

## HarmoNIA



Harmonization and Networking for contaminant assessment  
in the Ionian and Adriatic Seas

## Transnational Network of Institutions

Sharing expertise and information towards  
harmonization of monitoring of contaminants in the  
marine environment, data management  
and visualization



2020

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## HarmoNIA Project in brief

The overall increase in maritime transport, coastal urbanization and the foreseen increase in offshore oil and gas extraction pose serious risks of pollution from hazardous substances for several coastal states in the whole Mediterranean Sea, and particularly in the Adriatic – Ionian region. Countries sharing a marine region or sub-region should adopt a common approach for environmental monitoring, good environmental status definition and assessment.

In the Adriatic – Ionian marine sub-regions, the level of coherence and consistency of several EU and regional environmental policies is low, and in particular the assessment of contamination from hazardous substances, needs a common implementation. Availability of harmonized and validated data sets together with the related information, are prerequisites for the proper understanding and management of the marine environment.

HarmoNIA builds on the long – term EU initiative EMODnet for the management and supply of fragmented marine data, in order to strengthen transnational network of institutions involved in marine research and in the MSFD and UNEP/MAP protocol implementation, and facilitate access and re-use of marine data among countries bordering the Adriatic – Ionian Seas.

In order to promote availability, sharing and multiple use of marine data to tackle environmental vulnerability and safeguard ecosystem services, HarmoNIA Network involves project partners as well as other institutions responsible for national monitoring and research in a transnational network, which are encouraged to use common data management protocols, common data Quality Control and visualization practices, common data formats and software requirements and functionalities.

During dedicated stakeholder workshops and other communication, dissemination activities organized during the whole lifetime of the project, the network is being expanded. Public authorities in charge of environmental control and international coordinating units have been engaged in order to address current lack of harmonization in the region and assist in the implementation of the main environmental management directives and protocols focused on contaminants in the marine environment.

Last but not least, during the project, the partners increased awareness about the implementation levels of the relevant EU directives at the national level, which will also benefit them in the future on establishing contacts and on planning harmonized monitoring.

## Our approach

The following actions have been undertaken to promote sharing expertise and information towards harmonization of monitoring of contaminants in the marine environment, data management and visualization in the ADRION region:

- Definition of HarmoNIA Data Policy to regulate access and use of data.
- Collection of information on the types of contaminants being monitored and the types of data made available through dedicated questionnaires.
- Collection of information on analytical protocols, methods' precision and accuracy and Quality Assurance and Quality Control procedures.
- Sharing of a standardized and harmonized approach for data and metadata collection and management implemented by consolidated EU initiatives.
- Preparation of Guidelines for data management to consider requirements raised within the HarmoNIA community.
- Organization of dedicated training sessions to share expertise, knowledge and tools with stakeholders from all ADRION countries.
- Compilation of an inventory of institutions and environmental agencies responsible for national monitoring and research which can benefit by joining the HarmoNIA network.

## Overall goals

A framework for the establishment of a transnational network is agreed with the aim to strengthen harmonization of monitoring procedures, of data management and data visualization, in support of the implementation of EU directives (namely WFD, MSFD, MSP) and the Barcelona Convention (IMAP, MED-POL). The overall purpose of the network is to strengthen cooperation between institutions from EU and other countries in charge of environmental monitoring, in order to address current lack of harmonization in the Adriatic-Ionian region and assist in the implementation of the main environmental management directives and protocols. In particular, the efforts are focused on the requirements of the Marine Strategy Framework Directive (MSFD, 2008/56/EC) and of the Integrated Monitoring and Assessment Programme of the Mediterranean Sea and Coast (IMAP) of UNEP/MAP, to improve adequacy, coordination, coherence, data management procedures and interoperability based on common parameters (Integrated Monitoring and Assessment Programme of the Mediterranean Sea and Coast and Related Assessment Criteria UNEP/MAP Athens, Greece, 2016).

The main objective of the transnational network is to provide a structured and well-balanced model of international cooperation in the **field of monitoring and assessment** of contaminants in the marine environment in the Adriatic-Ionian region.

The network supports the provisions of the MSFD, which require:

- Harmonised monitoring and assessment methods.
- Co-ordinated monitoring system and shared communications and data processing facilities.
- Joint monitoring programmes as the basis for the assessment of transboundary impacts.

