



NEWS RELEASE

Water Purification Using Special Fiber Carriers Adopted as a B-DASH Project

Tokyo, Japan, April 13, 2016 --- A consortium comprised of [IHI Enviro Co., Ltd](#), [Teijin Limited](#), [Japan Sewage Works Agency](#) (JS) and Town Tatsuno, Nagano Prefecture, announced today that their joint project using special fiber carriers to reduce waste sludge in wastewater treatment has been adopted as a Breakthrough by Dynamic Approach in Sewage High Technology (B-DASH) Project for FY2016 by the [Ministry of Land, Infrastructure, Transport and Tourism](#) (MLIT).

A shortage of engineers due to urban migration, aging populations and financial difficulties are causing problems for local municipalities when it comes to sewage management. In addition, high sewage treatment costs per unit for small plants put pressure on their finances. Waste sludge disposal costs and operation management commissions are higher for small municipalities than the national average.

This new technology could contribute to a solution to these issues and achieve sustainable sewage management by reducing the amount of waste sludge, which also reduce chemicals and electricity needed to treat it. In addition, it makes sewage management easier by allowing them skip the step of controlling the activated sludge concentration and return sludge volume.

The reduced amount of waste sludge also allows plants to downsize equipment, reduce disposal costs and construction and renovation costs compared to the conventional oxidation ditch (OD) process.

The technology is being field tested in Town Tatsuno, with JS providing wastewater treatment services, IHI Enviro providing the wastewater treatment equipment, and Teijin providing the special fiber carriers. The consortium aims to establish innovative ways of improving the sewage business and promoting sustainable management.

- Consortium members: IHI Enviro, Teijin, JS and Town Tatsuno
- Trial facility: Tatsuno Water Treatment Center, Nagano Prefecture
- Operation capacity: 2,500 m³/day
- Current system: OD process

The consortium has renovated one of the existing reactors at the facility to use the demonstration technology and is comparing the water treatment efficiency against the conventional OD process.

The new technology provides a more efficient alternative to the conventional OD process (except for prefabricated OD process) by significantly reducing waste sludge amount with a multi-staged reactor and special fiber carrier. Fiber carriers are placed at a distance to prevent carriers from sticking together which was caused by the increase in sludge thickness. It also allows the existing equipment to be easily utilized by keeping the reactor's hydraulic retention time.

B-DASH Project was started by MLIT in 2011 to accelerate the research, development and commercialization of new technologies to substantially reduce sewage service costs, create renewable energy and support Japanese enterprises' overseas water business expansion. B-DASH Project research is sponsored by [National Institute for Land and Infrastructure Management](#) (NILIM).

About the Teijin Group

Teijin (TSE: 3401) is a technology-driven global group offering advanced solutions in the areas of sustainable transportation, information and electronics, safety and protection, environment and energy, and healthcare. Its main fields of operation are high-performance fibers such as aramid, carbon fibers & composites, healthcare, films, resin & plastic processing, polyester fibers, products converting and IT. The group has some 150 companies and around 16,000 employees spread out over 20 countries worldwide. It posted consolidated sales of JPY786.2 billion (USD 6.6 billion) and total assets of JPY 823.7 billion (USD 6.9 billion) in the fiscal year ending March 31, 2015. Please visit www.teijin.com.

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