petrochemicals, Mubadala

Mutlaq Al-Morished
CEO, TASNEE
“The Annual GPCA Forum is a valuable event, bringing together strong regional perspectives with business and thought leaders from around the world.”

James Seward, VP Sustainability, Technology and JVs, LyondellBasell and Chairman, World Plastics Council

Seminar speakers

Dave Andrew
VP, Sustainability, ExxonMobil

Lorraine Francourt
Director, Chemicals Management Policy and Circular Economy, Dow Chemical Company

Craig Halgreen
Director, Sustainability and Public Affairs, Borealis

James Seward
VP, Sustainability, Technology and JVs, LyondellBasell and Chairman, World Plastics Council

Masterclass speakers

Anders Brun
Partner, McKinsey & Co.

Frithjof Netzer
Chief Digital Officer, BASF

Thorsten Wenzel
VP and Global Head of Chemicals, SAP

Fatema Al Nuaimi
CEO, ADNOC LNG
Masterclass speakers

Abeer Al-Omar
Senior Executive, Corporate Communications and Government Affairs, EQUATE

Nathalie Brunelle
SVP, Corporate Affairs Refining and Chemicals, Total

Gina Fyffe
CEO, Integra

Murhaf Al-Madani
VP, Global Information Technology and CIO, SABIC

Dan Caban
Managing Consultant for Incident Response and Digital Forensics, Mandiant, FireEye

Khalid Al-Harbi
Chief Information Security Officer, Saudi Aramco

Ahmad Al-Saleh
Global Business Director, Ethylene Glycol, EQUATE and Vice Chairman, International Trade Committee, GPCA

Paul Harnick
Global Head of Chemicals and Performance Technologies, KPMG

René van Sloten
Executive Director, Industrial Policy, European Chemical Industry Council

Michael Walls
VP Regulatory and Technical Affairs, American Chemistry Council
Seminar speakers

Alan Gelder  
VP, Refining, Chemicals and Oil Markets, Wood Mackenzie

Gordon Haire  
Head of Aromatics, Wood Mackenzie

Udo Jung  
Senior Partner, Chemical Practice, Boston Consulting Group

Mirko Rubeis  
Partner and MD, Boston Consulting Group

John Richardson  
Senior Consultant, Asia, ICIS

David Hughes  
CEO, International eChem

Matthew Hartley  
Senior Consultant, Individual Project Studies, Tecnon OrbiChem

Gillian Tweddle  
Business Manager, Individual Project Studies, Tecnon OrbiChem

Moderators

John Pearson  
Founder and CEO, Chemical Industry Roundtables

Lyn Tatum  
Group VP, IHS Markit

John Richardson  
Senior Consultant, Asia, ICIS

Dyala Sabbagh  
Partner and COO, Gulf Intelligence
The inaugural address at the 13th Annual GPCA Forum was delivered on the main day of the event by H.E. Shaikh Mohammed bin Khalifa bin Ahmed Al Khalifa, Minister of Oil, Bahrain. His Excellency began his presentation by highlighting that plastics demand growth over the past 50 years has consistently outstripped GDP growth by a long margin thanks to versatility, rapid innovation, the discovery of new materials, and availability of feedstock. The GCC has long been a leader in cost advantaged feedstock and during the past 20 years, has successfully become a major producer of polyolefins. However, the region’s competitive advantage is starting to diminish due to decreased availability of ethane in the region, His Excellency noted. As the feedstock mix turns increasingly to liquids, improving the overall cost structure of operations will be an important step in which governments and producers can both play an increasing role, the Minister said.

Refining and petrochemical integration will also be needed as it would enable producers to reduce costs. However, mixed crackers and integration alone will not make up the value lost from reduced availability of low-cost feedstock. Countries and regions that will prosper in this regard will be the ones with close proximity to cheap feedstock and access to a large market such as the US with its abundant shale oil and gas reserves, the Minister said.

He further touched upon the role of Industry 4.0 and digitalization as enablers for saving costs and improving companies’ competitive position. According to His Excellency, the GCC could derive significant opportunities from a more evolved natural gas and petrochemical infrastructure. He cited the possibility of building hydrogen grid in Jubail, Saudi Arabia, an ethylene network between Jubail and Kuwait, and a pan GCC pipeline. Regional producers must learn from the lessons of European clusters on how to remain competitive yet cooperate and stay connected, His Excellency concluded.

The GCC region’s leading decision-makers from the government and industry sectors shared their perspective on the opportunities for executing transformation and the importance of investing in growth.

“Winners in this new world will be those who turn intention into reality with new enterprises becoming leaner, quicker and safer.”

H.E. Shaikh Mohammed bin Khalifa bin Ahmed Al Khalifa, Minister of Oil, Bahrain
However, the industry today is going through a transformation as major shifts are taking place across technology, feedstock, and markets. Transformation across the value chain is forcing global and GCC chemical industry players to transform by focusing on portfolio transformation, and more importantly, their competitiveness, and growth measures. To remain relevant in this rapidly changing business environment, industry players must create winning partnerships and address growth through collaboration with companies in Asia and globally by offering the right value proposition, Al-Benyan said. They must partner with technology providers to drive digital efforts that can improve competitiveness and create new growth for their shareholders. And finally, companies must collaborate with customers and drive innovation to address the rapidly changing needs of end-use markets, he added. Al-Benyan further pointed out that digitalization in a typical chemicals business can deliver an EBITDA improvement of about 10 - 12%. With the feedstock advantage for the past 40 years no longer relevant, the Arabian Gulf chemical industry must transform in order to survive, Al-Benyan concluded.

Day one keynote address

Delivering the keynote address on day one, Amin Nasser, President and CEO, Saudi Aramco, highlighted the industry’s role as a key driver in the GCC region’s economic development. Saudi Aramco’s vision for future expansion and growth reflects the kingdom’s transformation efforts, as the company pushes ahead with plans for consolidation and downstream expansion. Nasser then described the four key elements in Saudi Aramco’s strategy. One is integration of petrochemicals with its refinery network, increasing the company’s presence downstream and increasing value added. Second, the development and implementation of ground-breaking crude oil-to-chemicals direct conversion technologies in the kingdom. Third, pursuing mergers and acquisitions that will support the company’s integration plans and create economies of scale.

Nasser further revealed in front of the Annual GPCA Forum audience that Aramco’s goal is to convert 2-3 million barrels of oil a day into petrochemicals. Innovation is the fourth key element in the company’s transformation strategy and includes investing in ideas and technologies for new end-user applications of chemical products, Nasser said. For example, Aramco recently signed a non-metallic materials research partnership with the University of Cambridge. This will create value by providing new downstream
applications for Saudi Aramco’s products, affording the company a presence from extracting the oil from the ground to developing finished product. Nasser also expressed his plans to rebalance the company’s portfolio by pursuing both organic and inorganic growth. While the company had a previous target of moving from 5-6% integration to 11% integration, it now envisions to achieve 20-25% integration, using its feedstocks to produce chemicals. Although oil has not historically been as advantaged a feedstock as gas, primarily due to cost, the price of oil continues to decrease, making it increasingly more attractive as a petrochemical feedstock, Nasser said. He also added that Saudi Aramco is planning to capitalize on this trend by scaling up the technologies it developed. Nasser concluded his presentation by saying that all these developments will stimulate growth and create new jobs, helping to support Saudi Vision 2030.

