
Press release

WORLD-FIRST IN SIMPELVELD: WITH VERDYGO, WATERSCHAPSBEDRIJF LIMBURG DELIVERS FLEXIBILITY IN SEWAGE TREATMENT.

19 December 2016. Waterschapsbedrijf Limburg has reinvented the treatment of wastewater. This can now be done cheaper, more efficiently, more flexibly and more sustainably using Verdygo design and construction technology.

The 'world premiere' of Verdygo took place at the sewage treatment plants in Simpelveld and Roermond when, on 19 December, the first Verdygo plant was officially put into use. "Amazing how, as a small community, we can nevertheless be a breeding ground for innovation," enthused the Mayor of Simpelveld, Richard de Boer. "Maybe that's even a prerequisite. It's the small-scale nature of our Water Authority that enables us to try out new techniques. Simpelveld being associated with this world-first really puts our wonderful little community on the map."

The world of wastewater treatment is currently evolving at a great pace. There is much innovation going on in the water chain. To purify closer to the water source, to save water during usage and separation, to localise treatment of wastewater, to reduce energy consumption, and to recycle raw materials. It is also increasingly important to be able to respond to demographic and climatic trends; while demands in terms of the quality of treated wastewater are only increasing.

"It's precisely to respond with real vigour to these developments, and ensure we can continue to deliver sustainable constructions and operations at the lowest possible cost to society, that we have developed Verdygo," explains Director, Guus Pelzer. "People in the province of Limburg pay the least tax for their water treatment anywhere in the Netherlands, and we aim it keep it that way."

Modular and flexible

Sewage water is traditionally purified by letting it run through a set number of processes in various fixed tanks permanently set in the ground. With a Verdygo treatment plant, standard modules are constructed above ground. These are fairly easy to disassemble and move. Verdygo is also modular, which means all the components can be coupled with one another. As Ger Driessen, Chairman of Waterschapsbedrijf Limburg, points out, "This creates an enormous capacity for innovation, as we can respond flexibly to climate change, the latest advances in treatment technology and changing market demand."



World-first

At Simpelveld, the Verdygo manner of organic treatment and sludge thickening are being put into practice for the first time. At the sewage treatment plant in Roermond the technology is used in the installations that control the flow of sewage. Simpelveld is also a lab for testing techniques. For example, the four large tanks have been made from different materials: concrete, stainless steel, wood and coated steel. In the concrete tank a test is being carried out in collaboration with TU Delft (Delft Technical University) with self-healing concrete. "When we talk about innovation in Limburg," says Theo Bovens, Governor of the Province of Limburg, "we tend to think of our Brightlands campuses, high-tech systems, the bio-based economy, and so on. Waterschapsbedrijf Limburg is showing how innovation in primary systems such as sewers and treating water not only pays off, but can capture the imagination."

Cost benefits

Verdygo is not only flexible and durable, it also has major cost benefits. "The above-ground, modular, standardized construction delivers substantial cost savings of 20% compared to traditional construction methods," explains Guus Pelzer. "What's more, the construction period is shortened by a third. And annual savings in maintenance costs can also be as much as 20%." Together, the projects in Simpelveld and Roermond cost €10.7 million.

International interest

There's been a great deal of international interest in Verdygo, particularly in the Middle East, where water scarcity is an important issue. Whereas in the Netherlands, treated wastewater is released back into the river, in the Middle East it is further processed to become water for irrigation or industrial applications (or even drinking water).

Verdygo BV was established as a subsidiary of Waterschapsbedrijf Limburg to support partners in the design and construction of modular wastewater treatment plants. Earlier this year, Verdygo BV and Strukton signed a letter of intent for cooperation in the Middle East, and are working together on a variety of projects.

Waterschapsbedrijf Limburg produces purified wastewater, and does this by transporting the wastewater to one of its 17 sewage treatment plants. There we purify the water and dry out the dewatered sludge. The wastewater comes from 500,000 households and 30,000 businesses that are connected to the sewage system in the Dutch province of Limburg. Waterschapsbedrijf Limburg produces 150 million m³ of treated wastewater and 100,000 tons of sewage sludge a year, making it a crucial link in the water chain. Our aim is to develop sewage treatment plants into energy, raw materials and water plants, and thereby contribute to the setting up of a circular economy. Waterschapsbedrijf Limburg is the executive organisation of Waterschap (Water Board) Peel & Maasvallei and Waterschap Roer & Overmaas.

For more information, please visit the websites wbl.nl en verdygo.com

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