



Interreg 
ADRION **ADRIATIC-IONIAN**
 European Regional Development Fund - Instrument for Pre-Accession II Fund

HarmoNIA




From good data to good decisions: knowledge sharing for harmonized policies on contamination issues in the ADRION seas.

From monitoring to risk assessment

Marina Lipizer & HarmoNIA partnership



ARSO ENVIRONMENT
 Slovenian Environment Agency



REGION OF WESTERN GREECE
 full of contrast!



HarmoNIA Stakeholder workshop - 15.5.2020

The importance of sharing data, information
and best practices has never been more
evident than today

HarmoNIA has dedicate efforts, at ADRION scale, to:

- ❖ share data
- ❖ Information
- ❖ best practices

for monitoring, assessing and managing pollutants in the
marine environment



Financed by Interreg ADRION Programme
 SPECIFIC OBJECTIVE 2.2

ENHANCE THE CAPACITY IN TRANSNATIONALLY TACKLING ENVIRONMENTAL VULNERABILITY, FRAGMENTATION, AND SAFEGUARDING ECOSYSTEM SERVICES IN THE ADRION AREA

Who we are:

Partnership

- National Institute for Oceanography and Applied Geophysics (OGS) - *Italy*
- Italian National Institute for Environmental Protection and Research (ISPRA) - *Italy*
- Institute of Oceanography and Fisheries (IOF) - *Croatia*
- Ruder Boskovic Institute (RBI) - *Croatia*
- Hellenic Centre for Marine Research (HCMR) - *Greece*
- Region of Western Greece (RWG) - *Greece*
- National Institute of Biology (NIB) - *Slovenia*
- Slovenian Environment Agency - (ARSO) - *Slovenia*
- Public institution University of Montenegro - Institute of Marine Biology (UoM-IMB) - *Montenegro*
- Agriculture University of Tirana - Department of Plant Protection (AUT) - *Albania*



Associated Partners

- Ministry of Economic Development Directorate General for the Safety Also Environmental of Mining and Energy Activities National Mining Office for Hydrocarbons and Georesources - *Italy*
- Durres Municipality - *Albania*
- Ministry of Sustainable Development and Tourism - *Montenegro*
- Ministry of Environmental and Nature Protection - *Croatia*

Challenges in the ADRION region:

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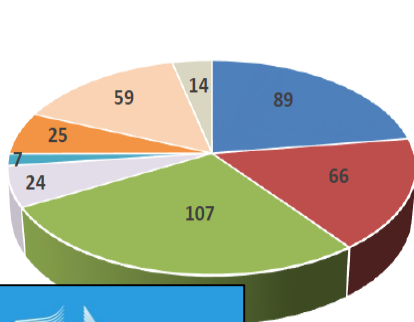
- ➔ Hot spot of biodiversity - great environmental importance
- ➔ Marine socio- economic activities rely on **Good Ecosystem Status** (but may threaten GES)



From: 2017 Mediterranean Quality Status Report, UNEP/MAP
 Regional mercury assessment in sediments

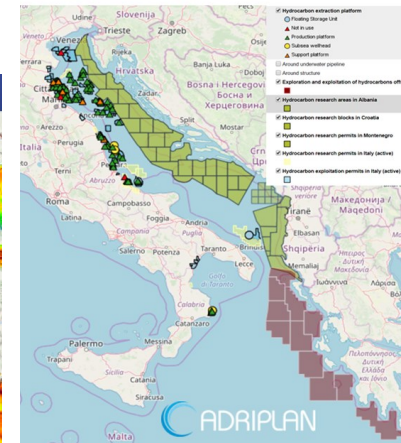


- ➔ Pollution in the ADRION area is a key issue



- Shipping
- Mariculture
- Offshore gas/oil activities
- Offshore renewable energy devices
- Seabed mining
- Dredging/dumping of dredged material
- Historical dumping sites
- Shipwrecks

Oil & gas concessions and platforms





Marine pollution. What do we mean?

→ Chemical pollutants

(heavy metals, hydrocarbons, pesticides/biocides, PCBs, DDTs, pharmaceuticals,... often *invisible* pollution)



Are the Adriatic - Ionian Seas polluted?

→ Legislative instruments indicate **how** to assess pollution (what to measure, how, where, when)

EU Marine Strategy Framework Directive (MSFD)

Not using exactly the




→ Harmonized assessment not so trivial!