“Our chemicals vision is supported by the development of ground-breaking crude oil-to-chemicals direct conversion technologies, where we are already seeing major progress in advanced thermal and catalytic cracking processes.”

Amin Nasser
President and CEO, Saudi Aramco

Day two keynote address

The keynote address on day two was delivered by Dr. Aabed Al-Saadoun, Deputy Minister for Company Affairs, Ministry of Energy, Industry and Mineral Resources, Saudi Arabia, who focused on the role of the chemical industry as a pillar in the kingdom’s transformation strategy. As part of the Saudi Vision 2030, the National Industrial Development and Logistics Program (NIDLP) aims at developing decisively the industrial landscape of the kingdom, Dr. Al-Saadoun told the audience. The NIDLP has four main aims: 1) provide a competitive enabling environment for priority sectors; 2) accelerate innovation to sustain existing, and create new, advantages; 3) leverage Saudi Arabia’s natural endowments with maximum socio-economic return; and 4) leverage demand and position to seed strategic competitive advantages. The program will be driven through 24 components and more than 300 initiatives, he added.

Chemicals are an important stepping stone for the kingdom’s industrial diversification as it contributes to a variety of sectors and applications. Its contribution ranges from automotive and aviation through manufacturing carbon fiber and plastic components, to producing construction materials such as plastic pipes, paint and specialty coatings, flame retardants. As well as food processing and packaging, with the manufacture of films, fiber, packaging and food ingredients, and chemicals for the pharmaceutical industry and mining. To support and advance the development of the chemical industry in the country, Saudi Arabia has devised a chemicals cluster strategy that envisions 3.5% YoY petrochemical growth rate maintaining global market share, in addition to 18 specialty chemical groups and eight conversion segments developed in the kingdom. Saudi Arabia’s cluster program further aims to ensure focus on innovation, as well as operational and commercial excellence across the full value chain. Dr. Al-Saadoun added that Value Parks are the main catalysts for the chemicals cluster development, integrating KSA’s full value proposition for chemical investors. They provide managed and serviced parks with specialized infrastructure targeting chemicals players; proximity to feedstock supply at advantageous prices; and on site / competitive availability of ecosystem of suppliers. Currently in Saudi Arabia two parks are operational, with six more under development.

“Saudi Arabia has devised a chemicals cluster strategy that envisions 3.5% YoY petrochemical growth rate maintaining global market share.”

Dr. Aabed Al-Saadoun
Deputy Minister for Company Affairs, Ministry of Energy, Industry and Mineral Resources, Saudi Arabia
Raghavendra Rao, Secretary, Chemicals and Petrochemicals, India, began his address by highlighting India’s economy as one of the fastest growing globally. India is expected to grow at a rate of over 7% in the coming years, and will soon become the world’s fifth largest economy, overtaking the UK. By 2025, it is expected to surpass China and become the world’s most populous country. India’s chemical and petrochemical industry is a vital component of daily life, covering 80,000 products and employing 2 million people, according to figures in 2017. With strong growth drivers such as high population increase, high industrial demand, rapid urbanization, and economic growth, India’s chemical and petrochemical industry is projected to surpass global chemical growth at a rate of 9.3% between now and 2025, compared to 5.5% for the global industry, Rao said. To meet growing demand for chemicals, India will need five crackers by 2025, and an additional 14 by 2040. Investment potential in petrochemicals alone for these crackers is approximately USD 65 billion.

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Raghavendra Rao
Secretary, Department of Chemicals and Petro-Chemicals, India

To capitalize on this growth, Saudi Aramco and ADNOC recently concluded the largest overseas investment in the Indian chemical industry at the Ratnagiri refinery. This is just one example of the GCC’s strong energy partnership with the Indian subcontinent as regional producers supply 60% of India’s total energy imports, while GCC exports to India grew at an annual rate of 43% in the last decade. Furthermore, Rao added, India is the world’s 3rd largest consumer of polymers and 6th largest producer of chemicals, thereby having a huge domestic demand. As the GCC intensifies its efforts to diversify its economy, cooperation in the field of science and technology, services, manpower and access to emerging markets will be a must. India can play a key role as strategic partner to the GCC thanks to its innovation capabilities, constantly growing manufacturing sector, and young and highly skilled talent pool, Rao concluded.

Industry leaders from all over of the globe attended the 13th Annual GPCA Forum to share their insight into how to address the chemical industry’s most pressing challenges and create future growth.
Transformation through merger and dealing with structural change

Jim Fitterling, CEO, Dow Chemical Company, shared his perspective on navigating change at a time of challenging market conditions. The Dow-DuPont merger and spinoff are coming at a time of great uncertainty and volatility – but as Fitterling explained, for the chemical industry, uncertainty and volatility always seem to be the norm. The industry is constantly having to deal with declining margins due to ageing products, intense competition, and high customer demands. The Fourth Industrial Revolution, Internet of Things and 3D printing are among the top key trends disrupting the industry today but also creating new opportunities for the future. Realizing this potential, Dow is taking digitalization down to the shop floor by implementing big data, robotics, process automation and the use of drones into its various operations. The average age of an ethylene cracker in Europe is 40 years, with shutdowns being very costly. By utilizing and investing in technology to monitor and prevent disruptions, companies can make significant savings in the long run, Fitterling said.

“Agility and adaptability are the key to success – those in the industry that face up to these challenges and successfully adapt will not regret it.”

Jim Fitterling
CEO, Dow Chemical Company

Mergers and acquisitions can also play a key role in ensuring future competitiveness. As Dow and DuPont merge and split into three new companies, they will effectively create three better-targeted, more agile entities, able to serve their respective markets more effectively and efficiently, Fitterling said. It will be interesting to see how companies will balance the routes to growth over the next few years, e.g. targeted capital investment or M&A, he added. The circular economy, albeit still in its nascent stage, also stands to create enormous opportunities for the chemical industry in the future. The world’s population is now over 7.5 billion and adding 200,000 people a day. The industry will have a key role to play in meeting future demand for resources in a sustainable and cost-effective manner, he concluded.

Transformational investment and regional partnership as routes to growth

Mark Lashier, President and CEO, Chevron Phillips Chemical Company, discussed the benefits and opportunities of forging strategic partnerships as part of a company growth strategy. According to Lashier, Chevron Phillips was the first company to announce that it was taking advantage of the shale revolution in North America. The Middle East has been at the top of the advantaged feedstock curve for decades, but the shale revolution repositioned North America from the bottom to the top. Lashier believes that both North America and the Middle East will continue to share this top position in the long term, despite the GCC region facing more challenges than in previous years.

