

Post-event report

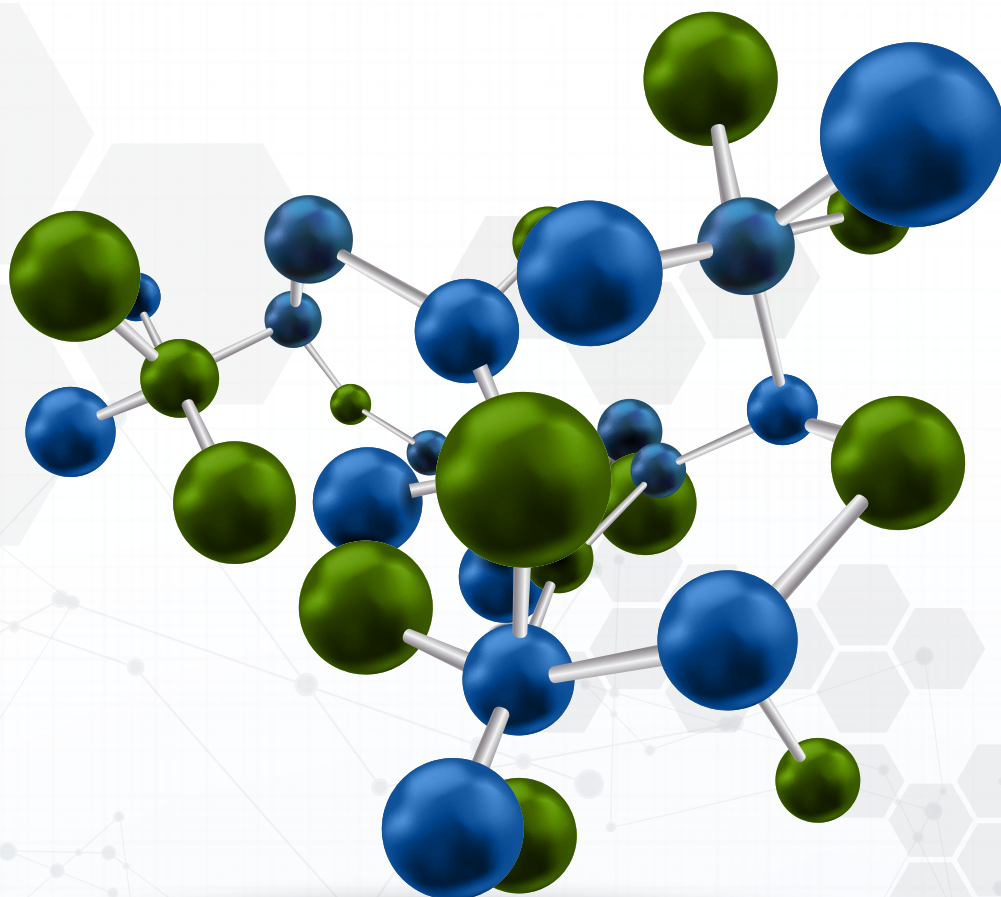
CAPITALIZING ON INNOVATION:

A G R O W T H I M P E R A T I V E

5th Edition

11-13 MARCH 2018

THE OBEROI HOTEL, BUSINESS BAY, DUBAI, UAE





CAPITALIZING ON INNOVATION: A GROWTH IMPERATIVE

5th Edition 11-13 March 2018

The Oberoi Hotel, Business Bay, Dubai, UAE



Schumpete

“Technological change is already in use, the opening of new sources of supply, Taylor’s handling of material, the reorganization of organizations such as du Pont’s ‘**doing things differently**’ – all these are instances of the term **Innovation**. It should be clear that this term is not synonymous with the term many mean, it has a different meaning. Moreover, it carries mis-

Business Cycles (

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About GPCA R&I Summit

The GPCA Research and Innovation Summit provides the ideal platform to discuss ways and means for creating a culture of innovation within the regional chemical industry. The summit engages stakeholders in the debate to develop innovation capabilities within the region, and has widely been praised for playing a key role in building an innovation culture in the chemical industry in the Arabian Gulf. The first edition of the summit was held in 2013.

Held under the theme: 'Capitalizing on innovation: A growth imperative', the 5th edition of the GPCA R&I Summit addressed innovation from both process and environmental angles – directing the ideation towards business impact and maintaining a vibrant and sustainable lifecycle throughout the journey from idea to commercial production to market. Broad fields of chemicals and petrochemicals were covered during the event, with sessions emphasizing: i) hurdles to cycle completion and achieving business impact ii) the impact of macroeconomic boundaries on innovation strategy and iii) case studies from the Arabian Gulf highlighting successful innovation.

Executive summary

Innovation through value creation is at the forefront of chemical companies' strategies as the economic environment remains unfavorable, with markets continuously challenged by new and emerging supply. Maintaining, not just creating a competitive advantage, will be paramount to the survival and success of Arabian Gulf chemical producers.

For years, innovation has been considered as a key driver of growth for both businesses and the economy. But the region has now arrived at a critical juncture and to accelerate the innovation process it must foster an innovation culture and establish strategic partnerships; tap into open innovation and increase its global presence. Corporate venturing, investing in start-ups and fostering a collaborative ecosystem can enable a strategic competitive advantage and technology development

within the region, said speakers during the 5th GPCA Research and Innovation Summit.