HarmonIA overall objective:




... to address the heterogeneity in **methodological approaches** (sampling -> analysis -> assessment), to overcome the **fragmentation** in **data** availability on contaminants and to propose an approach for contaminant dispersion **risk assessment**.

Contribution to wider strategies & policies:




EU Strategy for the Adriatic and Ionian Region
EUSAIR

“Environmental quality” - Establishment of a common platform of all countries for data collection, research and analysis



- ❖ Marine Strategy Framework
- ❖ Maritime Spatial Planning
- ❖ Protocols of the Barcelona Convention against pollution



2021-2030 United Nations Decade of Ocean Science for Sustainable Development

- ❖ **A clean ocean:** whereby sources of pollution are identified, quantified and reduced...
- ❖ **A safe ocean:** whereby human communities are protected from ocean hazards and where the safety of operations at sea and on the coast is ensured
- ❖ **A transparent and accessible ocean:** whereby all nations, stakeholders and citizens have access to ocean data and information, technologies and have the capacities to inform their decisions

HarmoNIA approach:



- ❑ Establish an Adriatic - Ionian **network** of agencies and institutes in charge of the assessment of marine contaminants
- ❑ Define **best practices** to tackle monitoring, assessment and evaluation of impacts due to contamination
- ❑ Collect and make accessible through a common and already available infrastructure regional **datasets** of contaminants for the Adriatic - Ionian region
- ❑ Propose a **regional strategy** for a shared and harmonized evaluation of the risk due to contaminant dispersion from different sources of pollution.

Network of institutions

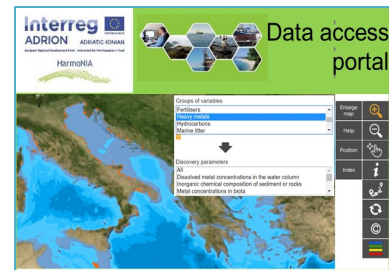


Adopting:

Shared analytical protocols



Common data infrastructure



Shared assessment procedures



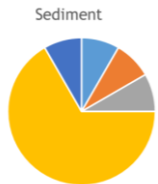
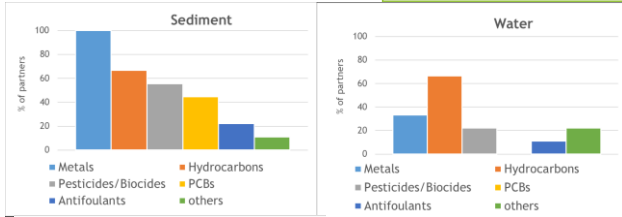
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- ☐ Sharing best practices to support the harmonized implementation of marine environmental directives in the ADRION region

Considering heterogeneity in:

1. Transnational analysis of protocols/methodologies used to determine specific marine contaminants
2. Best practices for harmonized sampling/analytical/data Quality Control procedures
3. Best practices towards transnational transfer of **Environmental Impact Assessment** protocols for offshore activities
4. Best practices towards transnational harmonization of protocols for **impact** of offshore platforms
5. Share **decommissioning** procedures



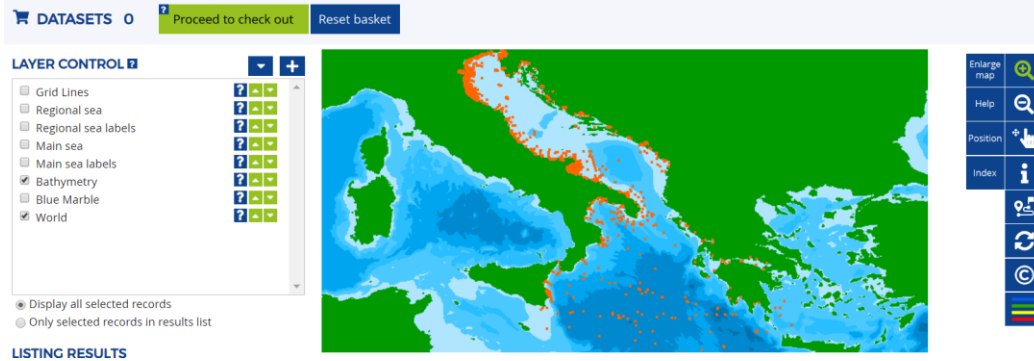
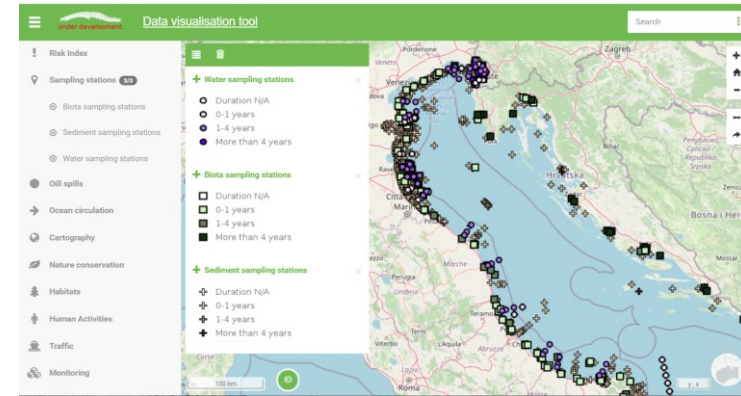


