

Dear,

Please find attached the Belgian response to the public consultation.

Kind regards,



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Belgian response to the public consultation

Evaluation and public consultation of an EIS : process and future steps

In May 2018 Global Sea Mineral Resources (GSR) submitted to Belgium, its Sponsoring State, an Environmental Impact Statement concerning Small-scale testing of nodule collector components on the seafloor of the Clarion-Clipperton Fracture Zone and its environmental impact. As the evaluation procedures for Environmental Impact Assessments (EIA) or Environmental Impact Statements (EIS) established by the International Seabed Authority (ISA) do not foresee in public consultation and the Belgian legislation on deep sea mining does not foresee an additional evaluation by the Sponsoring State, GSR was approached by Belgium and several national and international NGOs to participate in a voluntary evaluation and public consultation organised by its Sponsoring State, to which they agreed on.

The FPS Economy, S.M.E.s, Self-Employed and Energy (FPS Economy), FPS Public Health, Food Chain Safety and Environment, the FPS Foreign Affairs, Foreign Trade and Development Cooperation, the Science Policy PPS and the Royal Belgian Institute of Natural Sciences were jointly charged with these tasks. To this aim, dedicated webpages concerning deep sea mining were created on the website of the FPS Economy¹².

The public consultation ran from 1 July 2018 to 31 August 2018 and was announced on the news page of the website of the Federal Public Service Economy, SMEs, Self-Employed and Energy and by e-mail to the ninety participants of the workshop "Deep Sea Mining - Contributing to the elaboration of a Belgian policy". This announcement was also made on the news page of the website of GSR. Finally, on Wednesday 18 July 2018, the Belgian delegation to the Council of ISA, in its statement on the report of the chair of the Legal and Technical Commission (LTC), announced the Belgian public consultation and invited the members of the Council and other stakeholders to take part in this.

Seven comments were received during this consultation. Of these two were from citizens, three from non-governmental organizations and two from scientific institutions. All but one of the comments came from

¹ <https://economie.fgov.be/en/themes/enterprises/deep-sea-mining>

Belgium. Two entries were rejected, one because the information in the submission did not relate to the subject of the consultation and a second one because, despite an application to provide more information, the information in the submission was too limited to be useful and lacking scientific argumentation and background.

Belgium carefully considered all submissions it has received and established, in consultation with GSR and the concerned stakeholders, the following actions:

GSR is requested to provide an updated Executive Summary for its EIS, as well as answers in a separate document to the questions and remarks relating to the content of the EIS, whereas Belgium will respond to the questions that were addressed towards itself and provide recommendations to GSR.

The answers to the questions addressed to Belgium and the recommendations from Belgium to GSR are addressed in this document, which was sent to the concerned stakeholders, GSR and ISA.

GSR has already updated the EIS's Executive Summary, which is annexed to this document. GSR is also requested to provide, before 31 December 2018, tables with answers to the received comments to the concerned stakeholders, Belgium and ISA.

By 15 November 2018 Belgium will publish, on its dedicated webpage mentioned above, all retained comments and the Belgian response. When available, GSR's reply will be added to this webpage as well.

Belgium will transmit all documents mentioned above to ISA and request them to make these publicly available on their website.

In January 2019 Belgium will start with the evaluation of its national legislation on deep sea mining, taking into account the lessons learnt during this voluntary public consultation. Subsequently the legislation will receive the necessary adjustments. In order to promote transparency, GSR and the concerned stakeholders will be invited to participate in a number of meetings, including the kick-off meeting.

Concerning the public availability of data received by Belgium from GSR, Belgium is bound, as a member of ISA, to follow the confidentiality rules as set in the exploration and exploitation regulations of the ISA. All environmental data is considered public, while all other data is considered confidential, unless the owner of the data makes it public. The annual reports received by Belgium contain a mix of confidential and non-confidential information and, as such, cannot be published. ISA is currently developing an online public database containing all environmental data collected by the contractors since its creation. According to ISA, this database should be operational in 2019.

Finally, Belgium, as a Sponsoring State, will not ignore the concept of a circular economy when exploitation takes place. Recycling will still be a priority for our country, and so is transforming into a more circular economy.

ISA regulations and procedures

While GSR could have limited themselves to the requirements foreseen in the provisions of the Recommendations of 1 March 2013 for the guidance of contractors for the assessment of the possible environmental impacts arising from exploration for marine minerals in the Area (ISBA/19/LTC/8), GSR chose to follow, as much as possible, the stricter and more demanding requirements foreseen in the Draft Environmental Impact Statement template (ISBA/24/LTC/WP.1/Add.1), which has been created in application of the draft exploitation regulations. In doing so, they still fulfilled the requirements foreseen in the Recommendations of 1 March 2013 mentioned above. Belgium highly appreciates GSR's efforts in

going beyond ISA's legal requirements on the content of their EIS and in participating in a voluntary public consultation. As this is a pioneer test, it was not possible to include all elements required by this draft template for the EIS, as some parts are unknown and can only be clarified by the results of this test, whereas other parts are not applicable to the test. Belgium evaluated the EIS and found it complete.