Most speakers highlighted the importance of research and collaboration along the value chain as absolutely crucial to harnessing innovation. They also emphasized on the role of global megatrends such as climate change, sustainability and renewables as creating new opportunities for the chemical industry. Differentiation is and will continue to be a key enabler to win in an increasingly competitive market, said experts. Another avenue to realize growth is developing innovative solutions capable of addressing the challenges of high growth markets such as packaging, automotive, building and construction, retail, and consumer goods.



"This was another successful edition of the GPCA Research and Innovation Summit bringing vital knowledge to the region, and encouraging the development of innovation."

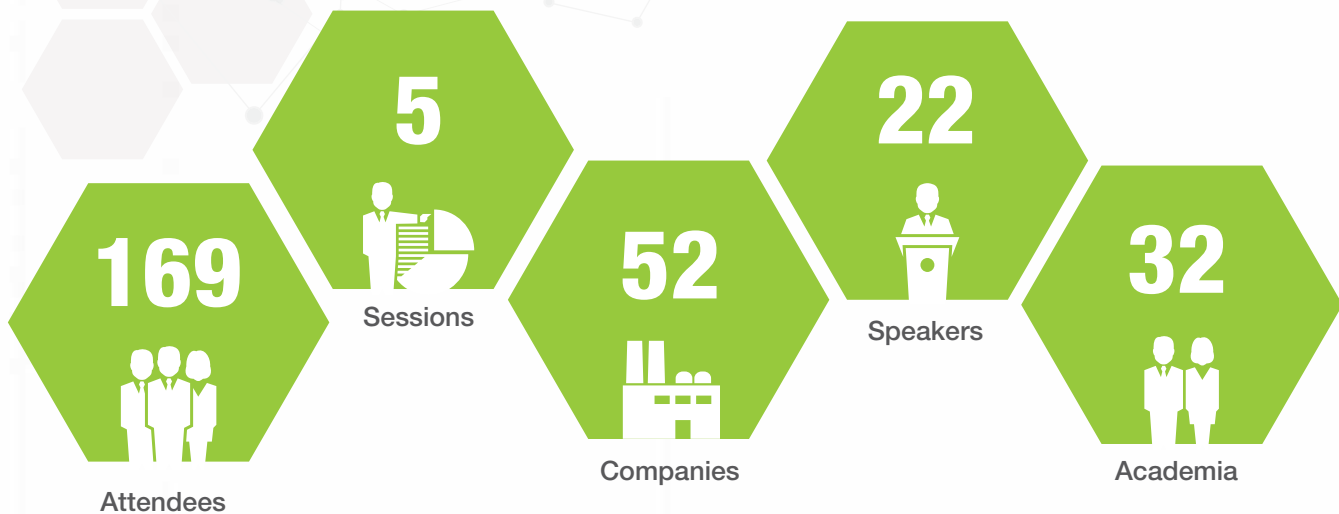
H.E. Engr. Saleh Bahamdan,
CEO, Sahara Petrochemicals



The summit in numbers

The 2018 GPCA R&I Summit was attended by 169 delegates from 52 companies, of whom 32 were academia and 22 were speakers. GCC industry leaders and international experts

presented on the important topic of innovation and how to capitalize on opportunities to create future growth.



“The exchange of experience and knowledge among corporates from the East and West, and this region is very important for us. What is also important is to bring the young generation, or the “leaders of tomorrow” which will help us start developing an innovation culture in the region.”