HarmonIA outputs: Data infrastructure - Network

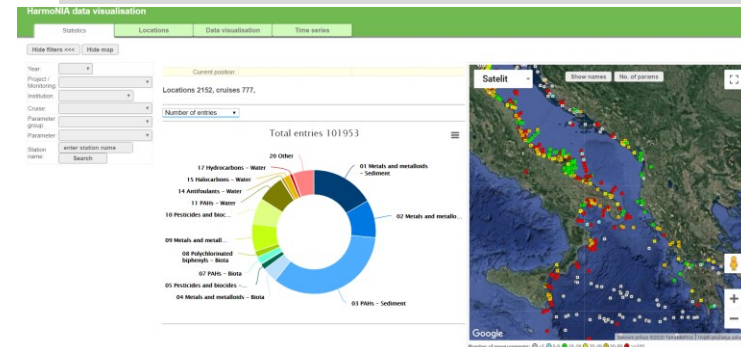
To facilitate access and re-use of marine data

Based on long-consolidated EU initiatives (SeaDataNet, EMODNet):

Provide easy access to metadata:



... and to data visualizations:

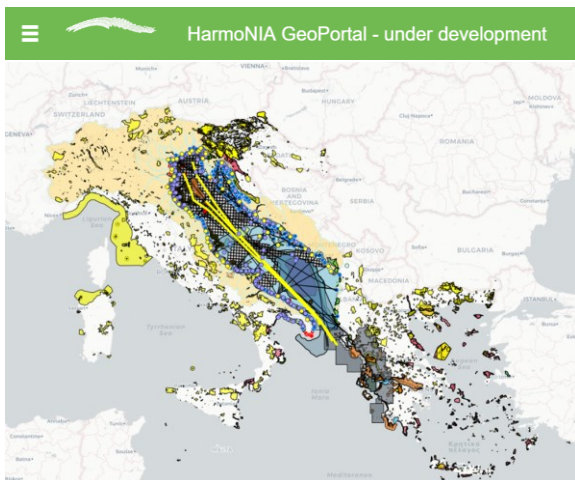




HarmoNIA outputs: Risk assessment - Strategy

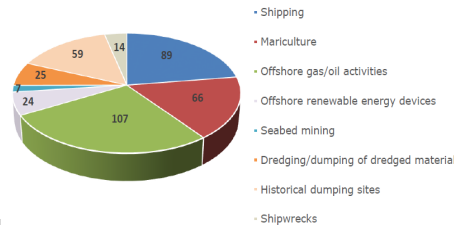
□ Supporting a coordinated **approach** of pollution management and in case of pollution accidents and defining a **common strategy** to assess contaminant dispersion risk along the coast

- Where the main sources of **pollution** are
- Collection of relevant information for the ADRION area to define **vulnerability** index along the coast and to define case study areas
- Organization of information in a GeoPortal - ongoing process (data-metadata)

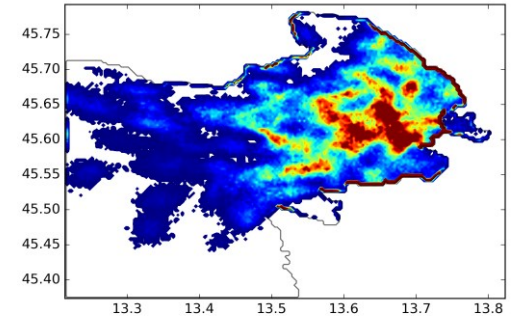


➤ Use **hydrodynamic modelling** to predict contaminant dispersion in typical situations and in case study areas

