The frontiersman

A new dredger illustrates the close relationship between owner and builder. DEME CEO Alain Bernard tells Girija Shettar why it works

Belgian shipowner DEME and Dutch engineer and shipbuilder IHC Merwede have described the 30,000m³ trailing suction hopper dredger *Congo River* as "going beyond the next generation". In his post-launch speech, DEME chief executive Alain Bernard highlighted the vessel's multi-purpose nature, saying it "opens up a new dimension for mega trailers".

IHC Merwede president Govert Hamers pointed out that the ship is the first mega trailer in the world to feature a one-man-operated bridge, a feat made possible by the development of an automated dredging system. Developed by technicians from DEME and IHC Systems, the achievement is also notable because *Congo River* is equipped with twin suction pipes.

At a relatively short 168m in length but 38m in beam, *Congo River* will be highly manoeuvrable, much to Bernard's delight. It also has a shallow draught of 12m. Both owner and builder are confident the vessel will be deployable in a wide range of port, entrance and navigation channel projects, for beach nourishment and land reclamation work. With a speed of 16.6kt and total installed power of 23,200kW, it's also suitable for long-distance transport.

During the post-launch speeches, Bernard revealed that DEME and IHC Merwede will join forces in a new enterprise: deep sea mining. A 50:50 joint venture called OceanflORE will "design, build, develop and commercialise deepsea mining and processing services for offshore mining companies".

Bernard and Hamers were in jovial mood at the launch ceremony. Speaking to *Fairplay* after the speeches, Hamers explained: "Deepsea mining is the future. Just as oil and gas moved offshore, we think mining will do the same. DEME has the operational and organisational capability and IHC Merwede can supply the technology, so right now we're trying to bring this to market."

It's not entirely new to IHC Merwede, which has been operating in this sector for the past 10 years, although mainly in shallower waters. The company delivers diamond mining crawlers for De Beers, which are deployed off the coast of Namibia at depths of up to 350m. However, deepsea mining is still seen as a new frontier. "Nobody's been there," Hamers said, "even though we started developing specialist technology three or four years ago."

Bernard fleshed out the rationale: "Currently, we place stones at 973m deep for pipelines and we're developing a ship with a riser pipe system that can place stones at 2km. So we asked ourselves: if we can put things into the ocean at that depth, why can't we also bring something up from that depth?"

It's likely that new types of vessel will have to be built, the CEOs agreed. "The whole application of deepsea mining is very different," said Bernard. "For example, there are many different kinds of materials, both hard and soft, and our service will include processing as well as mining, all of which will inform the vessels and technologies we develop."

DEME, along with other dredging majors, has been pushing into the alternative energy sector. "The market's really picking up for oil and gas, as well as for wind power," said Bernard, whose enthusiasm for his profession and its future is clear.

However, he's fully aware of questions hanging over wind power regarding its efficiency and its future. "I'm convinced the market is good, but I understand the concern," he said. "That's why the jack-up vessels we've built can be used not only for wind farm construction but also for foundations and jetties." Bernard expects to be able to reduce the cost price of building offshore wind farms within a decade. "We'll be able to make it really competitive, especially if the price of oil and gas continue to rise as expected," he said.

As DEME has moved deeper into the energy sector, it has developed a range of affiliations. Bernard explained why this happened. "It's a client-oriented rather than a product-oriented approach," he said. "Each of these companies has different clients, but they all work together. So, for a wind project, GeoSea creates offshore foundations, Tideway places the stones to protect those foundations, Dredging International carries out dredging works and DEME is the main contractor."

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The good relationship between DEME and IHC Merwede clearly goes beyond the two chief executives' friendship. DEME has proven adept at coming up with innovative ways to become more competitive through new technology; IHC Merwede has specialised in creating that technology, growing in competitiveness in the process. "It's symbiotic for both parties," Hamers said.

The name *Congo River* is no longer considered politically sensitive and was chosen for several reasons. Like the river itself, the dredger will be able to quickly displace enormous amounts of sand, and, like the Congo, it has "huge potential", Bernard said. The name is also appropriate because DEME recently signed a contract with the Congolese waterway authority, Regie des Voies Maritimes, to dredge a stretch of the Congo River, deepening it from 5.4m to about 8m. Bernard believes this project, combined with *Congo River*'s launch, will "consciously or subconsciously signal the company's aim to again break into the Congolese market.

"A ship like this [*Congo River*] can only be built when there's very close co-operation between a customer who has strong operational knowledge of the ship wanted and a shipbuilder with the knowledge of how to make that a reality – turning ideas into hardware and software," Hamers explained.

"Innovation is really important. We can't compete if we don't innovate. It's the only way to survive," said Hamers. Bernard agreed. "I have a lot of patents. But we'll have to invent something new in five years time because competitors are copying us."

Competition is everywhere, but Bernard and Hamers are confident they can remain ahead of the game. "Particularly in Dutch-Belgian countries," said Hamers, "we have world-leading dredging companies, specialised shipyards and suppliers, banks that know how to finance these sorts of projects, credit insurance agencies, and universities and schools supplying us with the industry's future professionals. There's a lot of well-established support. It's enabled us to achieve a high-level reputation worldwide."

Bernard added: "Even in Antwerp, you find 'mom and pop' dredging companies that can offer a service for a lower price. But for big projects that, increasingly, clients want finished in a short period of time, these little firms can assist, but they can't actually do the job."

[Photo: DEME]