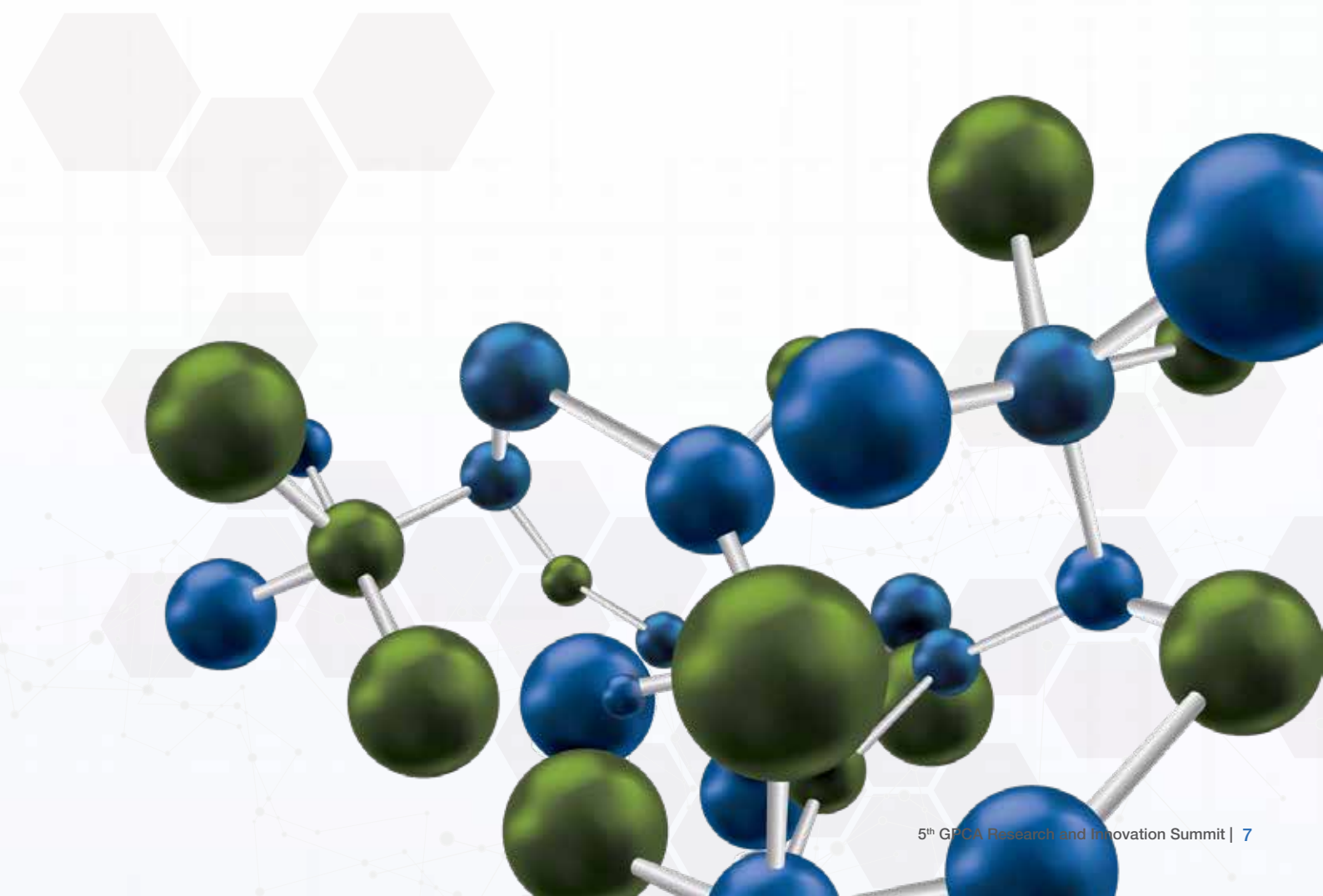
Ahmed Al-Ohali, CEO, Sipchem





“I commend GPCA for this edition of the Research and Innovation Summit. It is absolutely vital for organizations and technology licensors as well as academia to have this platform to converse, share ideas and grow together.”

Dr. Elie Fayad, R&D Manager, Honeywell UOP



Speakers

At this year's edition of R&I Summit, a total of 22 speakers from industry and academia highlighted uncertainties in the innovation process, opportunities for future capabilities, the impact of innovation in the Arabian Gulf and advances in polymer process technologies. Dr. Moayyed I. Al-Qurtas, Chairman of Research and Innovation Committee, GPCA, presented the opening remarks.

For the first time Dr. David Hounshell, Roderick Professor, Emeritus, Technology and Social Change, Carnegie Mellon University, delivered the keynote address on day one, with Prof. Mohamed Eddaoudi, Director, Advanced Membranes and Porous Materials Research Center, KAUST, opening the second and last day of the summit.



DR. MOAYYED I. AL-QURTAS

Chairman of Research and Innovation Committee, GPCA



DR. DAVID HOUNSHELL

Roderick Professor, Emeritus, Technology and Social Change, Carnegie Mellon University



PROFESSOR MOHAMED EDDAOUDI

Director, Advanced Membranes and Porous Materials Research Center, KAUST



DR. FAHAD AL-SHEREHY

Vice President, Technology and Innovation SABIC



CHARLES VASLET

Partner, Emerald Technology Ventures



ROLAND KÄPPNER

EVP, Head of Energy Storage and Hydrogen, thyssenkrupp Uhde Chlorine Engineers GmbH



DR. VOLKER TRAUTZ

Independent adviser and board member, Evonik Industries



DR. ABDULLAH AL MAHRUKI

CEO, Industrial Innovation Centre, Oman



DR. WEI XU

Research Science Consultant and Leader Chemicals R&D Laboratory, Saudi Aramco



DR. THORSTEN LOEHL

VP Innovation, Borouge



PHILIPPE DUMAZET

Director, Automotive Technology, SABIC



DR. ELIE FAYAD

Manager, Research & Development, Honeywell UOP



“We know from the history of innovation that networking is very critical for people to meet and exchange ideas, so a gathering such as this is really critical for companies and members of GPCA, but also society at large.”

Dr. David Hounshell, Roderick Professor, Emeritus,
Technology and Social Change, Carnegie Mellon University



**DR. SULAIMAN
AL-KHATTAF**
Director of the Center for
Refining & Petrochemicals,
KFUPM



BOB MAUGHON
VP, Research and
Development, The Dow
Chemical Company



DR. ALFRED STERN
EVP, Polyolefins and
Innovation & Technology,
Borealis



**DR. MARK L.
HLAVINKA**
Licensing Manager, Chevron
Phillips



DR. NIALL MARSHALL
Technical Manager,
Everspring Middle East WLL



HERRIN HOOD
Global Marketing Director,
Plastic Additives Business,
Milliken & Company



**DR. HAYDER
ZAHALKA**
Research Fellow and Global
Senior Technology Manager,
Addviant Global Technology



MEHTAB GILANI
Associate Partner, IBM GBS
(Chemical and Petroleum)



DR. FLOR CASTILLO
Research Fellow, Corporate
Research & Development,
SABIC



Capitalizing on innovation: A growth imperative



In his opening remarks on the inaugural day of the summit, Dr. Moayyed Al-Qurtas, Chairman of GPCRA's Research and Innovation Committee, provided an overview of the evolution of the research and innovation landscape in the GCC over the past five years. As the first high tech industry, which pioneered industrial research, the chemical industry has undergone significant changes since it was first founded. The challenges it faced were a key driver for innovation which opened up new opportunities to expand into new fields. Today technology and R&D management remain critical for the industry's profitability, and so does technology transfer as well as the establishment of advanced industries. Dr. Al-Qurtas concluded that uncertainty remains a key challenge facing chemical producers in the region, calling for an adequate response from key decision makers to mitigate risks and exploit the opportunities ahead.