The expansion of the global middle class continues apace and is expected to reach 5.2 billion in just 10 years from 3.2 billion in 2016. Most of the growth will take place in India and China, as 88% of the next entrants to the middle class are expected to come from Asia. The route to success can be pursued through both organic and inorganic growth. There has been plenty of M&A over the last few
years, helped by very low interest rates. Chevron Phillips is planning to do both, as and when necessary. Furthermore, Lashier believes that partnerships offer significant advantages such as sharing the huge financial burden of new projects among others. And when it comes to striking regional partnerships, mitigation of risk is crucial as is a mutual interest in having a global footprint. Investing in a regional partnership can also secure access to diverse supply chain routes and provide optimization opportunities, as well as access to enhanced project management and technical capabilities, Lashier said.

“Both North America and the Middle East will continue to be at the top of the advantaged feedstock curve for decades, even if the Middle East is facing some challenges compared to before.”

Mark Lashier
President and CEO, Chevron Phillips Chemical Company

The Fourth Industrial Revolution

Murat Sönmez, Managing Director, Head of Center for the Fourth Industrial Revolution and Global Network, World Economic Forum, and Fernando Gómez, Head of Chemistry and Advanced Materials Industry, also at the World Economic Forum, discussed Industry 4.0 and its impact on society, business and governance, as well as the global chemical industry. The Fourth Industrial Revolution is upon us and it will dramatically change the way societies function, Sönmez told the audience. He gave as an example a 3D printer being used to quickly manufacture a copy of a human heart ready to be used for transplant. For his part, Gómez explained the impact of the Fourth Industrial Revolution on the chemical industry. He urged industry leaders to think systems not technologies; empowering not determining; by design not by default. Artificial intelligence and machine learning, coupled with developments such as drones, the IoT and 3D printing will transform the way the industry works. Automated drones are currently being trialed in agriculture and surveying buildings. They also have a place in the chemical industry for inspecting plants safely and cost effectively.

“The Fourth Industrial Revolution is upon us and it will dramatically change the way societies function.”

Murat Sönmez
Managing Director, Head of Center for the Fourth Industrial Revolution and Global Network, World Economic Forum
Mutlaq Al-Morished, CEO, TASNEE, described the challenges and opportunities to create value from divestment. Running a business that is financially distressed is always challenging, but opportunities still exist to make the business leaner and generate greater stakeholder value. One way is through streamlining operations through headcount reduction; shared services with an effective corporate HQ; and formulating focused Strategic Business Units (SBUs). Dept restructuring is another avenue for value creation and growth, explained Al-Morished, giving as an example TASNEE, which back in 2017 refinanced the credit facilities at HQ level (SR 3.9 bln), to alleviate liquidity constraints. By divesting highly-leveraged non-core assets and focusing instead on its core-business of petrochemicals, TASNEE was also able to create further value for its stakeholders. Post-divestiture, the company would create debt capacity for strategic growth and returns to the shareholders, Al-Morished said. In conclusion, he added, it is important to have a good team that has embraced the philosophy and supports you throughout the journey.
The economic model that has applied since the birth of the plastics industry is that raw materials are mined and converted into useful products. This model, also known as the take-make-dispose model, is now being replaced by a new concept – the circular economy. In this model of the economy, raw material and energy inputs are minimized, and waste is reused or eliminated by keeping products in circulation. The effect is slowly to decouple economic growth from the use of new finite raw material supplies. Experts agree that new value can be unlocked by pursuing circular economy concepts. But how will this new model impact the chemicals and plastics industries in the years ahead?

Delegates at the GPCA 13th Annual Forum had the chance to learn from four experts in the field, who gave an overview of the nature of the circular economy and how plastics producers can participate in it.
Leading the circular economy transformation in the chemical industry

Leading up to the seminar on day one, Daniele Ferrari, CEO, Versalis, and President, Cefic, presented on one of the key topics for the chemical industry today – circular economy and opportunities for chemical producers. Ferrari highlighted rapid population growth and the rise of mega cities, especially in developing economies, as some of the key trends that will speed up the rate at which plastic waste is produced. While in the early 1980s, there was only three cities in the world with over 10 million people. Today there are 33, and by 2030, there may be 43 and each one of those much bigger than now. Plastic waste is expected to jump to 2.59 billion tons in 2030 and 3.40 billion tons in 2050, from 1.3 billion tons in 2012, Ferrari told delegates.

The winners in this scenario will be those that can successfully manage this growth, and the circular economy model should be considered as a natural and necessary step, Ferrari added, calling on the chemical industry to be at the forefront of this evolution.

To enable the circular economy changes to all stages of a product lifecycle will be required – from raw materials, design, production, remanufacturing, and distribution to consumption, re-use, repair and recycling. This transformation of industry and consumer behavior at all stages of this cycle can lead to dramatic reductions in residual waste, Ferrari said. For example, sourcing alternative feedstocks at the raw materials stage; designing end-user products to be more environmentally friendly; improving efficiency at the production stage; as well as developing new and improved recycling processes and supporting their expansion. These challenges are already at the doorstep of ENI, as the EU is pushing for radical targets such as 100% of plastics being recyclable or reusable by 2030. In response to these changes, the company is now investing in innovative and sustainable solutions and developing an integrated platform of chemicals from renewables.

Industry sustainability and the circular economy

Dave Andrew, Vice President of Sustainability, ExxonMobil Chemicals and Downstream, introduced the concepts of the circular economy and applying them to the plastics value chain. He pointed out that the chemical industry already practices circular economy thinking within its own value chain where by-products of one process may be the feedstock of another, and waste and raw materials losses are minimized. The issue is where and how the industry’s value chain intersects with other value chains. In the case of the plastics value chain, this includes how the industry deals with plastics waste.

The opportunity of the circular economy is to view waste as a valuable feedstock, and to engage in partnerships and innovation to recover and use it. This means getting involved in establishing a waste collection and management infrastructure and creating incentives to stop waste leakage. It also means innovation and new technology that can be developed at scale and have a material effect on the waste problem. On top of these aspects, the plastics industry must collaborate with NGOs, brand owners, consumers, technology companies and waste processors to create platforms for products and processes in harmony with the circular economy.

“The opportunity of the circular economy is to view waste as a valuable feedstock, and to engage in partnerships and innovation to recover and use it.”

Dave Andrew
Vice President of Sustainability, ExxonMobil Chemicals and Downstream
Key takeaways

» Around 12-15% of plastic waste is recycled globally (although Western Europe has a higher rate of around 35%), indicating that waste is simply not well-collected or managed. On top of that, 60% of plastics consumed are difficult to recycle.

» The markets where plastics consumption is growing fastest are more prone to plastics leakage into the eco-system.

» The business case for the circular economy is to provide customers with better or new experiences and solutions. These involve innovating services and markets, providing solutions for waste, and digitalization. Moving from a linear economy to a circular one requires three steps:
  » Analyzing the business landscape for linear threats and circular opportunities. Doing this involves cross-functional and cross-regional dialogue, as well as staying on top of market developments, and establishing a company’s national, regional and global priorities.
  » Defining the new partnerships and collaborations needed to “go circular”. These can take place up and down the value chain, with business, government and academia.
  » Piloting ideas and developing learnings, before scaling up in a timely way.

