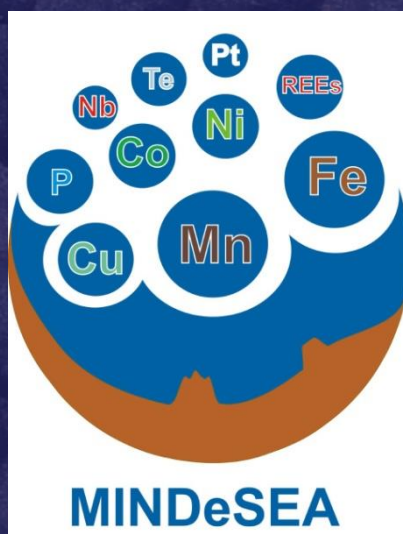


MINDeSEA

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



Deliverable 6.3: WP6 Database and maps on polymetallic nodules

WP6 leader:

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Deliverable number	Short Title
6.3	Database and maps on polymetallic nodules
Long Title	
Deliverable 6.3 – Database and maps on polymetallic nodules	
Short Description	
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D6.3. Database and maps on polymetallic nodules

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 N° 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 pan-European polymetallic nodules produced during the project life (July 2018 - October 2021).

The database compiles all existing and accessible data on polymetallic nodules in European waters, generating a harmonised dataset from known and sampled sites and mineral occurrences in terms of setting, morphology and chemical composition, including strategic and critical special metals, such as cobalt, rare earth elements, lithium, manganese, nickel and copper. Free and open access to data and maps, under CCBY license, are available in the [GeoERA](#) and [EGDI](#) portals and visors.

The database on polymetallic nodules contains 296 occurrences, 490 individual analysed samples, in 7 marine regions (Arctic Ocean, Baltic Sea, Bay of Biscay and Iberian Coast, Celtic Sea, Central-NE Atlantic Ocean, Macaronesia and Black Sea) and 16 EU countries (Germany, Denmark, Estonia, Spain, Finland, France, United Kingdom, Ireland, Latvia, Norway, Poland, Portugal, Romania, Russia, Sweden, Ukraine). 12 critical elements (Ba, Bi, Co, HREE, LREE, Nb, P, Sc, W, V, Li, Ti) and 5 strategic metals (Mn, Ni, Cu, Mo, Zn) are compiled in the database and mapped at a scale 1:250,000 (**Fig. 1**).

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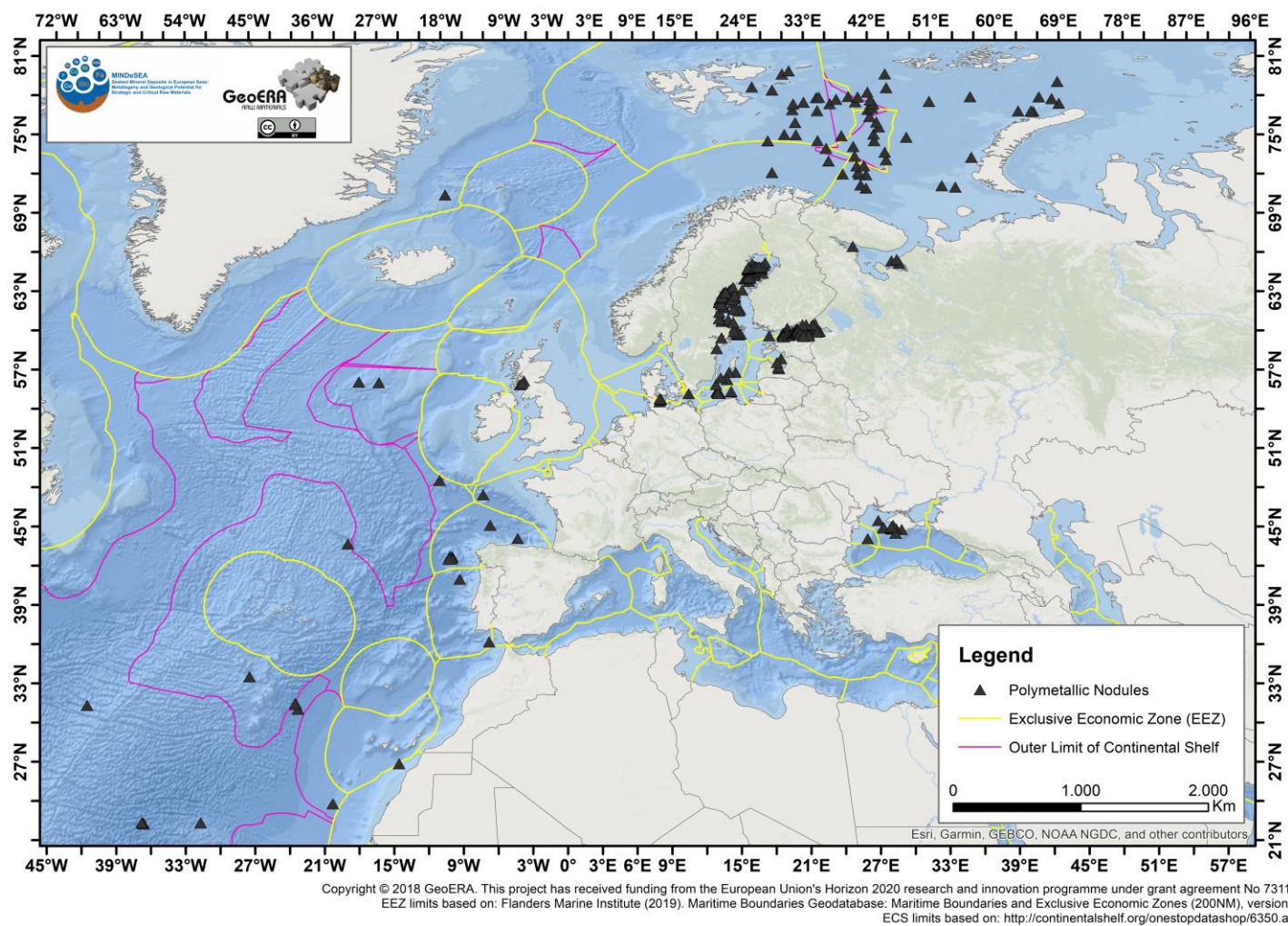


Figure 1: MINDeSEA compilation map for polymetallic nodules in pan-European seas. Last update: October 2021.