Dr. David Hounshell, Roderick Professor, Emeritus, Technology and Social Change, Carnegie Mellon University, and co-author of 'Science and Corporate Strategy. DuPont R&D, 1902-1980', delivered the keynote address on the opening day of the 5th GPCRA Research and Innovation Summit. He narrated the story of DuPont and some of the lessons learnt over its 100-year history ranging from setting strategic innovation targets to responding to ecosystem and political change. Dr. Hounshell also touched upon the theory of economic development, linkage to Research & Development (R&D) and the concept of serendipity. He further shed light on challenges in R&D

management in a modern diversified corporation, highlighting the history of industrial R&D in the US, as well as the state of industrial research during the 20th century and currently. Dr. Hounshell narrated the story of DuPont, which has a well-known history of innovation, offering a rare glimpse into the R&D challenges the chemical corporation faced since it was founded.

Uncertainty plays a crucial role in driving chemical innovation. From technology uncertainty to market uncertainty, regulatory changes and social and political unrest, companies are surrounded by challenges that create an even greater need to develop their innovation capabilities in order to remain competitive. Dr. Volker Trautz, Independent Adviser and Board Member, Evonik Industries, emphasized on the importance to adapt to the region's unique challenges. Modern R&D is much more market-oriented and aligned with customer requirements, while it used to represent a "technology push" in the past. Therefore, a change of mindset is required to transition more towards "problem solving" innovation. According to Trautz, Arabian Gulf producers must move from commodity products to specialties, focusing not just on product innovations, but on providing solutions. Chemistry innovations are typically incremental and less disruptive. But to be successful, innovation management must adapt, adopting a stage-gated process and recording the milestones achieved.

Dr. Abdullah Al Mahraki, CEO, Industrial Innovation Centre, Oman, explained an important fact – that successful policies must align with benefits at sector/enterprise level and national level. He also highlighted the impact of applying policies to encourage engagement of the industry in research and innovation efforts and bridge the gap between innovators and institutions by adopting innovation enhancement agenda. Within the industrial sector, innovation can generate significant benefits ranging from the development of new and improved projects, manufacturing efficiency, improved services, greater and more competitive market share, increased profitability, job creation, workforce capacity building and potential for IP and patent development. At a national level, investing in innovation can result in economic growth, higher standard of living, international competitiveness and knowledge-driven impact.

However, innovation is a highly complex process that relies upon several factors such as building the right mindset, forming strategic partnerships, technology commercialization, government policies, capability building and others. Within the European Union (EU), the industrial sector accounts for 80% of the economy; therefore, policies affecting industry have a direct impact on the growth and prosperity of the world's largest trading block. Within the enterprise sector, one innovation is developed every five years, which is estimated to increase revenue by up to 25%.

In closing, Dr. Mahraki shared a piloting experience and a futuristic plan of IIC's activities in industrial innovation in Oman aimed at improving enterprise acceleration and

competitiveness, while enhancing the diversification of the national economy.

Opportunities for future capabilities

Fahad Al Sherehy, VP, Technology and Innovation, SABIC, began his presentation by highlighting the changing business environment, and the new challenges and opportunities within the chemical industry globally. In today's highly complex business reality, disruptive trends in technology, digitization, energy and sustainability are creating shifts in how we consume products in our daily lives. This in turn is having lasting implications on the way the chemical industry must innovate to meet society's evolving needs.

The innovation cycle is rarely straightforward, starting from a simple idea and moving to define a clear target. The execution and realization are the two final and most challenging stages that many companies struggle to arrive at. Within the innovation cycle, several factors must be present to ensure an impactful result – strategy; organization, capability and tools; but also, the right culture. To accelerate the innovation process, chemical companies must invest in developing these key capabilities – global presence, technology venturing, partnership, Open Innovation, advanced tools, IP, and technical know-how. Only then can companies bridge the innovation gap and realize the value that they are aiming to achieve.





Industrial revolution 4.0 and its impact on R&I

During the event's workshop on Industry 4.0, Mehtab Gilani, Associate Partner, IBM GBS (Chemical and Petroleum), discussed 'Growing trends of technology adoption within the chemical industry'. In his presentation he said that digitization requires a governance structure such as 'Digital Advisory Board'. Unstructured data in the chemical industry remains a challenge but also an opportunity. Organizations that plan to adopt digitization must focus on the following key steps: 1) Envision possibilities 2) Run small pilots 3) Deepen capabilities 4) Orchestrate the whole ecosystem.

Dr. Flor Castillo, Research Fellow, Corporate Research and Development, SABIC, presented a case study from the region where technology adoption helped an organization enhance the efficiency of their research. Big data projects have demonstrated clear value creation. Nevertheless, safe transactions between physical and digital assets remain a challenge. The oil and gas sector has a long way to go in data utilization with only 6% of available data being utilized vs. 48% in healthcare. To realize the full potential of digitization, cross-functional workforce is critical to both digitization and value creation projects.

Charles Vaslet, Partner, Emerald Technology Ventures, shared a number of investee stories which demonstrated successful incubation strategy, company building and portfolio management. Sharing specifics on the experience of going through the investee evolution process provided numerous lessons and takeaways for the audience from corporate, investor and investee perspectives. Corporate Venture Capital (CVC) is based on investment of corporate funds directly in external startup companies. To be successful, every CVC investment strategy must align with corporate objectives and collaboration.

