

# Cleaning up in Scandinavia

Jan De Nul Group's environmental subsidiary, Envisan, has won several important contracts in Sweden and Norway, writes **Tony Slinn**

“As a new player on the local market, Envisan was proud to be awarded its first contract to de-pollute the Norwegian port of Trondheim and reuse the subsequently treated dredged sediments to reclaim a new harbour area of about 7,000 m<sup>2</sup>,” its regional manager Bart Van Renterghem told IHS DPC.

Envisan, which is the environmental subsidiary of dredging, land reclamation, heavy lifting, offshore and environmental services specialist Jan De Nul Group, only recently became active in Scandinavia. But, in addition to the Trondheim contract, “we can boast a second contract – de-pollution of the port of Oskarshamn in Sweden,” Van Renterghem reported.

“This is without a shadow of a doubt a positive confirmation of our commercial endeavours over the past few years,” he continued. “The market in Scandinavia looks

promising, and having won this second contract we truly hope to secure other projects for the treatment of contaminated sediments and polluted sites.”

## Trondheim

As the largest port in mid-Norway, Trondheim is not just an important commercial facility but also a popular cruise ship stop. It is able to accommodate vessels up to 300 m long, with a draught of up to 14 m, and can handle up to three ships simultaneously.

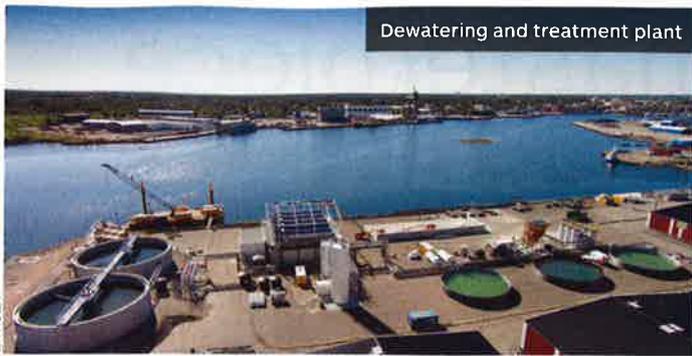
“Operations commenced in the Nyhavn commercial port and the Brattora basseng ferry terminal,” Van Renterghem continued. “Under strict environmental conditions we dredged in total about 65,000 m<sup>3</sup> of sediments polluted by polychlorinated biphenyl (PCB), tributyltin (TBT), polycyclic

aromatic hydrocarbons (PAHs), and heavy metals. Of this volume, we reused 25,000 m<sup>3</sup> for the construction of the new harbour area.”

Envisan began by marking out the reclamation area's contours by building a dyke, taking advantage of geotextile technology. “For the core of the dyke, 7,000 geotextile bags were filled with dredged sediments and recycled sand,” Van Renterghem explained. “Around the filled bags various layers of rock and geotextile were added to fortify the dyke.

“The enclosed basin beyond the dyke was then further filled in with dredged sediments and, finally, the landfill was covered with clay matting and a layer of gravel several metres thick.





"The remaining volume, along with approximately 10,000 m<sup>3</sup> that was dredged from the Kanalen Grilstad port, has been stored in submarine cells that have been completely closed off. The project was delivered successfully in June 2016."

### Oskarshamn

In southeastern Sweden, the port of Oskarshamn, with a total quay length of 2.7 km, handles most types of goods, including containers, dry bulk, and wet bulk cargoes. The port authority contracted Envisan to remove, treat, and store historic pollution that has accumulated in sediments in the harbour basin.

It was estimated at the time that there was more than 1,000 tonnes of heavy metals, along with large quantities of dioxins, in the harbour basin, and that well over 300,000 m<sup>3</sup> of sediment would need to be dredged in a project that would take three years.

"With this project we seamlessly build on

our Belgian experience concerning mechanical dewatering of sediments," Van Renterghem said. "In the port of Ghent, for example, Envisan runs its own soil and sediment treatment centre, while in the Walloon provinces we deploy our mobile floating treatment installation for the decontamination of inland waterways. Of course, in the port of Antwerp and as part of a joint venture [with fellow Belgian dredging giant DEME] we run AMORAS, the largest sediment processing installation in Europe.

"From March to September 2016 in Oskarshamn we developed and mobilised the necessary dredging equipment and built a dewatering and water purification installation over 15,000 m<sup>2</sup> on a quayside in the port. By the end of September, the installation was fully operational, and we started dredging.

"We deployed a small cutter suction dredger, 44 m-long *Petrus Plancius*, fitted with a special environmental cutterhead,"

Van Renterghem noted, "as such a cutterhead can dredge at very high densities and ensures that spreading of the sediment remains minimal.

"The contaminated material is pumped into 80 m-long self-propelled hopper barge *Weseltje* and taken to the purpose-built dewatering and treatment plant. After treatment, the dried sediments are transported by truck and secured in an environmentally responsible manner at a local landfill site in Storskogen."

In early November, the Envisan team was forced to put the work on hold due to the imminent arrival of the region's typically harsh winter.

"Operations will start again in April 2017," Van Renterghem said. "Following that, and after the 2017/18 winter season, works will continue to the end of 2018, when the project must be finalised. By then some 340,000 m<sup>3</sup> of polluted sediments will have been dredged and treated." **DPC**

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*Petrus Plancius* and its special cutterhead  
Envisan

