



DEME

Dredging, Environmental
& Marine Engineering

21 September 2018
PRESS RELEASE

DEME unveils innovative nodule collector pre-prototype 'Patania II'

Global Sea Mineral Resources (GSR), DEME's subsidiary specialised in deep sea harvesting, has unveiled the nodule collector 'Patania II'. The pre-prototype is the successor of the tracked soil testing device 'Patania I', which was successfully tested during a 2017 expedition in the Central Pacific Ocean.

Against a background of a growing population and an increasing scarcity of resources, GSR is developing breakthrough, deep sea mining technologies. The 'Patania II' integrates the track design of the first 'Patania' prototype with a suction head to collect polymetallic nodules from the seabed.

In 2019 the nodule collector will embark on its first expedition in the GSR and BGR (German) exploration areas, involving a test area of 0.1 km². Back in 2013, the International Seabed Authority granted GSR a 15-year concession to explore 76,728 km² of seabed in the eastern part of the Clarion Clipperton Zone in the Central Pacific Ocean.

During the expedition the vehicle will temporarily store nodules harvested from the seabed in a hopper for data collection, and redeposit them in the test area. GSR will use the test data to validate the performance of the technology and to assess the environmental impact of the test operations.

Polymetallic nodules can be found on the seabed in most oceans around the world and contain large quantities of critical raw materials such as nickel, copper, cobalt and manganese. These metals are vital for the urbanisation and electrification of our planet as they are key ingredients for stainless steel, batteries, wind turbines and photovoltaic systems.

GSR has teamed up with Ghent University and together they will monitor the in-situ environmental impact of the 'Patania II', again gathering crucial design data, allowing GSR to further redesign its technology to increase efficiency and minimise its impact. Furthermore, an international consortium of scientists from the EU Joint Programming Initiative for Healthy and Productive Seas and Oceans will provide independent and transparent reporting of additional environmental measurements. All information regarding the environment will be publicly available.

'Patania II' has been developed by GSR in cooperation with the Belgian engineering company De Meyer, located in Temse, Belgium.

About DEME

The Belgian dredging, environmental and marine engineering group DEME is an international market leader for complex marine engineering works.

Building on more than 140 years of experience and know-how, DEME has organically moved into several related sectors, such as the financing of marine engineering and environmental projects, executing complex EPC related marine engineering projects including civil engineering works, the development and construction of renewable energy projects, providing services for the oil, gas and energy sector, the decontaminating and recycling of polluted soils and silts, the harvesting of marine resources, etc.

Thanks to an integrated company structure, DEME strongly emerges as a 'global solutions provider' which offers its clients overall solutions. DEME has the most modern, high-tech and versatile fleet in the industry.

DEME Group has 5,100 employees worldwide and the company achieved a turnover of 2.37 billion euros in 2017. www.deme-group.com

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