

Based on the unique and coherent set of resources, skills and expertise concerning seabed mining operations **the French and the German government** as well as industrial **stakeholders from France and Germany** are signing **Memoranda of Understanding (MoU)** on industrial, technological and scientific cooperation during the **9th National Maritime Conference** on the 20th of October 2015 in Bremerhaven.

Whilst many of these technologies have reached maturity, the necessary research and development still carries a risk; questions about the ecological footprint of underwater techniques must also be assessed, even though they provide a direct answer to several ecological problems arising from uses of land-based technologies. Concrete answers to these questions must be found before industrial development can proceed.

With respect to several EU activities the parties are discussing possible options to join deep sea mining forces of the industrial stakeholders in France and Germany in order to achieve higher impact strength for deep-sea mining in the EU and push for a much more ambitious vision from the EC.

Possible deep-sea mining partners in France and in Germany would be, for example, the members of the French Maritime Cluster and of the DeepSea Mining Alliance. French and German companies could form the core of an obvious network in an internationally-based deep-sea mining strategy.

The Cooperation plan will possibly be elaborated in the following fields:

- Joint Industry Projects
- Pilot Mining Tests
- Joint RTD projects
- Joint marketing activities
- Joint Exploration cruises,
- Deposit evaluation,
- Environmental Impact Assessment Study,
- Impact monitoring and remediation,
- Development & Qualification of innovative and sustainable deep- sea technologies and Technology and Sciences Education and Training.

The **French Maritime Cluster (CMF)** created in October 2011 a **Deep-sea Mining Working Group**, gathering the players of the deep-sea mining value chain, by creating a French industrial network and promoting the deep-sea mining industry towards the French and international decision makers. This working group encourages the members participating in EU and national R&D programs and helps funding & implementations of exploration surveys in the French EEZ.

The French Maritime Cluster has been founded in 2006 for the benefit of professionals, stimulating cooperation between professionals themselves, and between decision makers and professionals and dynamising the maritime economy in order to stimulate concrete businesses.

France has been at the forefront of deep seabed research and exploration around the world for many years. Ifremer signed the first contract for exploration for polymetallic nodules in 2001 in the Clarion-Clipperton Zone of the Pacific Ocean and the second contract for exploration for seafloor massive sulfides in 2014 in the Atlantic Ocean.

The association “**DeepSea Mining Alliance**” was established in April 2014. As a joint industrial platform its main objective is to support the coordinated representation of interests regarding politics, industry and society, focussing on the following items:

- Common platform for industrial and research partners
- Development of international cooperation projects
- Support of deep-sea mining innovations based on Research & Development and Joint Industry Projects
- Preparation and realization of a “Pilot Mining Test”
- Close cooperation with leading research institutes, taking into consideration all environmentally relevant aspects.

Germany holds an exploration license for manganese nodules in the Pacific Ocean since 2006 and a second exploration license for seafloor massive sulfides in the Indian Ocean since 2015. With the support of the German government’s **National Masterplan Maritime Technologies (NMMT)**, policy-makers and society have become more aware of deep-sea mining in recent years, and the issue has been highlighted at various events.