There are different types of investments strategies depending on your objectives and business needs. The so called "driving" CVC investment strategy is focused on growth and advancing the strategy of the current business. An "emergent" CVC strategy aims to achieve operational value, and allows for the exploration of potential new businesses. The other two types of CVC are "enabling" or complementing strategy of current business; and the final type of CVC strategy is "passive" which provides financial returns only. CVC activities and processes are split into two main parts – strategic (plan, implement, execute, control) and operational (marketing and innovation, investment and collaboration).

Roland Käppner, EVP, Head of Energy Storage and Hydrogen, thyssenkrupp Uhde Chlorine Engineers, showed an example of how strategic targets and international movement towards strict regulations are driving innovation in green hydrogen. Responding to challenges such as strict regulations and macroeconomic factors was shown to be a driver for further innovation and packaging.

The real need of today is to "predict tomorrow" which is why the industry is investing heavily in developing sustainable solutions to meet future demands, improve our daily lives and give its customers a competitive advantage. Innovations in energy storage, zero carbon hydrogen and renewable chemicals can play a crucial role in supporting the industry's efforts to meet some of the key global challenges such as urbanization, climate change, and growing population. Opportunities exist to produce base chemicals from renewable feedstock, prevent CO2 emissions and reuse them instead for plant operations.

At a global scale, joint efforts have been put in place to push the renewable hydrocarbon future. The World Economic Forum in Davos launched a Hydrocarbon Council in 2017, pledging that by 2050, 18% of total energy demand will be met by hydrogen, with 6Gt of CO2 abated annually. This is hoped to generate over 30 million jobs and USD 2.5 trillion in annual sales from hydrogen and equipment.

Innovation impact on the Arabian Gulf chemical industry

Dr. Thorsten Loehl, VP Innovation, Borouge, showcased the company's latest technology Anteol™, highlighting the role of innovation in its development and innovative design. Dr. Loehl made a strong case of how global market understanding and



analyzing specific customer needs have helped drive Borouge's research direction. He also highlighted the role of packaging in driving plastic demand and some of the key drivers for innovative plastic solutions.

Global plastic production totaled 322 million tons in 2015, growing by 3.8% in the following year to 335 million tons. Asian countries, led by China (29%) accounted for half of the increase, followed by Europe (19%), Canada, Mexico, US (18%), Middle East and Africa (7%), Latin America (4%) and the CIS region (2%). Per segment, packaging accounts for 39.9% of plastic demand, which is the highest globally, with the remaining demand claimed by building and construction (19.7%), automotive (10%), electric and electronics (6.2%) and others. Some of the main drivers for global packaging producers include demand for light weight products, achieving energy savings, higher productivity, lower carbon footprint, enhanced functionality, smart design and recyclability. In order to remain successful globally, chemical companies must continuously innovate their offerings to ensure the challenges of the 21st century are closely met.



An R&D answer to industrial challenges

Dr. Wei Xu, Research Science Consultant and Leader, Chemicals R&D Laboratory, KAUST, highlighted the impact achieved through an Antifouling Additive Technology. His research demonstrated a combination of systematic approach and state of the art technology, both of which have helped achieve more impactful results. The research also contributed to an existing industrial challenge presented by ethylene oligomerizations, often associated with heavy polymeric fouling, which in turn leads to frequent plant shutdowns. The researched anti-fouling was able to achieve significantly shorter downtime in the reactor.



Dr. Philippe Dumazet, Director, Automotive Technology, SABIC, highlighted the market trend for plastic and hybrid solutions for vehicle light weighting and improved crashworthiness. The latest drive in the automotive industry for energy management solutions, battery protection and highly automated vehicles are creating significant opportunities for chemical producers. There is a growing trend to move towards multi-materials solutions, with plastic playing a key role. Demand for plastic parts is growing significantly due to their reliability, cost-efficiency, and light weight. Furthermore, plastics offer the best balance of performance, weight and cost. One of the latest innovative designs in the market are metal-plastic hybrids which enable considerable weight reductions of up to 60% vs. steel, in addition to better stiffness/ impact balance and cost savings. Another emerging trend is the composite-plastic hybrids (tailgate) which allow even greater weight reduction of 20-30% compared to metal-plastic hybrids. To capitalize on these new opportunities, chemical producers must adapt multi-material solutions to meet the automotive industry's challenges. Collaboration with academia/ OEMs, and developing predictive engineering capabilities, will also be needed to achieve advances in the development of such products.

Dr. Elie Fayad, R&D Manager, Honeywell UOP, and Dr. Sulaiman Al-Khattaf, Director, Center for Refining & Petrochemicals, King Fahd University of Petroleum & Minerals, presented a case study on successful academia-industry collaboration. Honeywell UOP formed a partnership with KFUPM as part of its commitment to be an industrial and technology partner to Saudi Arabia in support of Saudi Vision 2030. The partnership targeted various objectives, such as (i) Establishing an R&D lab in KFUPM for UOP-KFUPM joint development projects, (ii) Establishing an advanced R&D center in Dhahran Techno Valley with state of the art tools and equipment to support Honeywell's business in the region and become its regional hub for industrial and academic collaborations and engagements and (iii) Developing local skills and expertise. The key advantage offered by such highly commended collaboration was the distribution of activities according to the established skill set on each side of the partnership.



