



## Legal and Technical Commission

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### **Application by Germany for approval of a plan of work for exploration for polymetallic sulphides in the Central Indian Ocean**

#### **Summary\***

The Government of Germany, represented by the Ministry for Economic Affairs and Energy and its central geoscientific authority, the Federal Institute for Geosciences and Natural Resources, has applied for an exploration licence for marine polymetallic sulphides in the Central Indian Ocean under the regulations of the International Seabed Authority. The proposed exploration activities will concentrate on an area along the Central and Southeast Indian Ridge system, in the vicinity of the Rodrigues Triple Junction. An area of 10,000 km<sup>2</sup> has been selected, divided into 100 polymetallic sulphide blocks of 10 km by 10 km each and grouped into 13 clusters of 5 to 15 blocks. The German application is based on comprehensive and sound data collected from 1983 to 2013 by German universities (RWTH Aachen University; and Free University Berlin) and the Federal Institute within the scope of research and reconnaissance projects for the formation of seafloor polymetallic sulphides and investigations for the preparation of an exploration licence area according to the German “notification of intention to engage in prospecting” addressed to the Authority on 16 September 2011. The area was first studied by a series of German research cruises as part of the research project entitled “Geothermal metallogenesis Indian Ocean” (GEMINO) in 1983 (*Sonne* (SO)-28), 1986 (SO-43) and 1987/88 (SO-52) and during cruises in 1993/94 (SO-92, *Hydrotrunc*) and 1995 (M-33/2, *Hydrock*). The Federal Institute’s recent index programme included prospecting cruises in 2011, 2012 and 2013 that were conducted under the aforementioned notification to the Authority. Hydrothermal activity and indications for the presence of hydrothermal systems were first identified in 1987 by detailed hydrocast stations; the first sulphide precipitates in the Indian Ocean were discovered in the same year at the inactive “Sonne” field by German groups. In 2012, a new inactive site of polymetallic sulphides (“Gauss”) was identified. Following the regulations and recommendations of the Authority, the

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\* Submitted by the applicant.



focus has been on inactive polymetallic sulphides that do not have a characteristic pristine and environmentally sensitive faunal biodiversity. A special emphasis has been put on state-of-the-art environmental baseline studies and on minimizing impacts to the marine environment and its faunal constituents, including noise reduction for the security of marine mammals. A number of sulphide exploration cruises are scheduled for the first five years for high resolution deep-towed mapping and magnetic measurements. The cruises will exclusively aim at defining exploration strategies for inactive polymetallic sulphides.

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