➤ Evaluate **vulnerable** marine and coastal areas



Oil spill simulation



➤ Evaluate the **probability** of the distribution of contaminants

➤ Propose a **methodology** for assessing risk index of contaminant dispersion and results in case study areas

HarmoNIA outcomes:

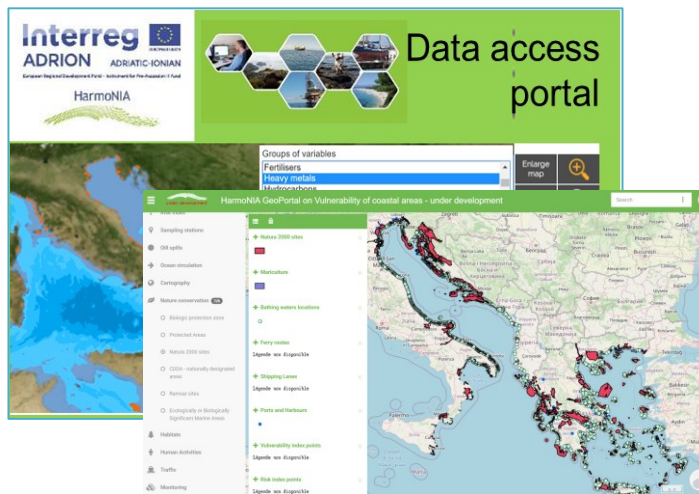
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Shared analytical protocols



- Guidelines
- Strategy for Harmonized monitoring!

Common data infrastructure



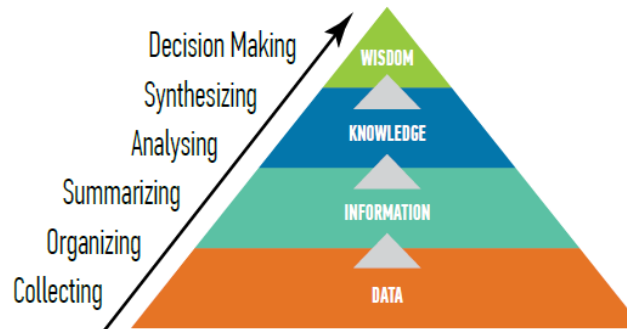
- Accessible data and information!
- Network for data-info sharing

Shared information and assessment procedures



- Knowledge for decision taking
- Strategy on risk assessment

From **good monitoring data** to **good decision making**



To better fit ADRION needs:



☐ Sharing HarmonIA: stakeholder workshops, questionnaires, public engagement, videos

1st Workshop: Athens, April 2018

Setting the scene

2nd Workshop: Split, February 2019
 The offshore challenge

EU Researchers' **Night** 2018 & 2019

3rd Workshop: Patras, October 2019
 HarmonIA first results



Objectives:

- ☐ Share knowledge on procedures for monitoring, EIA, decommissioning
- ☐ Help identify possible additional/missing information and data
- ☐ Collect feedbacks to “tune” activities
- ☐ Share needs which can be approached by HarmonIA

❖ Raise people awareness: make people think about pollution (not just plastic!), sources of pollution, polluting activities

Videos:

Ongoing:

Series of HarmonIA videoconferences to share what we have done



What we wish for today:

- ❖ Share HarmoNIA outputs and tools
- ❖ Share information at ADRION scale to face marine pollution: from monitoring to risk assessment
- ❖ Increase knowledge on needs and gaps for a sustainable management of the marine environment
- ❖ Strengthen science - policy dialogue



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Thanks you for your attention!

More information available on:

<https://harmonia.adrioninterreg.eu/>

HarmoNIA video:

<https://www.youtube.com/watch?v=FNOwRyXn9Ps>

HarmoNIA pamphlet:



HarmoNIA on facebook:

https://www.facebook.com/HarmoNIA-project-2034499366872633/?ref=aymt_homepage_panel&eid=ARDaeoqtGoJRY_IHhbG1QgGwTgOEPxFhj9df64METOaHk8KDEwwl2XE6NfrkgEx85fJRsgq4TnDrCW