Belgium will provide a copy of this response to ISA. This EIS forms the basis for the described test and post-monitoring, therefore the EIS, the reviews and the comments received will be reviewed by an intersessional workgroup of the LTC to ensure the completeness, accuracy and statistical reliability. The LTC will send its remarks to GSR, which will have the opportunity to respond. In the end, the Secretary-General of ISA has to decide if the requirements have been met and the test can take place.

Belgium appreciates the expert reviews that are provided by ISA and the announcement made by the chair of the LTC that a workgroup will be set up to consider the process for its review of the proposal of an environmental impact assessment for test mining or test mining components in the future. We hope it will lead to a more transparent assessment process and the introduction of public consultations in this process at ISA level.

Belgian response to the EIS

This is the first EIS for a deep sea mining test in the Clarion-Clipperton Zone. At this point in time, criteria for evaluation of an EIS exist are yet to be established.

As this is a pioneer test for deep sea mining equipment, no criteria for environmental damage could have been scientifically established yet. The results of the test are fundamental to do so and will be decisive for future tests and steps towards exploitation. Notwithstanding the lack of criteria, Belgium was able to formulate following comments:

In the executive summary, a statement was made that the test will not cause serious harm. Regardless of the scale of this test, which is rather small, it cannot be stated with certainty that no serious harm will be caused, as this is simply unknown at this point. A large lack of knowledge prevents such assumptions. The results of this test will provide very useful information and insights for larger tests and eventually exploitation.

The same reasoning should be applied to the statement that the scale of environmental impact and disturbance is limited and controlled. Both cannot be assumed with certainty at this point in time, as we need the results of this pioneer test to gain further knowledge on impact and disturbance. Thus, these statements, with their current wording, have no place in the EIS at this point in time

The EIS contains references to annual reports, which at this time are not publicly available. Making references to these reports can be somewhat confusing to the public. However, Belgium, as a Sponsoring State, received these annual reports, evaluated these documents and was able to conclude that the references to the annual reports are right. We recommend that GSR makes the parts of the annual reports that were referred to publicly available.

Belgium supports the test proposed in the EIS, as it allows to obtain more knowledge on deep sea mining and as it decreases the knowledge gap that currently exists. The knowledge gained from this test is important in order to set the bar for environmental standards as high as possible. Therefore, the results of these tests will not make Belgium reconsider its position as Sponsoring State, as Belgium needs to

remain in the front seat in order to set high standards and create precedents. We want to make sure that it happens in the right way.



GSR

Global Sea Mineral Resources

Member of the DEME Group

**Prior Environmental Impact Statement:
Small scale testing of nodule collector
components on the seafloor of the CCFZ
and its environmental impact**

Revision of the Executive Summary as part
of the Belgian Response to the public
consultation



DEME: creating land for the future

Executive Summary

Global Sea Mineral Resources (GSR) is developing a pre-prototype vehicle equipped with a launch and recovery system planned to be deployed and trialled in the GSR Contract Area in the Clarion-Clipperton Fracture Zone (NE Pacific Ocean) in April 2019. The present Environmental Impact Statement addresses two distinct projects: (1) the ProCat#2 project; and (2) the monitoring of the disturbance studies of a small scale component trial.

First, ProCat#2 focusses on the technical validation of the design of a pre-prototype vehicle (PPV, named Patania II) with a hydraulic nodule collector head component in its currently intended operational environment in the Clarion-Clipperton Fracture Zone (CCFZ). From a technological point of view, the component validation of GSR's Patania II focusses on validating its manoeuvrability, reliability and nodule pick-up efficiency as part of an eventual future overall integrated mining system.

This PPV trial is a major environmental opportunity to improve our understanding *in situ* of the source of plume emission, in order to inform and assess the environmental performance of the component system design. Furthermore, in collaboration with the Massachusetts Institute of Technology (MIT), the extent, concentration and behaviour of the plume in the vicinity of the Patania II will be measured for different collection scenarios. This information is essential to design a future nodule collector system that minimizes plume generation, and associated environmental effects. The GSR team will monitor and assess environmental effects generated by these activities. The environmental information obtained during ProCat#2 will contribute to informing the work on our next cruise, in 2020, during which, in collaboration with the University of Ghent, effects on the benthic biota will be evaluated.

