







## The report covers:

- Key highlights of chemical industry R&D in 2017
- R&D contribution to economic growth
- Trends in global chemical R&D spending
- · GCC chemistry patents

- · GCC chemistry publications and citation impact
- GCC science university graduates
- Challenges and the way forward

## ABOUT THE REPORT

The GCC Chemical Industry Innovation Indicators 2017 is a series of annual reports which aim to provide an update on the GCC's chemical research and development (R&D) landscape and benchmark its performance against other regions globally. R&D and innovation activities are intrinsically connected and always go hand in hand to ensure any country's progress. Innovation is a critical pillar for the long-term competitiveness of the industry that drives future development and supports the need for innovative products and solutions that cater to future market challenges.

The report provides a comprehensive look into global and regional trends in R&D spending, R&D intensity and GCC's global position in chemistry publications.

It measures the region's share in R&D investment, publications released, number of GCC science graduates and regional chemical patents. With each edition, the report benchmarks the chemical industry's contribution to creating a strong innovation culture in the Arabian Gulf region and defines the way forward for overcoming future challenges and capitalizing on the opportunities to advance the industry further.

As the voice of the chemical industry in the Arabian Gulf region, GPCA has played a catalyst role in recording progress in this vital functional area, and highlighting the milestones and efforts made by regional chemical producers to drive innovation forward.



## KEY HIGHLIGHTS OF CHEMICAL INDUSTRY R&D IN 2017



From a sample of 15 OECD countries, including the US. it is estimated that 1% increase in R&D spending could grow the economy by 0.61%



Total number of GCC region's chemical patents in force is over 9,600, representing a 14% increase on a YoY basis



Global chemical R&D spending has been on a decline since the oil price crash in 2014



Number of GCC chemical patents increased by 6% per annum over the past decade, which is almost on par with global patent rate of 5.6%



GCC region accounts for just 1.3% of global R&D spending



GCC chemistry publications reached around 3,000 per annum, representing about 1% of global publications



GCC chemical industry's R&D intensity has outpaced the historic average, reaching 0.8% of chemical sales



The number of science graduates in the GCC region, including chemistry graduates, exceeded 20,000, posting an 8% increase from the year before

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

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