

Borealis, Borouge and NOVA Chemicals are “Building Tomorrow Together” at the K 2019

- **Borealis, Borouge and NOVA Chemicals announce joint presence at K 2019**
- **Pre-K 2019 kick-off event to take place in Linz, Austria on 25 June 2019**
- **Value-chain cooperation partner EREMA to participate in Pre-K event**

Borealis, Borouge and NOVA Chemicals are dedicated to sustainable business growth through innovation. A long-term commitment to putting the customer first generates cooperation along the entire value chain, which in turn drives both growth and innovation. The K 2019 motto “Building tomorrow together” means working ever more closely with partners around the globe to produce superior and differentiated polyolefins-based solutions for a more sustainable future. Achieving the transformation from today’s linear system to the circular one of tomorrow will be a challenging and complex task, albeit a solvable one, requiring innovation and collaboration along the entire value chain.

Borealis, Borouge and NOVA Chemicals are members of a global family of polyolefins companies and leading providers of chemical and innovative plastics solutions. While each of the three companies operates as a legally independent entity, all benefit from the strong and stable backing of their shared owners: Austria-based OMV, the Abu Dhabi National Oil Company (ADNOC) and Mubadala.

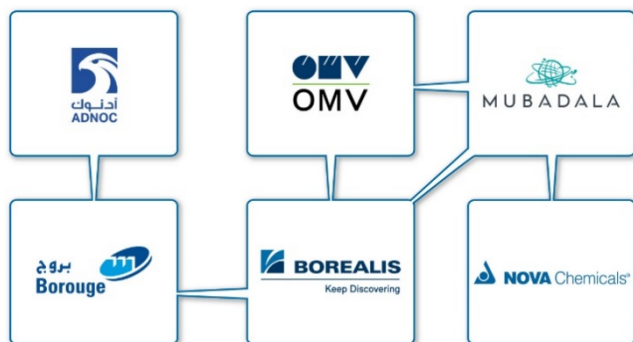


Image: Borealis, Borouge and NOVA Chemicals are members of a global family of polyolefins companies and leading providers of chemical and innovative plastics solutions.

Each company remains committed to deepening existing customer relationships and cultivating new ones. Success is driven by a value proposition that combines a global scale of operations, feedstock integration, proprietary technologies, and access to global markets. A shared dedication to innovation, applications development, and ongoing expansion through investment enables Borealis, Borouge and NOVA Chemicals to grow their global business.

Borealis, Borouge and NOVA Chemicals also share a commitment to using their expertise and global reach to advance the circular economy of plastics. The frontline initiative [Project STOP](#) was co-founded by Borealis and SYSTEMIQ in 2017; the two companies have since been joined by Borouge as a supporting, and NOVA Chemicals as a strategic partner. Project STOP is helping prevent the leakage of thousands of tonnes of plastics into marine environments in Southeast Asia. Project partners work with municipal authorities in Indonesia to design, implement and scale circular economy solutions, including the establishment of effective waste collection, sorting and recycling systems.

Pre-K 2019: the countdown begins to “Building tomorrow together”

A joint Pre-K 2019 kick-off will take place on **25 June 2019 at Borealis Innovation Headquarters** in Linz, Austria. Borealis, Borouge and NOVA Chemicals will provide a preview of their featured topics and activities at the upcoming K 2019 in October. They will be joined at this event for the first time by a value-chain partner, EREMA Group, the global market leader in the development and production of plastics recycling systems.



Image: Borealis, Borouge and Nova Chemicals will be building tomorrow together at the K 2019

Borealis: Ever mindful of achieving plastics circularity

As a global provider of innovative polyolefins solutions, Borealis is at the forefront of industry efforts to develop and implement smart solutions for more sustainable growth. Borealis is using its Value Creation through Innovation approach to deliver novel polyolefins-based solutions that enable plastics reuse, recycling, and recovery, and to design for circularity. These wide-ranging and varied efforts are all gathered under the symbolic roof of EverMinds™, the Borealis platform dedicated to promoting a more circular mind-set within the industry.

Borealis is the first virgin polyolefins producer to have entered the mechanical recycling arena. Its acquisition and subsequent ongoing investments in mechanical recyclers MTM Plastics and Ecoplast mean that sufficient volumes of high-quality post-consumer recyclate (PCR) can be made available for use in more sustainable products and applications. What is more, Borealis has now developed Borcycle™, an evolving new technology used to produce high-quality recycled polyolefin (rPO) compounds. These include the new Borcycle™ MF1981SY, made with Queo™, which is intended for use in high-quality appliance parts. Significant material improvements have also been made to existing recyclate materials in the established Purpolen® brand portfolio.

“Building tomorrow together” also means working in close collaboration with value-chain partners to make plastics more circular. Borealis continues to build on success stories born of cooperation, such as the Full PE Laminate concept; the 100%-PCR glue packaging solution developed with Henkel and other value chain partners; and the growing Daplen™ portfolio of globally-available polypropylene grades composed of both PCR and virgin content.

