MINDeSEA

Seabed Mineral Deposits in European Seas:
Metallogeny and Geological Potential for Strategic and Critical Raw Materials

Deliverable 7.2: WP7 Database and maps on exploration in pan-European seas

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<thead>
<tr>
<th>Deliverable number</th>
<th>Short Title</th>
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<tbody>
<tr>
<td>7.2</td>
<td>Database and maps on exploration in pan-European seas</td>
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</tbody>
</table>

### Long Title

Deliverable 7.2 – Database and maps on ferromanganese crusts and phosphorites

### Short Description

This document presents a summary on the WP7 database and maps on exploration in pan-European seas

### Keywords

Database, mineral occurrence map, seabed mapping, exploration, European seas

### Authors / Organisation(s)

<table>
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<tr>
<th>Author(s)</th>
<th>Organisation(s)</th>
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</table>

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<th>Comments</th>
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### Dissemination level

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Summary:

GeoERA is a Co-Fund ERA-NET action under Horizon 2020, towards "Establishing the European Geological Surveys Research Area to deliver a Geological Service for Europe". Its main objective is to contribute to the optimal use and management of the subsurface.

The project “Seabed Mineral Deposits in European Seas: Metallogeny and Geological Potential for Strategic and Critical Raw Materials” (MINDeSEA), materialized in the frame of the GeoERA Raw Materials Theme (Grant Agreement Nº 731166, project GeoE.171.001), resulted from the collaboration between eight GeoERA Partners and four Non-funded Organizations at various points of common interest for exploration and investigation on seafloor mineral deposits.

This document reports a summary on the MINDeSEA database and maps of exploration in pan-European seas produced during the project life (July 2018 - October 2021).

The database compiles all existing and accessible data on minerals research/exploration in European waters, generating a harmonised dataset from known and sampled sites and mineral occurrences in terms to create a new dataset on the distribution of the explored areas for submarine mineral resources in Europe; (ii) to propose recommendations for new unexplored areas; and (iii) to recommend pilot areas with high potential of discovering new submarine mineral resource mineral accumulations. Free and open access to data and maps, under CCBY license, are available in the GeoERA and EGDI portals and visors.

The database on exploration contains 32 cruise surveys, in 5 marine regions (Baltic Sea, Barents Sea, Bay of Biscay and the Iberian Coasts, Macaronesia, Mediterranean Sea) and 6 EU countries (Spain, Portugal, Italy, Sweden, Norway) and contiguous International Waters. Detailed information on the seafloor exploration technics and explored areas is available on Deliverable 7.3 and its specific maps (Fig. 1, zones A, B, C).

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Figure 1: MINDeSEA compilation map for exploration in pan-European seas. Last update: October 2021.
D7-2: Database and maps on exploration in pan-European seas

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Exploration cruises carried out in pan-European Seas

Scale 1:10.000.000
Last Update: October 2021

SGU Exploration areas

Seaed characterisation surveys made by the Swedish Geological Survey (SGU) between 2012-2016. Those areas were surveyed in detail by geophysical techniques and sediment studies (drudge and box-core).

K 414 exploration campaign
K 510 exploration campaign
K 539 exploration campaign
K 540 exploration campaign
K 542 exploration campaign

0 200 400 Km
1:10.000.000

Akademik Sergey Vavilov (1997)

Cruise survey carried out by Shrekhov Institute of Oceanology of the Russian Academy of Sciences (IO RAS) in 1997 in the research vessel "Akademik Sergey Vavilov".

sediment sample + water column profile
water column profile
Cruise survey
Start
End

0 200 400 600 Km
1:15.000.000

Zone A


Data Processing: Zalba, I., Marino, E., Lobato, A., Blasco, I., Alcorn, T.
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