» GCC plastics producers can seize the opportunity to participate in the circular economy. Possible initiatives include developing circular economy technology, and designing products for recycling and reuse, optimizing waste collection and educating consumers about waste, standardizing types of waste for usability, and developing sustainable recycling to produce raw materials with “virgin chemical” properties.

Implementing circular economy business strategy: Innovation for markets, customers and natural resources

Lorraine Francourt, Director, Chemicals Management Policy and Circular Economy, Dow Chemical Company, outlined how to develop a circular economy strategy and justify investments. She started by stressing that the circular economy is about capturing more value from critical sources, as well as the means of production and supply. By implementing a closed loop economic model, governments can capture more value from critical resources through ensuring greater availability of materials, land, water and others; lower price volatility; and minimizing regulatory costs. At the same time, companies can provide customers with better, or new experiences and solutions by introducing new services and markets and new solutions for managing waste; and by linking their services to digitalization. Some of the challenges that companies would need to consider are how to maintain the functional and social benefits of plastics and low environmental impact through innovative design; developing and supporting reuse formats; investing and collaborating on global waste management infrastructure to improve recovery; increasing recyclability of packaging and stimulating recycling markets. However, to enact a real shift from linear to circular economic model, cross-functional and cross-regional dialogue and awareness building will be required. Companies would also need to identify the investments needed and the existing risks by utilizing research and development, existing assets and robust infrastructure.

“The circular economy is about capturing more value from critical sources, as well as the means of production and supply.”

Lorraine Francourt
Director, Chemicals Management Policy and Circular Economy, Dow Chemical Company

How GCC players can capture opportunities in the circular economy

Craig Halgreen, Director, Sustainability and Public Affairs, Borealis, discussed how GCC players can capitalize on the opportunities within the circular economy. The plastics industry has outperformed other industries in formulating solutions to societal challenges but designing end-of-life scenarios of plastic products is just as important. Regulators are driving the change to address this. The EU Strategy for Plastics 2030 requires 55% of recycled content in plastics packaging; over 50% of plastic waste generated to
The chemical industry in the GCC and globally share an important responsibility to contribute to stopping the current leakage of plastics into the ocean.

Craig Halgreen
Director, Sustainability and Public Affairs, Borealis

Key takeaways

» Energy recovery is always going to be part of the plastics cycle, even as recyclable and recycled products rise in importance.

» It is important to move projects from pilot to full-scale in a reasonable time.

» There is no reason why pursuing a circular economy in plastics will dent profitability for chemical companies:
  » Demand for plastics will continue to grow strongly to provide the sustainable solutions needed to advance
  » Development of chemical recycling technology where molecules are recovered for reuse will produce plastics with the same full range of properties as “new” products from “virgin” sources. Thus, there should be no impact on prices for recycled polymers compared with those made with “virgin” hydrocarbons.
  » There are four key success factors for the chemical industry in the circular economy: value chain collaboration, engagement with regulators, designing products for recycling and reuse, and circular innovation and technology.

“The chemical industry’s contribution to the circular economy lies in energy recovery and advanced recycling.”

James Seward
Chairman, World Plastics Council, and VP, Sustainability, Technology and JVs, LyondellBasell

The role of circularity in a sustainable plastics economy

In the final presentation, James Seward, Chairman, World Plastics Council, and VP, Sustainability, Technology and JVs, LyondellBasell, highlighted the role of circularity in a sustainable plastics economy. Seward stressed that plastics are key enablers in achieving the Sustainable Development Goals defined by the United Nations. While demonstrating and promoting the sustainability of plastics, the plastics industry must be part of the solution to environmental and marine litter. Dialogue and global cooperation are crucial to being able to achieve this. Seward also gave an example of a circular economy alliance developed by LyondellBasell. The company has entered into an arrangement with Suez Alliance, with the aim to contribute to the circular economy by providing both virgin and “circular” polymers.

Part of the chemical industry’s contribution to the circular economy lies in energy recovery and advanced recycling. On the energy recovery side of the equation, waste-to-energy processes can be used to produce electricity and steam, while more advanced processes can produce engineered solid fuels. In advanced recycling and recovery, the opportunity lies in gasification to produce fuels and chemicals, pyrolysis to crude oil, naphtha, wax, transportation fuel, and monomers; and hydro-pyrolysis to produce diesel, gasoline and jet fuel. Through advanced recycling and recovery, fuels, chemicals (ethanol, methanol), crude oil, naphtha, even jet fuel and diesel can be produced, among other products. Closing the loop to end plastic waste will require: 1) Robust collection, sorting, processing, and offtake of waste; 2) Investment and innovation; 3) New business models, and new technologies. It will further involve the whole value chain and full commitment to providing a solution, Seward said.

Meanwhile, NGOs are driving change partly through the New Plastics Economy Global Commitment. Brand owners are becoming aware of their impact, with clean-up campaigns highlighting the brands most associated with ocean pollution. Just 10 companies control a multitude of fast-moving consumer goods brands. Throughout the value chain, customers’ needs are changing. GCC players must seize this as an opportunity and embrace change – or it will dwindle in significance; they should support better recycling rates, optimize treatment of imported recyclable products, and promote development of new materials. The chemical industry in the GCC and globally share an important responsibility to contribute to stopping the current leakage of plastics into the ocean, Halgreen said.
Women in the chemical industry

Ensuring a balance of male and female employees, and bringing more young women into the industry, leads to more efficiently managed organizations that perform better in the stock market. This was the underlying message sent by the all-female panel during the well-attended ‘Women in the chemical industry’ masterclass on day zero. The drive to ensure more women enter and stay in the chemical industry is an important one and needs to be pursued if companies are to succeed in the future, argued participants. Furthermore, important steps towards increasing gender diversity include; setting of targets for female participation at senior levels, the use of mentoring, facilitating roles in previously inaccessible areas such as production sites, and addressing familial prejudices that see women dissuaded from working in the industry.

Fatema Al Nuaimi, CEO, ADNOC LNG, and one of the panelists, highlighted ADNOC’s efforts to establish a gender balance committee across the value chain as the company’s leadership had recognized that it needed to ensure and encourage opportunities for women to progress and reach their full potential. Gender diversity brings innovation, new experiences and new ideas, Al Nuaimi said. It is important to have women alongside men at the discussion table; in particular, more women are needed in operational roles, she added. In line with its efforts to champion gender diversity and include greater level of participation of females in its workforce, ADNOC has doubled the percentage of women in senior roles and there are now two female CEOs within the ADNOC group of companies.

“It is important to have women alongside men at the discussion table; in particular, more women are needed in operational roles.”

Fatema Al Nuaimi
CEO, ADNOC LNG
Abeer Al-Omar, Senior Executive, Corporate Communications and Government Affairs, EQUATE, argued that there were a number of challenges to overcome, notably that many women, although educated in science and engineering, do not feel that the chemical industry environment is fit for them. How can successful women be attracted? Men have a role to play both at home and at work by building women’s self-confidence, Al-Omar said. She added that change needs to be driven from the top and it is vital for the success of encouraging more women into the industry that senior leadership believes in the necessity for change.