Technology development in the GCC

On the last day of the summit, keynote speaker Professor Mohamed Eddaoudi, Director, Advanced Membranes and Porous Materials Research Center, provided an overview of technology development in the Arabian Gulf alongside the challenges and opportunities to grow the region's

innovation capabilities further. Professor Eddaoudi shared his unique experience developing core catalysis technology at KAUST. At a core science level, the technology was highly successful in meeting the project's industrial needs. However, having the right skills and functions proved to be challenging which is important to close the innovation cycle and move to a full chemical process technology ready for commercialization.

Advances in polymer process technology

In his presentation titled 'Innovation model and key enablers in packaging and specialty plastics', Bob Maughon, VP, Research and Development, The Dow Chemical Company, described the various challenges facing the plastic industry and the role of innovation in making the industry more sustainable. Mr. Maughon highlighted the non-recyclability of some plastics as an obstacle to sustainability. Success will require focus on these three pillars – adequate infrastructure, technical capabilities and consumer behavior, he said. Furthermore, chemical companies will need to focus on enhancing product performance that meets value chain needs with sustainable solutions. They must also lower production cost and energy demands, and increased plant capacity and capability.

Food waste is a major global challenge which is estimated to cost USD 750 billion annually. According to research, up to 50% of food waste can be reduced thanks to better packaging. Dow Chemical Company adopted the approach of delivering on the positive value of flexible plastic packaging. This approach is aimed at redefining the future of packaging in five different ways. First, by developing solutions to reduce food waste 2) by achieving reduction in energy consumption 3) by designing

tools for sustainable packaging 4) by fostering collaboration that redefines the future of packaging and 5) by developing advancements in end of life options. Innovation in this case went beyond research to cover other areas of change such as increasing consumer education and collection; improving waste management infrastructure; enhancing recyclability; and developing end-use markets (e.g. mechanical recycling, chemical recycling and energy recovery).



Spearheading innovation in the polyolefin industry

Dr. Alfred Stern, EVP, Polyolefins and Innovation & Technology, Borealis, presented Borealis's approach to addressing global challenges by placing 'Value Creation through Innovation' at

the core of its polyolefin strategy. He highlighted some of the technology developed for the solar energy sector, like Quentys™, and the importance of research and cooperation through the value chain. Innovation in the polyolefin industry can play a crucial part in ensuring that global energy challenges are met through innovative plastic solutions, Dr. Stern concluded.



Dr. Mark L. Hlavinka, Licensing Manager, Chevron Phillips, outlined the long history of research and innovation at Chevron Phillips. He also highlighted the company's efforts to develop an advanced MarTECH® process with a highly active proprietary metallocene catalysts and activator, competitive cost structure to conventional catalysts, a unique film with high clarity and toughness in single loops and very low soluble. Dr. Hlavinka unveiled the next chapter of innovation at Chevron Phillips, which is the development of metallocene bimodal resins. A dual reactor system has already been demonstrated, while the work on a dual catalyst system is still underway.

Polymer downstream innovation

Dr. Niall Marshall, Technical Manager, Everspring Middle East, highlighted the different types to innovation as "strategic"; "process-driven" and "market-driven". Strategic innovation can be based on M&A, divestment or backward/forward integration. Process innovation, meanwhile, is aimed at production or business process improvement; and market innovation is typically one that generates solution to a specific problem. Some of the market innovation opportunities include emerging markets, new market needs and new regulatory environment. Innovation in the polymer industry is an important enabler to ensure that processing, service conditions and product lifetime continue to increase, said Marshall.

Herrin Hood, Global Marketing Director, Plastic Additives Business, Milliken & Company, began his presentation by highlighting that global polyolefin capacity is rapidly growing and shifting. According to some predictions, PP capacity in Asia over the next five years will exceed the current production base of Asia and Western Europe. What is more, in five years China is expected to produce more PE than North America and Western Europe combined. With this new capacity, existing plants must consider market structure, capital cost, feedstocks and utilizations. Companies must define their real cost advantage and the ability to take advantage of market imperfections. Each firm is different, but in all cases differentiation is the surest way to win in the market, Hood said. He also shared Milliken Product/Technology Roadmap showing how products and affiliated technologies have evolved

over the years. Examples of recent product innovations were also presented, such as Millad NX 8000, which allows 15% energy savings and 10% cycle time improvements versus traditional clarifiers. Looking ahead, Mr. Hood highlighted the potential for inter-material replacement technology, and other product opportunities like DeltaMax™ designed for practical applications.



Value creation and product differentiation

Dr. Hayder Zahalka, Research Fellow, Addviant Global Technology, shared the fruition of innovation efforts in polyolefin stabilization through a kinetic study showing fast and slow active components (well-balanced), a new liquid phosphite completely nonylphenol free. This new compound earned wide global registrations and food contact approvals. This is alongside several technology and commercial benefits, e.g. higher in-polymer solubility compared to solid options (lower gel formation and lower plate-out and blooming).



