

PRESS RELEASE  
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## **Opening of the Brussels South wastewater treatment plant**

- **A compact and high-performance ultrafiltration membrane treatment system for water re-use**
- **Custom project implementation at a site with multiple constraints**
- **A major technology benchmark**

The Minister of Environment of the Brussels-Capital Region, Céline Fremault, has opened the Brussels South wastewater treatment plant today. The plant includes Europe's second-largest ultrafiltration membrane surface, put into service by VINCI Construction Grands Projets. This project, which has thus concluded a second major upgrading phase, is carried out by a consortium consisting of VINCI Construction Grands Projets, CFE, and Nizet Entreprise on behalf of the city's water-management authority, Société Bruxelloise de Gestion de l'Eau.

From now on, a quarter of the wastewater produced in Brussels Region, which is equivalent to the volume consumed by 360,000 residents, will be treated using a high-performance process that can filter bacteriological waste and re-use water in sprinkling and irrigation systems.

This new ultrafiltration system, implemented by VINCI Construction Grands Projets, comes into play in the final stage of treated water and sludge separation thanks to the deployment of a 226,000-square-metre filtration surface. The process is preceded by advanced primary treatment stages (implemented during the first upgrading phase) using fine-screening settings of 6 millimetres and 1 millimetre and lamellar settling. It provides biological treatment of water to eliminate nitrogen and phosphorus in mixing and aeration basins 30,000 cubic metres in volume and 15 metres in depth. In rainy weather conditions, primary treatment can handle up to 5 cubic metres per second, with ultrafiltration membrane capacity approaching 2 cubic metres per second.

This technology, which combines peak performance (currently a pinnacle in the wastewater treatment sector) and compactness (226,000 square metres of membranes installed on a 1,500-square-metre surface), provides considerable benefits to projects with severe space constraints. That is the case at the Brussels South wastewater treatment plant, whose current site is cramped and packed with multiple structures in a busy urban setting.

Yet another constraint is having to maintain operations at the plant during the entire duration of the project in accordance with a highly precise and demanding task-sequencing schedule. Upon entry into service, each new project phase is operated by the consortium, with VINCI Construction Grands Projets providing close monitoring of the process's development. This overview phase for the new ultrafiltration complex will last two years.

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A new and final project stage will be launched in early 2019 with the construction of digestion (or methanisation) structures to handle sludge resulting from water treatment and of structures dedicated to the re-use of produced biogas for heat and electrical power generation as a means of limiting the new Brussels South wastewater treatment plant's environmental impact.

Brussels South is the tenth membrane-treatment project implemented by VINCI Construction Grands Projets. Its scope and complexity, however, pave the way for new developments in other large cities striving to preserve resources and their reception environments.

#### **About VINCI Construction**

VINCI Construction, a global player and European leader, is active on five continents, with more than 70,000 employees and over 800 companies generating 2018 revenue of almost €14.7 billion. Structured according to an integrated model, the company has the capacity to intervene over the entire life cycle of a structure (finance, design, construction, maintenance) in eight sectors: buildings, functional structures, transport infrastructure, hydraulic infrastructure, energy, the environment, oil & gas, and mines.

[www.vinci-construction.com](http://www.vinci-construction.com)

#### **About the Société Bruxelloise de Gestion de l'Eau (SBGE)**

SBGE is a key player in the water-management policy of the Brussels-Capital Region. Its role is mainly to:

- Purify urban waste waters;
- Ensure the collection of waste waters and regulate their flow in main sewers;
- Monitor rainfall and water flow in main sewers and streams.

SBGE owns and operates the Brussels South wastewater treatment plant. In parallel, SBGE manages the operating BOOT contract of the Brussels North wastewater treatment plant.

[www.sbge.be](http://www.sbge.be)