Also taking part in the masterclass was Nathalie Brunelle, SVP Corporate Affairs Refining and Chemicals, Total. Brunelle noted that mentoring is highly encouraged within Total, to help women become more confident and share experiences. In addition, Total has implemented an equal pay policy which is having a positive impact on female recruitment and engagement, she said. However, only 22% of the global workforce in chemicals are women, and part of this problem is a lower number of women compared to men choosing STEM higher education, Brunelle believes.

Gina Fyffe, CEO, Integra, added that diversity does lead to better outcomes and that employing more women can lead to a virtuous circle whereby more women apply for posts once they perceive the company is gender balanced. Integra is a gender-blind company, Fyffe said. “You only know that you are doing the right thing when you advertise a position and close to 50% of the applications are women,” she said. It is not about quotas, it is about attracting a balanced set of applicants to begin with, Fyffe concluded.

“Only 22% of the global workforce in chemicals are women, and part of this problem is a lower number of women compared to men choosing STEM higher education.”

Nathalie Brunelle
SVP Corporate Affairs Refining and Chemicals, Total
Cyber security in the chemical industry

Cyber attack is a growing issue for chemical companies and the risk must be managed on a business basis and not just as an IT challenge. Companies can expect to have their IT and operating technology (OT) systems compromised and must ensure they have plans in place to address the impacts on business if the cyber attack disrupts production or the ability to do business. These were some of the takeaways during the masterclass on ‘Cyber security in the chemical industry’ on day zero.

All three panelists stressed the need to educate the workforce to look out for and report phishing emails, which are still the main form of attack – accounting for over 90% of cyber breaches. Companies should expect attacks and not be in denial of the problem. They need to assess the business risks and execute plans to mitigate the “catastrophic damage” that could be caused.

Murhaf Al-Madani, VP, Global Information Technology and CIO, SABIC, advised that companies must take a broad strategic approach, not just a tactical one to combating cyber attacks. Companies need to reach a balance between digitalization and cyber security, he added. Greater digitalization inevitably increases the ‘surface area’ to be attacked. Over the past few years, there has been a 600% increase in attacks on Internet of Things-related equipment. The more we use this technology, the more it will be attacked, Al-Madani concluded.

Khalid Al-Harbi, Chief Information Security Officer, Saudi Aramco, added that companies in the Arabian Gulf are more exposed to cyber attacks and must take a holistic and a strategic approach to reduce risk. Ultimately, it is a question of business risk, not a question of IT risk, Al-Harbi said. Companies could make their systems 100% immune to cyber attacks, but that would involve not using any networks, digitalization or the Internet of Things, he added. The extent to which a business wants to take on the risk of a cyber attack is directly linked to the extent of the benefits it receives from the networked equipment. Cyber risk is a fact of life for any company that relies on networked technology which is increasingly every company.

A balance must be struck between OT (Operational Technology) and IT functions in terms of which department covers which areas of threat. Certain OT and IT capabilities that are currently often split should be under one umbrella; others should be separate through so called patch management. It is a question of the two functions working together in order to work towards the best outcome. Hybridization can be very helpful, but it depends on the organization, how it works, what it does and how it is structured, Al-Harbi concluded.

“Companies could make their systems 100% immune to cyber attacks, but that would involve not using any networks, digitalization or the Internet of Things.”

Khalid Al-Harbi
Chief Information Security Officer, Saudi Aramco
“Once an attack is successful, it can remain undetected for a long time, with huge amounts of data being accessed.”

Dan Caban
Managing Consultant for Incident Response and Digital Forensics, Mandiant, FireEye

Dan Caban, Managing Consultant for Incident Response and Digital Forensics, Mandiant, FireEye, explained that most cyber attacks are being made by national states, looking for data and intellectual property theft rather than for financial ransoms. Once an attack is successful, it can remain undetected for a long time, with huge amounts of data being accessed, Caban said. “The more sophisticated our systems become, the more sophisticated will be the threats we face, and as soon as we ‘solve’ one issue, we will come across a new threat. It’s a continual arms war,” he added.

Threat intelligence sharing can help to protect companies. Sharing information too soon can also be counter-productive if it allows those who would do harm to get advance warning that they have been detected before a plan has emerged to eliminate the threat. The chemical industry isn’t more unprepared than most other industries. There is no one market that sticks out as being ‘ready’ - there are trendsetters and ‘laggers’ in all industries, Caban said.

The global chemical industry in an era of protectionism

Growing market protectionism represents significant emerging threats to the current trading arrangements for chemicals, industry leaders told delegates during this masterclass on day zero.

The panelists comprising Ahmad Al-Saleh, Global Business Director, Ethylene Glycol, EQUATE and Vice Chairman, International Trade Committee, GPCA; Paul Harnick, Global Head of Chemicals and Performance Technologies, KPMG; René van Sloten, Executive Director, Industrial Policy, European Chemical Industry Council; and Michael Walls, VP, Regulatory and Technical Affairs, American Chemistry Council; explained how companies and national industries can prepare for a more protectionist political environment without sacrificing the gains that globalization has brought to the industry in the past 20 years.

Trade policies of the last 50 years have enabled growth, even though there were a lot of barriers particularly for chemicals, Al-Saleh said. He warned that shifting to local, fragmented trade will take many years, but it will also take years to see the disadvantages, such as lower margins and curtailment of investments that could lead to a global recession.

According to Al-Saleh, shifting trade patterns offer new opportunities for GCC players to improve trade volumes with China, and improve their supply chain networks. Currently, over 60% of the region’s exports are shipped to markets in Asia, and this is likely to increase in the short term. In the long-term, changes can be expected in demand patterns. As global trade is a key driver for the petrochemical industry, any changes will therefore impact demand. Al-Saleh urged the industry to remain vigilant and warned of more repercussions on the industry’s financials.

There is an opportunity for the GCC to initiate agreements with major trading partners, such as China, as well as strengthen its relationship with regulators, Al-Saleh added. Although the region has successfully promoted domestic petrochemical consumption, more cooperation in general would be required along key trade routes.

The imposition of tariffs will have a longer-term effect on innovation and the competitiveness of the industry, said René van Sloten. Societal concerns about the environment also adds further barriers to trade, van Sloten added.
“The industry needs to support efforts to strengthen the rule-based system of the World Trade Organization, calling for complete stop of tariffs on chemicals.”

René van Sloten  
Executive Director, Industrial Policy, European Chemical Industry Council

The chemical industry at its core is very dependent on trade; free trade drives innovation and efficiencies. With this, van Sloten urged the industry to support efforts to strengthen the rule-based system of the World Trade Organization, calling for complete stop of tariffs on chemicals. Tariffs do not give protection, they are a cost factor, he said, adding that cooperation will save regulators time and accelerate time to market for chemicals. Moving forward, he said, the industry would move from globalization of all sectors, to continued globalization of information but regionalization of industry. Trade within regions may even increase, he added.