“The transformation to a regenerative and circular system is an enormous societal challenge,” states Borealis CEO Alfred Stern. “We envision a future of plastics circularity, but it can only be achieved by working together more intensively than ever before with our partners and customers. We welcome the occasion of the K 2019 to demonstrate our commitment to ‘building a better tomorrow together’.”

Borouge: a 20-year journey of growth in Asia and Middle East

Founded 20 years ago, Borouge is a leading petrochemicals company providing innovative plastics solutions for the energy, infrastructure, mobility, packaging, healthcare and agriculture industries, Borouge continues to go from strength to strength.

Borouge’s first polyethylene plant, based in Ruwais, United Arab Emirates, opened in 2001 with 450,000 tonnes capacity. In the following years, the company expanded production into polypropylene and specialised compounds for the mobility and energy industries, achieving its current annual production capacity of 4.5 million tonnes of polyolefins.

The Borouge 4 project, which is presently nearing the conclusion of its pre-FEED phase and will complete by 2025, will include a world-scale, mixed feedstock cracker using existing feedstock available in Abu Dhabi, and downstream derivatives units for both polyolefin and non-polyolefin products. Construction has also been approved of a new polypropylene plant based on Borstar, PP5, to be integrated in the Borouge 3 complex. Once completed, it will drive growth in Borouge 1, 2 and 3, and add further value to the surplus propylene available from ADNOC’s new propane dehydrogenation unit.

Ahmed Omar Abdulla, CEO of Abu Dhabi Polymers Company (Borouge) shared, “We are excited to achieve progress with this mixed feed cracker project which will be a new milestone in the history of Borouge. Having this fourth complex in our world-class petrochemicals complex, in Ruwais, brings us a step closer to achieving our 2030 growth strategy. Not only will the plant contribute to an additional USD 6 billion to Abu Dhabi’s GDP annually as direct benefit from product revenue, our new project will also create thousands of job opportunities during construction phases and once it is commissioned.”

Borouge recently announced that it will significantly increase production of pre-compounded black polyethylene for pressure pipe applications by investing in a production unit which is expected to be completed within 2020. Borouge has an established global track record in providing its customers with advanced plastic pipe solutions with superior processability, performance and quality. The investment will address the rising demand for the materials as many cities in Asia and other growing economies continue to expand and modernise their utilities infrastructure.

As an economic powerhouse, Asia and the Middle East continue to drive Borouge to grow and develop. The emergence of Asia as a hub of urbanisation and home to a rapidly growing middle class presents a wealth of market opportunities.

Thanks to its headquarters in Abu Dhabi and Singapore and a team of experts located across Africa, the Middle East and Asia Pacific, Borouge is ideally positioned to capitalise on opportunities in this diverse and booming region.

A mind-set focussed on sustainable innovation enables Borouge to offer solutions based on sound and sustainable principles which benefit industry, the environment and wider society. Borouge's 2021 Sustainability Goals have largely contributed to increasing the company's focus on specific drivers of performance and further commitment to its long term social responsibility, environmental stewardship and economic growth in the UAE in line with the UAE's Vision 2021. Along with its strong commitment to support the 3Rs concept of Reducing, Reusing and Recycling plastics, Borouge advocates adopting the plastics circular economy as an innovative driving force to ensure plastics sustainability, so plastics never end up in oceans or landfills, but rather be recycled to have a second chance of life.

Borouge is also putting its technical expertise to work in solving the global water challenge through active involvement in the Water for the World programme. It also supports a range of diverse initiatives, including Waste-free Environment, a massive clean-up effort originally founded by the Gulf Petrochemicals and Chemicals Association (GPCA); and the Sustainable Campus Initiative. Borouge has been an active participant in the Responsible Care® Global Charter for over a decade.

"Working together to tackle global challenges is the core of our innovation mind-set," explains Wim Roels, CEO of Borouge Pte Ltd. "We believe it's not about simply shipping products. It's about being part of the industries and communities we serve. We want to understand what everybody in that value chain requires, and how Borouge can make it better, more sustainable and more profitable."

NOVA Chemicals: Investing in a Sustainable Future

NOVA Chemicals is driven to help shape a world where the plastic products vital to life are even better tomorrow than they are today. Part of striving to shape a better tomorrow is investing in real solutions and demonstrating leadership for the betterment of society, the environment and the economy.

To answer the growing need for a plastics circular economy and to reduce marine pollution, NOVA Chemicals has invested in global initiatives that are positioned to bring about meaningful, systemic and permanent solutions to get and keep plastics out of our oceans and the natural environment. In addition to becoming a Strategic Partner in Project STOP, NOVA Chemicals is a founding member of the [Alliance to End Plastic Waste](#) (AEPW). Close to 30 companies have committed a combined \$1 billion USD with a goal to deploy \$1.5 billion (U.S.) in the first five years of the initiative to eliminate plastic waste in the environment. The AEPW has identified several initial projects, including partnering with cities to design integrated waste management systems, funding [The Incubator Network](#) by Circulate Capital and SecondMuse, and supporting Renewlog's [Renew Ganga Project](#). Next month, Todd Karran, president and chief executive officer of NOVA Chemicals, will participate in the AEPW's first face-to-face board meeting in New York City.

