

Dr Harald Ginzky - Germany

Lead for Intersessional Work on „Test Mining“

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**Report
on the outcomes of the deliberations
of the Intersessional Working Group on „Test Mining“ (IWG TM)**

March to July 2024

This report intends to summarize and report back the main aspects of the informal discussions held intersessionally in the period March to July 2024. It is not intended to be exhaustive. The intersessional work continued from the last meeting of the Council in March 2024, where test mining was discussed as a thematic topic.

Procedural aspects

- (1) The mailing list of the Intersessional Working Group (IWG) entailed more than 60 entries with a good regional representation.
- (2) The group met online once on 1 July 2024.
- (3) As no consensus was reached, a continuation of the intersessional work could be considered in order to facilitate further exchanges.

Substantive aspects

- (1) The IWG had discussed two aspects during the meeting on 1 July 2024. The discussions were based on exchanges in previous periods. Please see the reports to the previous sessions.
 - Aspect 1: How should a test mining project be designed to achieve its purpose?
 - Aspect 2: How does test mining fit into the regulatory system of UNCLOS of activities in the Area (exploration and exploitation)?
- (2) Aspect 1 was intensively discussed by the IWG.
 - Germany provided an input based on initial consultations with German scientists.
 - Starting point has been the initial (legal) definition as reflected in Draft Regulation 48ter Paragraph 2: “Test mining” means an **in situ testing of the integrated system of all relevant equipment ... and process steps ...** for an exploitation activities in a contract area **under such technical, spatial and temporal conditions which allows to provide evidence to demonstrate** that the

proposed mining equipment is technically and operationally appropriate, and that the Marine Environment is effectively protected.”

- Germany’s initial suggestions for further discussion:
 - Test mining is mining – only on a smaller scale; safeguards need to be in place.
 - Technical dimension of TM must be appropriate to allow upscaling.
 - Outcomes from TM to help inform appropriate and effective thresholds, standards and guidelines → IEP.
 - TM limitations: It allows only to inform about the direct effects of a mining operation. Potential larger-scale effects upon the abyssal ecosystem cannot be demonstrated by test mining.
 - Technical dimension: Direct effects can be demonstrated using smaller equipment (collector) tests in combination with modelling (e.g., hydrodynamic/oceanographic, ecosystem, biogeochemical models).
 - Number of sites: TM should span over several (3-5) spatially separated locations within the contract area in order to account for differences (environmental, bathymetry, geology) in different areas.
 - Spatial extent: Minimum size of about 5-10 km² for each of the fields seem to be reasonable.
 - Duration: Minimum for two to three months. This will ensure that field data gathered fulfil the requirement to “allow to provide evidence to demonstrate ...”.
 - Test mining projects must demonstrate that the envisaged monitoring system is fit for purpose; relocation of monitoring equipment included.
- Germany furthermore proposed to consider establishing a subgroup working on these specific requirements.
- In the discussion of the IWG the following points were raised:
 - It is important to clarify the purpose of the test mining.
 - The specific requirements for test mining projects largely depend on whether test mining projects are to be undertaken before submitting an application for an exploitation Plan of Work (PoW) or before the start of commercial production, or both.
 - Some participants recalled that at the last Council meeting in March 2024, there was broad support for requiring some test mining during exploration and before submitting an exploitation PoW.
 - The specific requirements must not be over-prescriptive.
 - Germany’s suggestions refer to Nodule extraction. The spatial requirements for the other categories of resources may be different and need to be discussed as well.
 - One participant argued that the requirements are not acceptable and explained that no contractor currently engaged in exploration would have anything of this scale in mind to be conducted before submitting an exploration PoW.
 - According to this participant, the costs for such kind of test mining projects at the scale suggested by Germany could be around 500 million. This participant shared that an integrated systems test may, however, be possible.

- The idea of a subgroup was mostly seen as interesting, but further considerations were seen necessary. In any case, several participants noted that industry should be involved in such an endeavour.
- It was suggested to send out a questionnaire to all interested parties, especially contractors, about this topic.

(3) Aspect 2 was shortly discussed by the IWG.

- Germany again provided a short input.
 - Before applying for a POW, field data are required to provide evidence that the necessary equipment is available and no negative effects on the marine environment will occur. Without relevant and sufficient field data, computer models would be inaccurate in predicting such harm.
 - Test mining under the exploration regulation is not mandatory and there is no contractual obligation to conduct testing, although contractors have the option to do so and would have to meet certain requirements if they choose to do testing during exploration.
 - Test mining projects are an activity in the sense of UNCLOS and need to be approved by ISA and regulated under a contract, either exploration or exploitation contract.
 - Germany proposes that the exploitation regulation should establish a legal requirement that the EIA/EIS, that is to be submitted along with an application for exploitation PoW, has to be based on field data.
 - The approval of TM before the submission of an application for a PoW will have to be provided under an exploration approval procedure and contract.
 - Setting out the legal requirements in the exploitation regulation is legally permissible although it refers back to the “exploration phase” as the requirements will have to be met only by those contractors who want to move from exploration to exploitation. That means it is a level playing field and applies to all exploration contractors that want to move to exploitation.
 - Germany’s understanding is that TM before the submission of an application could not be a full-scale system test (identical with commercial production) – for various reasons. The term “exploratory TM” was introduced. Thus, a second test mining needs to be undertaken before commercial production commences if there is a “material change” pursuant to DR 57. Here, having an “interim”, “intermediate” or “provisional” phase may be useful as a regulatory checkpoint.
- In the discussion the following aspects were raised:
 - It was said that there seems to be a consensus that the availability of sufficient field data is a necessity for the submission of an application for an exploitation PoW.
 - It needs to be clarified how an effective approval procedure for test mining projects through the exploration regulations could be ensured and whether the exploration regulations need to be revisited.
 - It needs to be ensured that the “German concept” would work for contractors who start the exploitation activity later in time, i.e. those that hold current exploration contracts but are not ready to conduct testing just yet.

- There were some discussions about a potential “intermediate phase”, i.e. after the approval of an exploitation PoW but before the commencement of commercial exploitation.
- It was raised that ISA need to have resources to react if test mining fails before commercial production.

(4) Concluding the debate, five core aspects were identified for further considerations.

- The purpose of TM (including objectives and scope) needs to be defined.
- The purpose (including objectives and scope) may depend on the stage of the process where TM is required to be carried out (before the application, pre-commercial production).
- The costs of TM projects need to be taken into account as one of the factors, among others, when deciding about the scope of mandatory TM, but there was no agreement that it should be a decisive factor.
- Concerning the “legal sitting”, both the responsibility of ISA pursuant to UNCLOS and the interface of TM with other regulatory mechanisms need to be considered further.
- The establishment of a technical subgroup consisting of scientists, regulators and contractors could be considered.