Second, as suggested during several workshops and in the literature, "*realistic, large-scale mining disturbance studies may be needed to assess the spatial scales and intensities of disturbance resulting from mining*" (Levin et al., 2016). From a scientific point of view, the GSR PPV trial offers a unique opportunity to assess *in situ* for the first time environmental effects that may arise from a potential future nodule mining operation on the seafloor. The Patania II will clear nodules from a small area of seafloor (approximately 0.1 km²) at a water depth of ~4,400 m during a maximum of 4 days. This is the minimum time and space required to achieve the objectives.

GSR is conducting this small-scale component test to help inform the design and establishment of future disturbance studies through an independent monitoring framework tailored to the study and assessment of the environmental effects of full-scale polymetallic nodule mining. As a result, the 3.5-year "Joint Programming Initiative – Oceans" project "MiningImpact 2", involving 31 partners from 9 European countries together with the International Seabed Authority (ISA), decided to monitor the deep sea trial of Patania II.

The JPI-O MiningImpact 2 project aims at delivering new scientific information on future deep-sea nodule mining by (1) developing, standardising and testing monitoring concepts and strategies, (2) investigating the short- and medium-term potential environmental impacts of nodule collection, that in turn feed into the (3) proposal of potential mitigation measures and (4) the development of spatial management plans, and (5) developing sound methodologies to assess risks, benefits and uncertainties that can be incorporated in future regulations and guidelines. The JPI-O MiningImpact 2 project will set up and evaluate a comprehensive monitoring programme that, amongst others, focusses on three major research topics: (1) the potential environmental impact of

a sediment plume, (2) the regional connectivity of species and the biodiversity of biological assemblages and their response to nodule mining, and (3) the integrated effects of mining-related disturbance on the associated ecosystems and their functions.

Small-scale effects on faunal communities may occur due to (1) habitat/nodule removal or alteration, (2) sediment disturbance and plume formation/deposition, (3) physical or biogeochemical alteration of the sediment, and (4) noise and light introduction. Using an integrated 3D hydrodynamic and sediment transport model developed by International Marine & Dredging Consultants (IMDC), the distance that the suspended plume in the water column is considered likely to have spread after 4 days of testing is predicted to vary between 1 and 3 km (cut-off concentration value respectively 10 mg/L and 1 mg/L) and 5-12 km (cut-off value 0.1 mg/L), depending on the current conditions at the seafloor. For the intended disturbance experiment, the sediment deposition from the plume is expected to reach approximately 500-750 m (cut-off value of 1 mm deposition) and roughly 5 km (cut-off value of 0.1 mm deposition) from the source. For the determination of geographical scale / sampling scale of the monitoring survey and the definition of impact zones in the Environment Monitoring Plan, these modelled results have been used for initial orientation, but may be further adapted and/or refined if necessary (e.g., due to refinement of models and/or collection of new baseline data). Dedicated monitoring surveys will take place in the area of nodule removal, the area of plume deposition surrounding the nodule removal area (transects will be conducted up to where deposition is no longer detectable), and in an ecologically similar non-impact reference site. The plume monitoring results will be further used to validate the sediment transport numerical model to inform future EIAs. GSR and the JPI-O MiningImpact 2 scientific team will independently monitor and analyse the effects created by the Patania II.

This collaboration is intended to promote improved understanding and comprehensive assessment of the potential environmental effects of future nodule mining activities, the design of fit-for-purpose monitoring programmes, and environmentally and commercially responsible standard development. GSR and the JPI-O MiningImpact 2 project are committed to organising, facilitating and effectively managing the archival of generated environmental data and samples in databases with established structures and capabilities, such as PANGAEA and European museum collections, based on established protocols and best practices for research expeditions, the specific code of conduct for marine scientific research, and the ISA's and the EU's requirements for data- and knowledge-sharing.

The goals of both the Procat#2 and the disturbance studies intended with the GSR PPV trial form part of the requirements established in the exploration contract between GSR and the International Seabed Authority (ISA). These activities are subject to a "prior Environmental Impact Assessment (EIA), which culminates in an Environmental Impact Statement (EIS), for which GSR will follow the ISA's reporting requirements.

The results of the proposed activity will be publicly available and will be among the primary inputs to EIAs for eventual further test activities.

Further to the comments received during the public consultation, GSR is at present developing additional investigations accordingly. These will be submitted to the Belgian Federal Government (under the supervision of the federal public service of Economy, SMEs, Middle Classes and Energy and the federal public service of Health, Food Chain Safety and Environment) with the answers to the received comments by 31 December 2018.