

# Joint News Release

## **BASF and Linde win ICIS Award for Best Process Innovation**

- **BASF and Linde have collaborated to push the boundaries of chemistry to propose a groundbreaking new catalyst and steam-reforming process**
- **Innovation award is given to BASF's SYNSPIRE™ catalyst in combination with Linde's DRYREF™ syngas process**
- **New process successfully combines high-performance technologies offering a cost-effective CO<sub>2</sub> footprint improvement with global impact**

Linde's DRYREF™ syngas process in combination with BASF's SYNSPIRE™ catalyst enable steam reforming of methane in dryer conditions and the use of CO<sub>2</sub> as feedstock, contributing to energy savings and improved CO<sub>2</sub> footprint. For this new technology, BASF and Linde Engineering have now received the ICIS Award 2019 for Best Process Innovation. ICIS (Independent Commodity Information Service) is the world's largest petrochemical market information provider and each year an expert jury selects the winners of the prestigious Innovation Awards.

ICIS Chemical Business Deputy Editor, Will Beacham, who chaired the award judging panel, says: "Finding the right balance between profitability, energy efficiency and cutting CO<sub>2</sub> emissions is a challenging task in process development. Linde and BASF have collaborated to push the boundaries of chemistry to propose a ground-breaking new catalyst and steam-reforming process with higher efficiency, lower energy demand and a lower CO<sub>2</sub> footprint. The judges were also impressed by the teamwork involved in a joint entry and were pleased to be able to give the award to a new process which could have a significant impact on the global chemical industry and CO<sub>2</sub> emissions."

Detlef Ruff, Senior Vice President Process Catalysts at BASF, says: "This project is an excellent example of how our broad expertise in catalysis and process research combined with Linde's deep know-how in process technology can drive radical innovation. The common achievement is the result of a long-term collaboration of both companies that required trust, openness, excellent technical skills, long-term vision and readiness to take some risks."

Klaus Ohlig, Head of Research and Development of Linde Engineering, says: "We are very proud to receive this award as it honors Linde's and BASF's strong commitment to provide more

sustainable solutions to its customers. With DRYREF™ and SYNSPIRE™, we provide a solution to customers that is environmentally and commercially attractive.”

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## About BASF's Catalysts Division

BASF's Catalysts division is the world's leading supplier of environmental and process catalysts. The group offers exceptional expertise in the development of technologies that protect the air we breathe, produce the fuels that power our world and ensure efficient production of a wide variety of chemicals, plastics and other products, including advanced battery materials. By leveraging our industry-leading R&D platforms, passion for innovation and deep knowledge of precious and base metals, BASF's Catalysts division develops unique, proprietary solutions that drive customer success. Further information on BASF's Catalysts division is available on the Internet at [www.catalysts.basf.com](http://www.catalysts.basf.com).

## About BASF

At BASF, we create chemistry for a sustainable future. We combine economic success with environmental protection and social responsibility. The approximately 122,000 employees in the BASF Group work on contributing to the success of our customers in nearly all sectors and almost every country in the world. Our portfolio is organized into six segments: Chemicals, Materials, Industrial Solutions, Surface Technologies, Nutrition & Care and Agricultural Solutions. BASF generated sales of around €63 billion in 2018. BASF shares are traded on the stock exchange in Frankfurt (BAS) and as American Depositary Receipts (BASFY) in the U.S. Further information at [www.basf.com](http://www.basf.com).

## About Linde

Linde is a leading industrial gases and engineering company with 2018 pro forma sales of USD 28 billion (EUR 24 billion). The company employs approximately 80,000 people globally and serves customers in

more than 100 countries worldwide. Linde delivers innovative and sustainable solutions to its customers and creates long-term value for all stakeholders. The company is making our world more productive by providing products, technologies and services that help customers improve their economic and environmental performance in a connected world.

For more information about the company, please visit [www.linde.com](http://www.linde.com)