For his part, Walls, observed that trade war will bring stagflation, demand destruction and oversupply; it will also have a significant impact on innovation. To address current trade challenges, the chemical industry needs to encourage greater regulatory cooperation. The chemical industry is in an ideal position to demonstrate the benefits of global trade, Walls said. In fact, it provides many of the answers that protectionism creates. The industry has only been able to excel in innovation thanks to being part of a global and open market, he concluded.

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“Petrochemicals is going to be one of the most heavily impacted sectors from Brexit.”

Paul Harnick  
Global Head of Chemicals and Performance Technologies, KPMG

Digitalization in the chemical industry

Digitalization will unlock significant impact in the chemical and petroleum industries, said experts at the day zero masterclass dedicated to this important topic. In this session, Anders Brun, Partner, McKinsey & Co, highlighted the four key enablers for digital innovation: advanced analytics; robotics and automation; process digitalization; connectivity and sending, all of which will be enabled through the digital organization and IT infrastructure.

Frithjof Netzer, Chief Digital Officer, BASF, and Thorsten Wenzel, VP and Global Head of Chemicals, SAP, provided practical examples of how digitalization is transforming their businesses and highlighted the opportunities they have observed in introducing the new technologies. They also reflected on the challenges posed both internally, within their own organizations, and, most importantly, in working with clients.

The session featured a presentation from McKinsey & Co showcasing the results of a survey conducted with GPCA members earlier in the year; three use cases were identified – in strategy, manufacturing and sales – where digital is making a big difference.
Several imperatives face the GCC chemicals industry in the decade ahead. They include a rapidly-changing energy environment and its effects on feedstock availability, an uncertain consumption growth picture, a shift to circular economy thinking, the need to add shareholder value in a changing environment, and the need for new materials to support new manufacturing processes.

**Energy transition and circular economy**

Alan Gelder, VP, Refining, Chemicals and Oil Markets, Wood Mackenzie, and Gordon Haire, Head of Aromatics, Wood Mackenzie, posed the question: “Energy Transition and Circular Economy: Friend of foe to the Middle East chemicals sector?” Gelder said that the emergence of low-cost, non-subsidized, renewable energy and the electrification of passenger vehicles are driving a transition in the energy market. Coal is particularly vulnerable to replacement by renewable energy sources, but demand for primary energy (oil and gas) continues to rise with the biggest areas of primary energy demand growth located in the Asia-Pacific region. No peak in oil and gas demand is anticipated before 2035.

The pace of adoption of electric vehicles is accelerating due to technological advances in batteries. Gasoline demand will peak by 2030, and 4.5 million barrels/day will be displaced by electric vehicles by 2040. Petrochemical feedstock demand will increase, according to Wood Mackenzie, by over 7 million barrels/day to 2040. However, a substantial part of this increase will be met by natural gas liquids obtained from gas production. As a result of these energy megatrends, global oil demand will be driven by middle distillates and petrochemical feedstock requirements. This will encourage the development of “chemical refineries” in the future.

“The emergence of low-cost, non-subsidized, renewable energy and the electrification of passenger vehicles are driving a transition in the energy market.”

**Alan Gelder**
VP, Refining, Chemicals and Oil Markets, Wood Mackenzie
How to create value in the years ahead

Udo Jung, Senior Partner, Chemical Practice, Boston Consulting Group, and Mirko Rubeis, Partner and MD, also from the Boston Consulting Group, unveiled new research on chemical company performance in a presentation entitled “Patterns of value creation in the global chemical and petrochemical industry: History and future”. The presentation reviewed what drove value creation in the past and what can be expected to drive it in the future.

Profitable growth is a constant in value creation in all industries. To measure it, Jung introduced the concept of Total Shareholder Return (TSR), a measure which includes share price and dividends. Besides growth, TSR also incorporates measures of free cashflow, margin, and multiple. Rolling analysis of results over one, three, five and 10 years revealed a difference between base and specialty chemical companies: profitable growth is important for both, but base chemical company value is related strongly to margin, whereas specialty chemical company value depends more on multiple.

Jung’s analysis from 2004 to 2017 showed that chemical companies have slipped in the rankings of value creators across industries, although performance recently improved. Base chemicals and plastics companies and specialty chemical companies have alternated in value creation. In the current cycle, specialty chemical companies are leading. Focused specialty companies are very effective in driving value, outperforming multi-specialty companies, and dominating the rankings in the last five years.

Over recent years, market-based business models have outperformed asset-based ones. In any industry, BCG found that the top performers in any segment or industry outperform the industry average. Looking specifically at multi-specialty companies, they tend to invest more, but create less value than the focused specialty players and still need to prove their value claim. Large chemical companies need constantly to improve their capabilities across the value chain. This means improving the asset base, product and customer portfolio, innovation and service offerings, and, not least, responding to competition and disruption from new technology.

Key takeaways

- Value creation in the past was mainly driven by profitable growth, as well as margin for basic chemicals, and multiple for specialty companies.
- Specialty companies perform the best in increasing shareholder value, with focused specialty companies leading the way.
- In the future, value will be driven by consolidation and the formation of a global market footprint, digitalization across the value chain and making sustainability and the circular economy central to value creation.
As to the future of value creation, Rubeis stressed maintaining the lessons of the past – portfolio and capability coherence, as well as operational, commercial and innovation excellence, while incorporating future value levers. Rubeis stressed that consolidation was central to Middle Eastern chemical company value creation. The word “consolidation” includes mergers and acquisitions but also collaboration among companies in marketing and shared site services, JVs and partnerships. He also gave the example of India as a target for increasing Middle Eastern companies’ global footprint.

Digitalization has large potential to create value along the “core” chemical value chain from manufacturing, supply chain, commercial activities, and support systems. To be fully successful, chemical companies need to change their methods of working towards a high-performance culture, leverage the power of their data, and integrate systems. Finally, said Rubeis, every chemical company needs to define its role and the value contribution it can make in the circular economy. How the circular economy and sustainability are approached will be at the center of value creation in the future.

Feedstock push hits a demand wall

John Richardson, Senior Consultant, ICIS, and David Hughes, CEO, International eChem, described the outlook for petrochemicals as a feedstock “push” hitting a demand “wall”. While feedstocks are becoming more plentiful, aging demographics, protectionism, and the changes in behavior that will come about with the circular economy, create unprecedented risks for GCC chemical players.

In the years ahead, chemicals capacity growth will be driven by different regional factors. In China, the push to greater self-sufficiency, combined with a return to naphtha cracking will add 25 million tons of ethylene te by 2030. In Southeast Asia, chemicals are seen as a way to boost economic growth within China’s Belt and Road Initiative. The Middle East will push further into chemicals to diversify portfolios and act as a hedge against oil sales. Meanwhile, in North America, the continuing shale boom will result in 6.5 million tons of ethylene te in a wave of expansions between 2020 and 2022.

Hughes predicted a big rise in production from recycled materials. For example, if the chemical industry could reach an HDPE recycling rate of 33.5% (half of the current recycling rate of aluminum, steel, and glass) by 2030, it would result in a flat lining of current HDPE production from virgin resin, with most of the increase in production over the period (around 25 million tons) coming from recycled material. Hughes also added that recycling HDPE is not technologically difficult.