GPCA Leaders of Tomorrow



The GPCA R&I Summit hosted the six edition of GPCA's Leaders of Tomorrow program aimed at promoting STEM education and bridging the gap between industry and academia. A dedicated student seminar held on day two opened with a presentation by Dr. Abdulwahab Al Sadoun, Secretary General, GPCA, who highlighted the significance of the chemical industry in modern day life, and the numerous career opportunities within the burgeoning petrochemical sector. The Arabian Gulf region is home to 16 world-class innovation centers located throughout the region, from Saudi Arabia and Kuwait, to UAE, Qatar and Oman. Regional research centers date back to the late 1960s with no focus on industrial research. It was only in the late 1990s that industrial research centers were built in Saudi Arabia and elsewhere by leading chemical companies such as SABIC, Tasnee, Bourouge, Sipchem, and Saudi Aramco. Research universities such as Masdar Institute of Science and Technology in Abu Dhabi and King Abdullah University of Science and Technology (KAUST)

in Saudi Arabia were founded only recently in 2007 and 2009 respectively. At present, the GCC chemical industry continues to invest in developing its Research & Innovation (R&I) capabilities with a focus on process engineering (optimizing processes and supply chain) and products applications (e.g. creating new blends/formulations).

Dr. Sadoun was followed on stage by Fahd Al Sherehy, VP Innovation and Technology, SABIC, who shared his experience building a career in the GCC chemical industry, and highlighted SABIC's efforts to create value through innovation. With its large global base, SABIC employs 2,000+ researchers in more than 20 research centers and over 60 projects worldwide. SABIC is responsible for the development of 30+ innovative technologies and 13,000 patents. It releases 150 new products each year, one third of which are 100% sustainable. Innovation is everyone's job in every discipline, concluded Mr. Al Sherehy, challenging the students to be innovative and work as a team.

Dr. Moayyed Al Qurtas, Chairman, GPCA Research and Innovation Committee, highlighted the role of innovation in the polymer industry. In addition to the presentations, Dr. Alaa Idris, a professor from the American University in Cairo (AUC), engaged with the students in an interactive session where the students were presented with a series of questions related to the conference and showcased their findings in the form of a presentation.

We have gained knowledge from people with many years of experience. It's a great opportunity to also share with others our research and all the progress we have made in our studies.

Ghadeer Redha, Trainee, Orpic



6th GPCA Leaders of Tomorrow highlights

www.youtube.com/watch?v=HQ5YVGmfYDI



Leaders of tomorrow is an opportunity that all students should experience once in their lifetime. It brought together students, academia and professionals from across the regional and international platforms to share knowledge and developments.

Mohammed Hassan, Student, KFUPM



Networking opportunities

The 5th GPCA Research and Innovation Summit was held on 11-13 March at the Oberoi, Dubai. As the only event of its kind dedicated to research and innovation in the chemical industry in the GCC, the summit offers the unrivaled opportunity to network with like-minded professionals and learn about the

positive impact that research and innovation can bring to their business, in specific, and the industry, in general. The summit continues to create awareness of the key role of research and innovation as a strategic business pillar, promoting the benefits of R&D and technology management.



“A powerful conference where researchers and scientists connect their minds to share ideas and experiences and solve some of the key challenges facing the chemical industry today.”

Mehtab Gilani, Associate Partner, IBM GBS



Video highlights

Some of the event's key highlights were captured in a selection of videos available on GPCA's official YouTube channel www.youtube.com/user/GPCAorg.



GPCA R&I Summit 2018 curtain raiser

To set the stage for the event, a curtain raiser video highlighted six key mega trends impacting the industry today, and the role of innovation in driving the GCC national visions and chemical industry's growth.

 <https://www.youtube.com/watch?v=vxEhvYRnP3o>



Event highlights video

With over 169 delegates attending the event from across the region and the world, the 5th GPCA Research and Innovation Summit provided an excellent platform to network, address the industry's challenges and foster future partnerships.

 <https://www.youtube.com/watch?v=VBCmaefOz0c>



Download GPCA
events app



Available on the
App Store



ANDROID APP ON
Google play



The event's mobile app offers a reliable and instant way to stay up to date with any event updates, conference program and speakers and engage across all social media channels.

#GPCAResearch on social media

In the first three months of 2018, GPCA gained 1,131 new followers across all of its social media channels. In March Twitter followers exceeded 3,000, while total engagement on LinkedIn increased by over 395%. The top posts during

the R&I Summit were shots of the keynote speakers at the opening of the event. Another widely shared post was the events highlights video and exhibition area.

f FACEBOOK

	2018
Impressions	43,390
Page likes	24
Engagement	111

in LINKEDIN

	2018
Impressions	130,996
Total followers	14,723
New followers gained during the conference	216
Engagement level	1,654
Likes	369
Clicks	1,264

Twitter

	2018
Impressions	55,012
Followers	3,001
New followers gained during the conference	53
GPCA #GPCAPlasticon tweets	62
Likes	98
GPCA tweets retweeted	73
Mention + other tweets	55



The summit in the news

«بروج» تستعرض آخر ابتكاراتها في منتدى جيكا للأبحاث



حضور قوي للشركة في المنتدى | من المصدر

أبوظبي - البيان
التفدي لشركة أبوظبي للاندن البلاستيكية (بروج) - يساهم وجود مركز بروج لابتكار كواحد من أكثر مراكز الأبحاث والتطوير تقدماً في منطقة الشرق الأوسط في تمكين الشركة من تعزيز مكانتها الرائدة كأفضل مزود للحلول البلاستيكية المتكاملة

يشارك

في الخامس للأبحاث والابتكار بدبي

أهمية مشاركة طلاب الجامعات «فائدة الغد» في المنتدى



في الموضوع من زينة مبارك الصباح في أبوظبي، كما ركزوا على تعزيز دورهم في دعم الاقتصاد الوطني، حيث شاركوا في العديد من الفعاليات والأنشطة التي تهدف إلى تعزيز الابتكار والبحث العلمي في القطاع الصناعي.

