# Public consultation on the state of play and perceived impacts of deep sea mining

*Interest in deep sea mining operations has been developing since the mid-1960s when it was considered as an alternative for accessing minerals, primarily for manganese nodules. However, as knowledge and technology progressed it became clear that real costs of this kind of exploration and extraction might go beyond what had been initially forecasted. At the same time, additional land-based deposits of minerals have been discovered which have redirected efforts and led to a decrease in market price.*

*Nevertheless, over the past ten years access to raw materials has once again become a focal point for the European Union (EU). Currently, the EU is increasingly dependent on imports for some strategically important raw materials, while exploration and extraction of these materials is facing increased competition and a strongly regulated market environment.*

*In order to gain insight into the development of deep-sea mining and its associated impacts the European Commission`s DG MARE has contracted Ecorys to carry out an extensive study. As part of this study we would now like to invite stakeholders to express their views on the sector and its related impacts.*

*We set out some questions below which will help us to analyse the current state of the industry. While some questions may be difficult to answer precisely; please provide your best estimate where possible. Please note that responses to this questionnaire will be handled in the strictest confidence and will only be used for the purposes of this study. In preparing our reports for the Commission (which may subsequently be published), care will be taken to ensure that specific responses cannot be linked to individual companies. If you have specific concerns about how your views will be treated please contact us (see email below) and we will be happy to discuss your concerns.*

We would be very grateful if you could answer the following questions **by 16 May 2014.**

Thank you very much for your assistance.

1. **About your company**
2. Please provide the following details:

|  |  |
| --- | --- |
| Contact name: |  |
| Name of company/institute:  |  |
| Email:  |  |
| Telephone number: |  |

1. Please indicate the category of your organisation as below

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Research Institute** | **Private enterprise** | **National Authority (e.g. ministry)** | **NGO** | **Other please specify** |
|  |  |  |  |

1. If you are a private enterprise please indicate the type of activity you are carrying out in relation to deep sea mining

|  |
| --- |
| **Type of operation** |
| Research, innovation | Exploration  | Regulation, policy | Financial support | Other, please specify:  |
|  |  |  |  |

1. If you are representing a private enterprise, please indicate your country of registration:

|  |
| --- |
|  |

1. Please indicate in what other countries you are operating in:

|  |  |  |  |
| --- | --- | --- | --- |
| All EU28 |  | Lithuania |  |
| Austria  |  | Luxembourg |  |
| Belgium |  | Malta |  |
| Bulgaria |  | Netherlands |  |
| Croatia |  | Poland |  |
| Cyprus |  | Portugal |  |
| Czech Republic |  | Romania |  |
| Denmark |  | Slovakia |  |
| Estonia |  | Slovenia |  |
| Finland |  | Spain |  |
| France  |  | Sweden |  |
| Germany |  | UK |  |
| Greece |  | USA |  |
| Hungary |  | Russia |  |
| Ireland  |  | China |  |
| Italy |  | Australia |  |
| Latvia |  | Other please specify |  |

1. Please provide us with some basic information on your company/institute:

|  |  |
| --- | --- |
| Year of establishment |  |
| Number of employees |  |
| % change in the number of employees in the last 5 years (please use +/- signs to indicate growth or reduction) |  |

1. **Deep Sea Mining**
2. Are you involved in deep-sea mining operations?

|  |  |
| --- | --- |
| Yes |  |
| No |  |

1. Does your company/institute carry out activities related to land-based or shallow water mining?

|  |  |  |
| --- | --- | --- |
|  | Yes | No |
| Land-based mining |  |  |
| Shallow water mining |  |  |

1. Please identify what types of minerals are your operations focussing on?

|  |  |
| --- | --- |
| Construction minerals (aggregates : sand, gravel,... ) |  |
| Industrial minerals (silica sand, aragonite, phosphates and sulphur) |  |
| Metallic minerals in placer deposits (gold, platinum, tin, titanium, REE; |  |
| Metalliferous oxides (with manganese, copper, nickel, cobalt, REE, PGMs) |  |
| Crusts and nodules types |  |
| Metalliferous sulphides (copper, lead, zinc, chromium, gold,...) |  |
| Dissolved minerals (lithium, boron) |  |
| Other, please specify:  |

1. Please identify which stages of operation does your company/institute contribute to?

|  |  |
| --- | --- |
| Exploration (locating, sampling and collection) |  |
| Extraction |  |
| Transportation (shipping and ship-building); |  |
| Processing |  |
| Other, please specify:  |

1. How long has your company/institute been involved in activities related to shallow-water mining/aggregates mining?

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  1 year |  | 2-5 years |  | 6-10 years |  | >10 years |  |

1. How long has your company/institute been involved in activities related to deep-sea mining?

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 1 year |  | 2-5 years |  | 6-10 years |  | >10 years |  |

1. What in you view is the most likely timescale for the start of commercial extraction in deep-seas based on the level of your technological preparedness?

|  |  |  |  |
| --- | --- | --- | --- |
| 1 year |  | 6-10 years |  |
| * 1. years
 |  | >10 years |  |

1. What are the main unsolved technological issues that could delay a start of commercial extraction processes?

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| --- |
|  |

1. Do you think international legislation is developing at an adequate pace to provide the necessary policy background for the extraction and follow-up activities?

|  |  |
| --- | --- |
| Yes |  |
| No |  |
| Please provide explanation |

1. **Challenges**
2. Please identify what you expect to be the main challenges for your company/institute in the future

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Not applicable | Not challenging | Slightly challenging | Moderately challenging | Very challenging |
| Access to finance |  |  |  |  |  |
| Costs of operation |  |  |  |  |  |
| Competition |  |  |  |  |  |
| Availability of skilled staff |  |  |  |  |  |
| Legislative requirements |  |  |  |  |  |
| Licensing |  |  |  |  |  |
| Access to technology |  |  |  |  |  |
| Innovation |  |  |  |  |  |
| Uncertainty on environmental impacts |  |  |  |  |  |
|  |  |  |  |  |  |
| Other, please specify: |

1. Please rate the importance of the following ways in which your company could be helped to address the challenges it faces?

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Not applicable | Not important | Slightly important | Moderately important | Very important |
| Support for research and development(technology, design, etc.) |  |  |  |  |  |
| Support the financial strengthening (loans, credits etc.) |  |  |  |  |  |
| Support human resource development(training, etc.) |  |  |  |  |  |
| Support for implementation ofinnovation |  |  |  |  |  |
| Other, please specify: |

1. **Costs**
2. What are the approximate total values of the investments you have made over the past 5 years?

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | No investment | Less than € 10.000 investment | Less than € 100.000 investment | Less than € 1 million investment | More than € 1 million investment |
| Investments in research and innovation |  |  |  |  |  |
| Investment in equipment (ROVs, robotics, sensors etc.) |  |  |  |  |  |
| Investments in employee training |  |  |  |  |  |
| Investments in ships and other infrastructure |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
| Other, please specify: |

1. How were these investments funded? Please tick all the 'private' finance sources that you have used.

|  |  |
| --- | --- |
| Self-financed |  |
| Banks |  |
| Other lending institutions |  |
| Private investors  |  |
| Corporate investors |  |
| Mergers and acquisitions  |  |
| Other, please specify:  |

1. How were these investments funded? Please tick all the `public` finance sources that you have used.

|  |  |
| --- | --- |
| Regional government funds |  |
| National government funds |  |
| EU funds |  |
| International donors |  |
| Other  |  |
| Please specify the source of funding: |

1. Please let us know of any other details you would like to draw attention to in relation to deep-sea mining.

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