Where recycling does not occur, or where the dominant use of a plastic is for single-use applications, Hughes said that demand will disappear, and other materials may be substituted. He gave the example of LLDPE, where he estimated that 118 million tons of cumulative lost demand could occur by 2030. In short, a sharp rise in recycling rates could adversely impact cracker operating rates and put great pressure on non-integrated crackers. Finally, Hughes pointed out that protectionism and trade wars are here to stay, since the easy growth associated with the baby boomers is coming to an end.

“Feasibility of Plastic Waste has moved to the top of the industry’s agenda, while brand owners have taken a leading role when it comes to the circular economy.”

David Hughes
CEO, International eChem

Key takeaways

» New feedstock supplies will support integrated players.
» Demand patterns are changing as the demographics change.
» The circular economy will massively impact our markets.
» Globalization is already coming to an end.
» Trade wars could create major problems for GCC players.
Richardson looked at the nascent US-China trade war, which has become particularly important as many chemical producers see China as the major consumer of future production. China will continue to consume around 30% of global polyethylene production to 2030. Finally, Richardson pointed to mega-trends in China, including growing wealth in the new urban clusters, an emphasis from the government on autonomous vehicles and ride hailing, and the urgency of improving air quality. Combined with China’s enthusiasm for recycling, it is possible that per-capita consumption growth could disappoint expectations. For example, a reduction in 2030 per capita demand for polyethylene from current expectations of 35 kg to 29 kg would result in a total consumption reduction of 10.6 million tons.

New materials and new processes for the 2020s

Matthew Hartley, Senior Consultant, Individual Project Studies, Tecnon OrbiChem, and Gillian Tweddle, Business Manager, Individual Project Studies, Tecnon OrbiChem, provided an analysis of opportunities in additives manufacturing and composites, where GCC producers could seize an opportunity in its early growth stages.

Tweddle began with an analysis of additives manufacturing, which is also known as 3D printing. Demand for 3D printed items comes principally from prototyping for industries such as aerospace and automotive.

Engineering polymer producers can participate in this relatively new industry to gain experience, and to participate in expected future larger markets. While overall engineering plastics demand for additive manufacturing is currently small, there are reasons to expect it to grow fast. The product cycle is at the “early adopters” part of the development curve, and 3D printing is beginning to move from the enthusiast to commercial companies.

Tweddle stressed that moving into additive manufacturing requires cooperation between plastics makers, filament/powder/liquid producers, 3D printer makers, and end-customers, because printing techniques and printing differ, and a high level of customization is required for each application.

Hartley presented the topic of composites manufacturing and went on to describe some recent applications of composites, including 3D printing, unidirectional tapes made with continuous fiber reinforced thermoplastics (CFRTs), lightweight automobile and aerospace parts, and architectural panels.

Key takeaways

» New markets – additive manufacturing and composites – in their early stage of development could offer big opportunities for Middle Eastern plastics producers

» Engineering polymer producers can participate in this relatively new industry to gain experience

» To succeed in these burgeoning markets producers will need to foster much closer relationships with end-users to fully define their needs
Over 140 science and engineering students from around the GCC region attended the 13th Annual GPCA Forum as part of GPCA’s Leaders of Tomorrow (LoT) program. Powered by SABIC, this was the program’s 9th edition. The students attended a specially designed seminar with presentations from senior industry leaders and an interactive session hosted by IHS Markit.

The seminar began with welcome remarks and introduction to LoT by Dr. Abdulwahab Al-Sadoun, Secretary General, GPCA, and continued with a presentation by Sami Al Osaimi, VP Corporate Affairs, SABIC, entitled “Experiences of a ‘millennial’ in the petrochemical industry.”

The first session led by IHS Markit and entitled “Enabling modern living and the advancement of humankind” provided important insight into the role of the chemical industry in modern day living. Students learned about the role of hydrocarbons as the key building blocks in everyday products; and how job creation and economic development are enabled by chemistry. They also learned about strategic issues and global trends affecting the chemical industry such as globalization, economic megatrends, safety, sustainability, climate and its impact in the industry, digitalization and the transformation to Industry 4.0.
At the end of the program, students participated in an interactive group exercise aimed at teaching participants about strategic decision making in the chemical industry. The winner was selected based on the quality of their presentation and findings and awarded a prize for their work.

On the afternoon of the same day, a specially organized visit to Borouge Innovation Centre provided students with an opportunity to learn about the practical side of the industry and the role of innovation in driving value creation and growth.

Leaders of Tomorrow is GPCA’s flagship program dedicated to building local human capital in the region by promoting STEM and bridging the gap between academia and industry. It is considered as the first official collective step where industry stakeholders collaborate in shaping skills and preparing the future industry leaders for a career in the chemicals sector.

LoT provides university students engaged in science, technology, engineering and mathematics (STEM) an opportunity to learn about the industry and encourage them to start a career in chemistry and other allied industries. To date, the program has hosted over 550 participants from 50 universities across the six GCC states sponsored by 23 GPCA member companies.

“Leaders of Tomorrow is a good opportunity for students to have a deeper look in the industry and gain crucial insights.”

Nour Ibrahim Saad, Student, AUD

www.youtube.com/watch?v=WfNxBYsEpCc
The Annual GPCA Forum takes place at Madinat Jumeirah, Dubai considered as the largest hotel event space in the UAE. With over 2,000 delegates attending the event, the forum offers an ideal platform to network with senior business leaders, while enjoying a traditional Arabian setting situated on the seacoast under the open sky. A special welcome dinner sponsored by ExxonMobil and a gala dinner sponsored by Borouge were some of the highlights of the event, allowing delegates to relax, network and dine in a dedicated area overlooking the spectacular Burj Al Arab.

The forum’s exhibition area is a must-attend, attracting tens of exhibiting companies from around the region and globally. It presents an array of opportunities to display your latest technologies and innovations, meet with existing and new customers and showcase your brand and capabilities in a vibrant business environment.

“With 2,000 people in one place, the Annual GPCA Forum provides a huge opportunity for networking with our peers, colleagues and competitors, but also for meeting our customers.”

Ahmed Al-Jahdhami,
CEO, Orpic
During the 13th Annual GPCA Forum, GPCA released its annual ‘GCC Petrochemical and Chemical Industry: Facts and Figures 2017’ report. In line with our efforts to minimize our environmental footprint, the report was distributed in a digital format only. The Annual Forum edition of the GPCA Insight newsletter was also published during the forum, covering the latest news, interviews and topics from the global and regional chemical industry.

The 13th Annual GPCA Forum marked the official release of “Journey Towards Excellence”, the first of its kind book published in Arabic language to document the evolution of the petrochemical industry in the Arabian Gulf since inception. The book was authored by Dr. Abdulwahab Al-Sadoun, Secretary General, GPCA, and delegates were given the opportunity to collect a signed copy at a dedicated stand at the forum.