GPCA initiative hopes to bridge gap between academia and the industry

DUBAI – Leaders of Tomorrow, an initiative by the Gulf Petrochemicals and Chemicals Association (GPCA), aimed at building local human capital in the Arabian Gulf region, entered its 3rd year during the 9th GPCA Research and Innovation Summit and the 6th GPCA PlasticCan, which took place respectively at the Sheraton Hotel, Dubai.

The 3rd edition of the initiative, sponsored by GPCRA, was attended by 40 members from across the GCC. During the event, attendees were able to attend all conference sessions, network with senior industry leaders and learn about the latest innovations and technologies in the region and globally.

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The summit featured a presentation by the GPCRA President, Dr. Alina Salem, who emphasized the importance of innovation in the chemical industry and the role of GPCRA in promoting research and innovation in the region.

London of Tomorrow (L4T) is an initiative to build a career in the chemical industry in the GCC and in the Middle East. GPCRA research and innovation committee, which highlights the role of innovation in the polymer industry, is also a part of the presentation. Dr. Alina Salem, a professor from the American University in Cairo (AUC), engaged with the students in an interactive session where the students were presented with a series of questions related to the conference and were required to submit their findings in the form of a presentation.



Participants at the 9th edition of Leaders of Tomorrow that was held on March 13 at the Sheraton Hotel, Dubai. – Eventing photo

الاقتصاد الدائري والابتكار محور أعمال منتديات «جيكا»

أبوظبي - البيان
تحت إشراف وزارة الاقتصاد، وبالتعاون مع المجلس الوطني للابتكار، استضافت شركة بروج لابتكار مركزاً للابتكار في أبوظبي، حيث تم عرض أحدث ابتكارات الشركة في منتدى جيكا للأبحاث. حضر المنتدى عدد كبير من المسؤولين من القطاعين الحكومي والصناعي، بالإضافة إلى عدد من الباحثين والطلاب الجامعيين.

في كلمته الافتتاحية، أكد وزير الاقتصاد، الدكتور محمد بن راشد آل مكتوم، على أهمية الابتكار في تعزيز النمو الاقتصادي وتحقيق التنمية المستدامة. وأشار إلى أن الابتكار هو المحرك الأساسي للتقدم التكنولوجي والصناعي، وهو الذي يخلق فرص العمل ويحسّن جودة الحياة.

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Borouge showcases latest innovations at GPCA Summit

Abu Dhabi-based Borouge has participated at the 9th edition of the Gulf Petrochemicals and Chemicals Association (GPCA) Research and Innovation Summit, showcasing its latest products and innovative polymer products.

Held in Dubai from 13th-15th March 2018, under the theme of 'Expanding on Innovation', the Summit provided Borouge with an opportunity to showcase its research and innovation capabilities and its role in driving innovation in the polymer industry in the region.

'Having one of the most state-of-the-art research and development centres in the Middle East region, Borouge Innovation Centre enables us to maintain our leading position as the provider of choice of polymer, innovative and sustainable plastic solutions that create value to our customers benefiting from the innovative polymer technologies we use to create new solutions for industrial, energy, packaging, mobility, agriculture and healthcare' said Ahmed Omar Al-Jarrah, CEO of Borouge.

As one of the top Middle East petrochemical companies to produce innovative advanced plastic solutions, Borouge has been able to develop a wide range of innovative polymer products, including high-performance polymers, specialty polymers, and sustainable polymers.



الاقتصاد الدائري والابتكار محور أعمال منتديات جيكا المتقدمة خلال مارس المقبل



في أبوظبي
وتحت إشراف وزارة الاقتصاد، وبالتعاون مع المجلس الوطني للابتكار، استضافت شركة بروج لابتكار مركزاً للابتكار في أبوظبي، حيث تم عرض أحدث ابتكارات الشركة في منتدى جيكا للأبحاث. حضر المنتدى عدد كبير من المسؤولين من القطاعين الحكومي والصناعي، بالإضافة إلى عدد من الباحثين والطلاب الجامعيين.

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الابتكار محور أعمال منتديات «جيكا» بدبي مارس المقبل

دبي - البيان
يعتزم الاتحاد الخليجي للبتروكيماويات والكيماويات (جيكا) استضافة فعاليات الدورة الخامسة من منتدى جيكا للأبحاث والابتكار، والذي سيقام في دبي خلال شهر مارس المقبل.

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GPCA's 'Leaders of Tomorrow' initiative enters 3rd year at R&I Summit, PlasticCan

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Why attend?

Launched in 2014 in Dubai, GPCA R&I Summit offers an ideal environment to meet with researchers, innovators, and thought leaders from some of the most successful businesses in the Arabian Gulf and the world, exchange best practices and discuss the solutions to key challenges facing the industry

today. Key stakeholders from industry, academia, government, technology providers, research organizations, equipment manufacturers and suppliers are represented at the event, in addition to clients of Gulf-based chemical, petrochemical and oil industries.



Meet

key contacts at the largest gathering of petrochemical executives in the Middle East



Hear

from CEOs and other opinion leaders on the future direction of the industry



Obtain

market intelligence by attending the summit seminars



Enlarge

your business network at the extensive summit exhibition



Capitalize

on three days of invaluable content and networking

To find out more about
GPCA R&I Summit
please visit our website

www.gpcaresearch.com





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 US\$ 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

Gulf Petrochemicals & Chemicals Association (GPCA)

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