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# Brussels cleans up its wastewater

## THE RIVER SENNE: FROM OPEN SEWER TO LIVING RIVER

Until recently the river Senne, a small river running through Brussels underground, had the rather unattractive reputation of being known as the natural sewer of Brussels. During the 11th century all kinds of water-related businesses – such as tanneries, breweries and paper mills – established themselves in Brucsellia ("A place in the swamp"). Here, they benefited from the water of the river Senne, but unfortunately they also dumped their effluent in the river.

The situation was alleviated somewhat when civil works commenced in the city centre in February 1867. This involved covering the river, which was in effect an open sewer, as a way of getting rid of the unpleasant smell and giving the city a more pleasing appearance. Naturally, this solution could not be expected to meet modern-day standards. Wastewater management in Brussels grew increasingly dated, and as the conditions failed to meet European directives, it finally became necessary to find a solution for Brussels, which, with its 1 million inhabitants and 340,000 commuters, was one of the last European capitals not to have satisfactory water purification installations in place.

## THE SITUATION

Brussels begins installation of proper wastewater treatment systems.

In the summer of 2000 Brussels South, a water treatment plant designed to handle 400,000 PE, was taken into operation. It collects the wastewater generated by the municipalities situated in the southern part of Brussels. At present, a second treatment plant is being built in the north of Brussels. Known as Brussels-

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TOPIC:

Sewage

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LOCATION:

North Brussels, Belgium

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COMPANY:

AQUIRIS

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North, this large-scale plant will treat the effluent of the city and the northern municipalities. Built where the vaulted river Senne resurfaces from its underground confinement, the Brussels-North treatment plant is designed to handle 1,100,000 PE and is expected to be operational in the autumn of 2006. Design and construction has been placed in the hands of AQUIRIS, a group of companies lead by Veolia Water, well-known as a world leader in water services and treatment systems. Initial construction work began in 2002, and work is progressing according to plan. For more details about the construction work, which involves extensive tunnelling as well as building a modern, glass-roofed structure situated in landscaped grounds, visit the project website. Notice the two-storey clarification tanks – they are quite impressive!

### THE GRUNDFOS SOLUTION

A project of this magnitude imposes strict quality requirements on all suppliers. Grundfos was chosen to supply crucial wastewater treatment equipment because of the company's experience, high level of competence, and extensive technical knowledge. The flexibility of the Grundfos engineering team and product range were also major advantages that compared favourably with other interested parties.

Grundfos was commissioned to supply a total of 12 heavy-duty 200 kW wastewater pumps as well as 36 mixers (7.5 kW), and 48 flowmakers (6 kW). Delivery takes place over the course of 2005. "We are very happy to contribute our products and expertise to the Brussels-North project", says Leo Andersen, Product Business Manager for Wastewater at Grundfos. "Our involvement reflects the faith that contractors have in Grundfos products. It also demonstrates how Grundfos is able to supply a full range of wastewater products – from small to super-large pumps, pump pits, mixers, monitoring and control systems, and much more. We look forward to seeing the finished Brussels plant in operation and to being involved in many more projects like it."

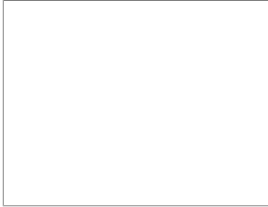
Grundfos was also chosen to supply pump technology for the water supply and heating-related aspects of the Brussels-North plant. This includes three large-scale booster systems with all controls and accessories for water supply as well as all the pumps necessary for efficient heating and cooling. The latter were chosen from the Grundfos TPD and TPE ranges of single-stage inline pumps.

### THE OUTCOME

When all this technology is in place, Brussels will no longer lag behind EU standards. The Brussels-North wastewater plant will meet the strictest of environmental standards, and finally there will be life again in the river Senne.

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## Related Products



### GRUNDFOS S - SEWAGE PUMP

Pumping of raw water, unscreened raw sewage, water containing sludge, industrial effluent