Johnson Matthey’s state-of-the-art technology helps China tackle plastic pollution
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- Johnson Matthey will provide Fujian Zhongjing Petrochemical Group with butanediol (BDO) technology to produce bio-degradable plastics (PBAT)
- It will be the world’s largest BDO plant – expected to produce 600,000 metric tonnes of PBAT per year

As China accelerates its efforts to phase out single-use plastics in a bid to tackle pollution, Johnson Matthey, a global leader in sustainable technologies, will provide Fujian Zhongjing Petrochemical Group, with the latest butanediol (BDO) technology – a crucial component to produce bio-degradable plastics (PBAT). Three separate BDO plants will be built in phases.

Using Johnson Matthey’s BDO technology, Fujian Zhongjing, the largest private petrochemical enterprises in east China's Fujian Province, is expected to produce 600,000 metric tonnes of PBAT, per year – making this the largest contract in the world for this technology.

This bio-degradable plastic is used in compostable packaging and decomposes due to naturally occurring microorganisms such as fungi and bacteria.

Dr Mark Su, President, Greater China at Johnson Matthey, says: “As plastic waste is such an issue, a plastic alternative, such as PBAT, could be one of the best solutions available to tackle plastic pollution. With decades of experience in this technology, it’s encouraging to see the positive impact it can have in creating a cleaner world.”

Today’s announcement follows a meeting of the Intergovernmental Negotiating Committee for Plastics in Paris last week as they try to develop the first international, legally binding treaty on plastic pollution, including in the marine environment. Today, the UN predicts that the world produces nearly 430 million tonnes of plastic annually, which is projected to triple by 2060 if no action is taken. In 2020 alone, China produced about 60 million tonnes of plastic waste, yet only 16 million tonnes of which was recycled, according to the China National Resources Recycling Association.

This has prompted the Chinese government to introduce a raft of new laws and regulations to limit plastic waste and to promote plastic alternatives such as biodegradable plastics.
Dr. Su continues: “Our technology also enables our customers to make significant energy savings and operational improvements. With strict permitting protocols in China, we are able to collaborate with our customers to ensure that they have the most efficient and effective technologies in place.”

Weng Shengjin, Chairman of Zhongjing Petrochemical Group says: “We will further increase investment to achieve the goals of energy conservation, carbon reduction and emission reduction.”

John Edwards, Britain’s HM Trade Commissioner for China, says: “I think this is a really significant project for three reasons. Firstly, it is a huge commercial project – nine times larger than any other BDO project in the world. Secondly, it’s driving the vital green transition; it will meet the increasing need for bio-degradable plastics. And thirdly it is a brilliant example of how the UK and China can partner economically and commercially for the good of both countries and the planet.”

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Johnson Matthey is a global leader in sustainable technologies. We apply our cutting-edge science to create solutions with our customers that make a real difference to the world around us. We’ve been leaders in our field for more than 200 years. And now, as the world faces the challenges of climate change and resource scarcity, our sustainable solutions are catalysing the net zero transition: driving down transport emissions, decarbonising the energy and chemical industries, and creating a circular economy. For more information visit www.matthey.com

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