## Marine contaminant data: HarmoNIA project case study to analyse strengths, weaknesses, opportunities and threats of large marine data infrastructures

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## Abstract:

Marine pollution due to a large and heterogeneous number of substances is a key environmental problem in the European seas. Availability of harmonized and validated data is pre-requisite for environmental status assessment and for adequate management, to achieve and maintain good environmental status (GES), as required by major European and regional directives. Based on the experience obtained in data collection, validation and analysis carried out in the framework of HarmoNIA project, an in-depth analysis of strengths, weaknesses, opportunities and threats of the current approach to manage data of marine contaminants is here presented.

Keywords: marine contaminants; environmental status; data management; quality control; metadata

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With the goal of contributing to tackle environmental vulnerability at transnational scale, HarmoNIA project, financed by Interreg ADRION Programme, aims at:

- promoting availability, sharing and multiple use of marine data
- sharing best practices to support harmonized implementation of marine environmental directives, and
- strengthening the network of data infrastructures to facilitate access of marine data, especially contaminants, among countries bordering the Adriatic Ionian Seas

HarmoNIA builds on the long-term consolidated EU initiative EMODnet Chemistry for the management of marine data. EMODnet Chemistry adopts and adapts tools and standards implemented in the framework of SeaDataNet, the leading pan-European infrastructure to manage, index and provide access to ocean and marine data sets and data products. To collect the real needs

in terms of data and information required to manage the marine ecosystems and reach good environmental status, the project involves a network of relevant stakeholders from the countries bordering the Adriatic – Ionian Seas. Besides giving access to data on marine contaminants for the area, HarmoNIA has implemented Quality Control guidelines for a set of contaminants as well as examples of data visualizations and products useful to understand the monitoring efforts and the level of pollution in the Adriatic and Ionian Seas.



Figure 1: Data portal or GIS or products

Based on the experience obtained in data collection, validation and analysis focused on the Adriatic and Ionian region and also considering the feedbacks collected from stakeholders, an in-depth analysis of strengths, weaknesses, opportunities and threats (SWOT) of the current approach to manage data of marine contaminants is here presented. Taking into account the needs and recommendations emerging from the SWOT analysis, suggestions to improve the current management of marine contaminant data are provided, aimed also to improve synergies among different data management initiatives and to facilitate quality controlled data and information exchange within the region to support environmental management.