The aims of the transnational network of organisations are to:

- share experience within the network to improve harmonization in data acquisition, management, processing and visualization
- promote the use of common tools for the harmonization and validation data
- make easy access to marine chemical data
- promote the use of common tools for visualising data across the entire region

## Common information framework

In the framework of HarmoNIA project, the following information was collected from all participating institutions involved in the national monitoring programmes of contaminants in the marine environment:

- list of parameter measured
- methodologies of sampling the marine environment (water, sediment, biota)
- sample pre-treatment methods
- analytical methodologies
- Quality Assurance methods (inter-calibration exercises, use of reference materials)
- criteria for status assessment regarding contaminants in the marine environment

Regarding harmonization in data acquisition, management, processing and visualization, a common understanding among organizations involved in the transnational network was achieved:

- harmonization of monitoring data begins with the preparation of monitoring programs
- methods of sampling, sample pre-treatment and analytical methods have to produce coherent and comparable results
- common data formats, data dictionaries, metadata and QA/QC procedures need to be established and applied
- common data visualisation tool should be developed and used.

In the future, HarmoNIA transnational network of institutions in the Adriatic – Ionian region will promote cooperation in the field of monitoring and assessment of contaminants in marine environment. HarmoNIA transnational network of institutions will also support knowledge and technology transfer in the science to policy interface. The network involves research institutions as well as public agencies and administrations with the aim to overcome the various barriers between science and policy that are currently hindering knowledge transfer. Furthermore, HarmoNIA transnational network will make every effort to ensure close coordination with all Member States and third countries in the concerned region.

## Network commitments

Participation to HarmoNIA Network is free and not binding. The HarmoNIA Network is formalized by the acceptance of the present cooperation agreement. In accordance with the capacity and its legal framework of competence, the members of the network will commit to **share expertise** and **information** as detailed below, to participate to **periodic meetings** and to **share HarmoNIA Strategies** towards improved regional collaboration. **According to their level of expertise and their body legal obligations, members of the network agree to:**

- Share information on methodological procedures for monitoring contaminants in the marine environment.
- Share information on approaches for environmental status assessment.
- Share needs in monitoring and assessment of marine contaminants.
- Share best practices to improve the common approach to monitor and assess marine pollution.
- Share data on contaminants in the marine environment.
- Share and possibly adopt Guidelines and Strategies proposed by HarmoNIA project.

## Network Governance and openness to additional members

The founding members of the HarmoNIA network are the 10 partners of the project HarmoNIA, financed by Interreg ADRION Programme. They form the Governing Board of the network, which is responsible for setting the priorities of the network commitments. The Governing Board will elect a secretary, assigned for one year, who will be in charge of calling the network meeting and registering new members. The validation of HarmoNIA Network Governing Board decisions / actions is based on absolute majority votes of the present or represented members. Voting may utilize some electronic voting tool or performed via email.

The General Assembly of the Network convenes once per year either physically or virtually in order to share expertise and information among the members.

The network is open to any other stakeholders showing interest and willing to accept the commitments described herein.

**Any stakeholder interested in joining HarmoNIA network is required to register through the accession form after accepting the present document.**

[HarmoNIA Network Application Form \(https://tinyurl.com/y9zs6r35\)](https://tinyurl.com/y9zs6r35)

Registration of new members will be approved by the Governing Board.

## Network duration

Most of the founding members of HarmoNIA Network have a long history of collaboration within previous projects and are involved in ongoing long - term European initiatives. The founding members of HarmoNIA Network agree to maintain the commitments for **at least 3 years after HarmoNIA project closure.**



## Founding members of the network:

Istituto Nazionale di Oceanografia e di Geofisica Sperimentale (OGS), Italy

Agricultural University of Tirana, Faculty of Agriculture and Environment (AUT), Albania

Directorate of Environment and Spatial Planning, Department of Water Economy, Region of Western Greece (RGW), Greece

Hellenic Centre for Marine Research, Institute of Oceanography (HCMR), Greece

Institute of Oceanography and Fisheries (IOF), Croatia

Italian National Institute for Environmental Protection and Research (ISPRA), Italy

National Institute of Biology, Marine Biology Station Piran (NIB), Slovenia

Public Institution University of Montenegro - Institute of Marine Biology (UoM-IMBK), Montenegro

Ruder Boskovic Institute, Centre for Marine Research (RBI), Croatia

Slovenian Environment Agency, State of the Environment Office (ARSO), Slovenia



REGION  
OF WESTERN  
GREECE  
*Full of contrast!*



ARSO ENVIRONMENT  
Slovenian Environment Agency



This document has been produced within the framework of the 'HarmoNIA project' – ADRIION 340, funded under the European Regional Development Fund and IPA II fund. This publication has been produced with the financial assistance of the European Union. The content of the publication, is the sole responsibility of beneficiaries of the project and can under no circumstances be regarded as reflecting the position of the European Union and/or ADRIION programme authorities.