

Mitsui Chemicals Launches Joint Research with Nagaoka University of Technology to Propel Plastic Waste Recycling

Developing effective plastic recycling technology for a circular economy

Mitsui Chemicals, Inc. (Tokyo: 4183; President & CEO: HASHIMOTO Osamu) today announced that it has launched a joint research project in pursuit of innovative technology to promote the recycling of plastic waste, working here with Professor TAKAHASHI Tsutomu, Department of Mechanical Engineering, Graduate School of Engineering, Nagaoka University of Technology, National University Corporation (President: AZUMA Nobuhiko).



Nagaoka University of Technology



From left: Professor TAKAHASHI Tsutomu, President AZUMA Nobuhiko, Mitsui Chemicals Managing Executive Officer SHIBATA Shingo, Mitsui Chemicals RF ISAKI Takeharu

Plastic waste often includes varying states of the material, meaning that when heat is applied for material recycling, the melted plastic is uneven in terms of fluidity. This in turn results in the regenerated plastic itself being unable to maintain a consistent level of fluidity or quality, limiting its range of possible applications. But with this new joint development project, Mitsui Chemicals aims over the course of the next three years to develop technology that will facilitate in-line measurement and control for the melted plastic's fluidity, which will in turn help to stabilize the quality of the regenerated plastic.

Having established the Corporate Sustainability Division in April 2018, Mitsui Chemicals has been proactive in incorporating corporate sustainability factors into its management and strategies. In this manner, Mitsui Chemicals is working to reform its business models in ways that will help to realize a cohesive society in harmony with the environment, as well as health and well-being in an aging society.

Further, in March 2019, Mitsui Chemicals opened the Design & Solution Center in Niigata Prefecture. By accessing the product development capabilities of domestic affiliate Kyowa Industrial Co., Ltd. – a manufacturer of injection molds – and using these to offer solutions, the aim here is to continually create social value.

Nagaoka University of Technology, meanwhile, was designated in 2018 as the world's Academic Impact hub for Goal 9 – Industry, Innovation and Infrastructure – of the UN's Sustainable Development Goals (SDGs).

Hub universities are tasked with leading the way in SDG-related initiatives, with only one university around the world being selected for each goal. An early mover for bringing about a more sustainable world, Nagaoka University of Technology is highly regarded by the UN as a model university for its innovative SDG-related efforts, and is the only East Asian university to be selected as a hub for any of the goals.