NOVA Chemicals is also working closely with converters and brand owners to meet the market demand for greater plastics sustainability in five key areas:

- Reducing food waste through packaging that more effectively preserves perishable foods
- Creating more easily [recyclable packaging](#) and products
- Incorporating recycle into film structures and rigid products traditionally made with 100-percent virgin resins

- Formulating virgin resins for recyclability into higher-value applications
- Reducing the amount of plastic needed to deliver required performance properties

“As global citizens, we all share a role in shaping a better world. At NOVA Chemicals, we understand our role is to be a leader in innovation that enables our customers to deliver plastic products that make everyday life healthier, easier, safer,” stated Todd Karran. “We believe businesses like ours can be a positive catalyst for change to proactively address post-use challenges now associated with plastics use.”

Borealis and EREMA: driving the circular economy of plastics in Upper Austria

The EREMA Group – the global market leader in the development and production of plastics recycling systems and a long-standing Borealis partner – will be represented at the K 2019 through five of its companies: EREMA, along with its business units POWERFIL and KEYCYCLE; as well as PURE LOOP, 3S, UMAC and PLASMAC.

In the spirit of their own K 2019 slogan, “Seeds for your performance”, the EREMA Group companies will showcase comprehensive solutions covering every step of the plastics recycling process, from the recycling technologies at the heart of it all, to software tools as well as engineering and integration services for plastics recycling projects.

A sure highlight of the K 2019 is the EREMA Circonomic Centre. An amalgam of “circular” and “economic,” the “Circonomic” Centre will put the advanced recycling technologies and solutions already in application at front and centre. A live demo will show how waste collected at the K 2019 can be processed efficiently. In tandem with recyclers, producers and brand owners, EREMA will demonstrate how the closed plastics loop functions, from start (plastic waste) to finish (high-quality products made of recycle). An exhibition will provide additional evidence of just how advanced and all-encompassing the range of products made of recycle is today.

“The term ‘Circonomic’ perfectly summarizes our ultimate aim: to integrate recycling know-how into the plastics value chain in order to provide both ecological and economic benefits,” explains Manfred Hackl, CEO of the EREMA Group. “We are pleased to be able to join our partner Borealis at their Pre-K event and help further the cause of plastics circularity. These activities are in line with our recent signing of a Letter of Intent to deepen cooperation with Borealis in the field of mechanical recycling.”

K 2019 will take place from 16 to 23 October 2019 in Düsseldorf, Germany.

Be a part of “Building Tomorrow Together” by visiting Borealis, Borouge and NOVA Chemicals in Hall 6 at Stand A43.

Visit the EREMA Circonomic Centre on the outdoor grounds between Hall 11 and Hall 15.

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About Borealis:

Borealis is a leading provider of innovative solutions in the fields of polyolefins, base chemicals and fertilizers. With its head office in Vienna, Austria, the company currently has more than 6,800 employees and operates in over 120 countries. Borealis generated EUR 8.3 billion in sales revenue and a net profit of EUR 906 million in 2018. Mubadala, through its holding company, owns 64% of the company, with the remaining 36% belonging to Austria-based OMV, an integrated, international oil and gas company. Borealis provides services and products to customers globally, in collaboration with Borouge, a joint venture with the Abu Dhabi National Oil Company (ADNOC) and with Baystar™, a joint venture with Total and NOVA Chemicals in Texas, USA. www.borealisgroup.com

About Borouge:

Borouge is a leading provider of innovative, value creating plastics solutions. A joint venture between the Abu Dhabi National Oil Company (ADNOC), one of the world's major oil and gas companies, and Austria based Borealis, a leading provider of chemical and innovative plastics solutions, Borouge is a groundbreaking joint venture at the forefront of the next generation of plastics innovation. With its base in the United Arab Emirates and Marketing & Sales head office in Singapore, Borouge employs more than 3,000 people representing over 40 nationalities and serves customers in 50 countries across the Middle East, Asia and Africa.

About NOVA Chemicals:

NOVA Chemicals develops and manufactures chemicals and plastic resins that make everyday life safer, healthier and easier. Our employees work to ensure health, safety, security and environmental stewardship through our commitment to sustainability and Responsible Care®. NOVA Chemicals, headquartered in Calgary, Alberta, Canada, is wholly-owned, ultimately by Mubadala Investment Company of the Emirate of Abu Dhabi, United Arab Emirates.

About EREMA:

EREMA (with the two business units POWERFIL and KEYCYCLE), 3S, PURE LOOP, UMAC and PLASMAC are part of the EREMA Group. In addition to subsidiaries in the USA, China and Russia, the group of companies operates a further 50 agencies on all five continents to provide a reliable network for implementing tailor-made plastic recycling solutions for customers all over the world. In total, more than 550 people now work for the Austrian company group based in Ansfelden near Linz.