As part of the forum’s giveaways this year, GPCA produced a specially designed calendar, with each month highlighting the past 12 editions of the Annual GPCA Forum and its evolution from a modest industry gathering in 2006 to a must-attend event of global significance. The 2019 GPCA calendar of events was also highlighted in a customized bookmark.
In 2018, the Annual GPCA Forum saw the launch of GPCA’s new Sustainability Initiative, supported by ExxonMobil and aimed at demonstrating the chemical industry’s commitment towards achieving the Global Sustainable Development Goals (SDG) and enabling a transition towards a circular economy. As part of the initiative, a dedicated Sustainability Zone offered delegates an opportunity to learn about the latest sustainability efforts, programs and achievements of chemical producers from the Arabian Gulf region, while presenting their own experience in creating sustainable chemistry.

GPCA member companies showcased the technologies, techniques and initiatives that they are implementing to support a more sustainable future. Senior sustainability experts from Sadara Chemical Company shared their experience organizing a workshop entitled ‘Sustainability: The Way to Excellence’. They further highlighted the company’s efforts to develop chemical products that enable sustainability in our everyday life and protect the planet.

The role of plastics in the circular economy was highlighted by industry leaders at SABIC, who shared more insight into their Home of Innovation program and the importance of the UN Sustainable Development Goals (SDG) for chemical producers in the region. TASNEE presented about their Sustainability Management System as part of which they developed specific sustainability KPIs, addressing greenhouse gas emissions, energy and water consumption, and material loss.

Executives from Sahara Petrochemical Company showcased their achievements with regards to Responsible Care, their latest Corporate Social Responsibility programs, including GPCA Waste Free Environment, Let’s Walk campaign, Day with My Father, and more. Other participants in the Sustainability Zone included Borouge, Sipchem and GPIC who also highlighted their environmental achievements and the role of sustainability in their day to day operations.

Besides meet and greet sessions, presentations and interesting discussions, the zone featured highlights of the GPCA Waste Free Environment campaign and an educational poster outlining the opportunities within the circular economy for the chemical industry in the GCC.

In line with this year’s forum theme ‘Executing Transformation and Investing in Growth’, GPCA, as the voice of the chemical industry in the Arabian Gulf, placed greater emphasis on the need for increased plastics recycling in order re-harness the utility of this valuable commodity. For our part, we committed to ALL event waste going to recycling facilities; Poken touchpoints being used to reduce the amount of paper required for event information; and the distribution of recycled water bottles to delegates to dramatically cut plastic waste.
13th Annual GPCA Forum opening ceremony

The opening of the event was very different to any other year before, as it included a live Q&A session by a presenter on stage with a fictional character – a professor from the year 2070, who was asked to provide delegates with “a glimpse into the future.” The professor discussed how research and innovation today will change the way we live, and how future innovations will be enabled by the chemical industry. The presenter delivered a powerful conclusion by telling the audience that the makers of the future are the young leaders of today.

13th Annual GPCA Forum highlights video

With every edition growing in significance and popularity, the forum attracts over 2,000 delegates each year, and offers a unique combination of networking, knowledge sharing and entertainment in one of the most attractive destinations globally.

GPCA TV at the 13th Annual GPCA Forum

Some of the interviews featured on GPCA TV this year included an exclusive Q&A with GPCA Chairman and SABIC CEO, Yousef Al-Benyam; Murat Sönmez from the World Economic Forum; and Dr. Aabed Al Saadoun, Deputy Minister, Ministry of Energy, Industry and Mineral Resources, Saudi Arabia, among other global and regional industry leaders.
THANK YOU TO OUR SPONSORS AND EXHIBITORS
THE ANNUAL GPCA FORUM IN THE MEDIA

The Annual GPCA Forum enjoyed an extensive media coverage in 2018, achieving 375 hits and an overall reach of over 37.3 million viewers across global and regional online, print and TV platforms.

As with every year, the forum attracted significant media attention over the three days of the event, with coverage being particularly strong in Saudi Arabia, Kuwait, UAE and Bahrain.
A special social media wall, which was part of the forum for the second year in a row, generated particularly high engagement with delegates by providing a live social media feed featuring the official forum hashtag.

The forum attracted high engagement across all main social media platforms.

### TWITTER

- Followers: 3,346
- Followers gained: 127
- Likes: 198
- Clicks: 74
- Retweets: 91
- Share of volume for #GPCAForum (including retweets): 940
- Mentions @GulfPetChem: 201

### LINKEDIN

- Total followers: 16,654
- Followers gained: 219
- Likes: 118
- Clicks: 740
- Shares: 10

The GPCA conferences app saw over 827 logged-in delegates during the event, 52,300 number of clicks and over 42,100 minutes spent on the app in total. The number of visitors on the app throughout the month of November exceeded 1,340.
WHY ATTEND?

Delegates are now eagerly booking their spots for the 14th Annual GPCA Forum. Below are some of the benefits you will receive by attending this leading petrochemical conference.

As the premier gathering of the global chemical industry in the Middle East, the Annual GPCA Forum will offer you unique insights and extensive networking opportunities.

Feedback from 2018 was overwhelmingly positive, declaring the event the “premier petrochemical event globally”.

The conference provides the ideal opportunity to try a fresh approach to new business and strategy development.

Enjoy an informative and business critical program focusing on the current market conditions influencing petrochemicals, and highlighting the opportunities that can be seized.

Ideal location. Dubai is considered as one of the leading cities in the world. It is a dazzling, cosmopolitan destination complete with gleaming skyscrapers, luxury hotels and amazing weather. Do we need to say more?

You will meet and network with over 2,000 expected attendees.

You will hear invaluable insights from major industry players, from across the region and the world.

Benefit from the delegate networking tool, enabling you to contact other attendees and arrange meetings in advance of the conference.

Excellent networking opportunities including a welcome dinner, gala dinner, networking lunches and breaks, which offer the perfect opportunity to make those essential connections for the year ahead and collect as many contacts as possible via “Poken”, the electronic business card.

The Annual GPCA Forum is the place where ideas get the boost to be realized in a common language and where industry players can synergize to accomplish this newly conceived paradigm across the entire value chain, getting the world aware.”

Daniele Ferrari
CEO, Versalis (Eni) and President CEFIC
The Gulf Petrochemicals and Chemicals Association (GPCA) represents the downstream hydrocarbon industry in the Arabian Gulf. Established in 2006, the association voices the common interests of more than 250 member companies from the chemical and allied industries, accounting for over 95% of chemical output in the Gulf region. The industry makes up the second largest manufacturing sector in the region, producing over USD 108 billion worth of products a year.

The association supports the region's petrochemical and chemical industry through advocacy, networking and thought leadership initiatives that help member companies to connect, to share and advance knowledge, to contribute to international dialogue, and to become prime influencers in shaping the future of the global petrochemicals industry.

Committed to providing a regional platform for stakeholders from across the industry, the GPCA manages six working committees - Plastics, Supply Chain, Fertilizers, International Trade, Research and Innovation, and Responsible Care - and organizes five world-class events each year. The association also publishes an annual report, regular newsletters and reports.

For more information, please visit www.gpca.org.ae