



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

HarmoNIA: challenges, objectives and work done so far

Marina Lipizer and HarmoNIA partnership



HarmoNIA 2nd Stakeholder Workshop, February 7, 2019 - Split, Croatia



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

Project duration: 1.2.2018 - 30.11.2019

HarmonIA Partnership:
10 Project Partners
4 Associated Partners



Lead Partner: National Institute for Oceanography and Applied Geophysics (OGS) - Trieste, Italy

Contact: Marina Lipizer, mlipizer@inogs.it

Challenges in the ADRION region:

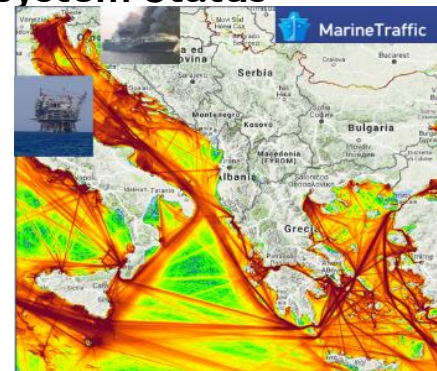
- ➔ The ADRION area is a hot spot of biodiversity and hosts habitats and communities of great environmental importance
- ➔ Marine socio- economic activities rely on **Good Ecosystem Status**
- ➔ Pollution in the ADRION area is a key issue

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

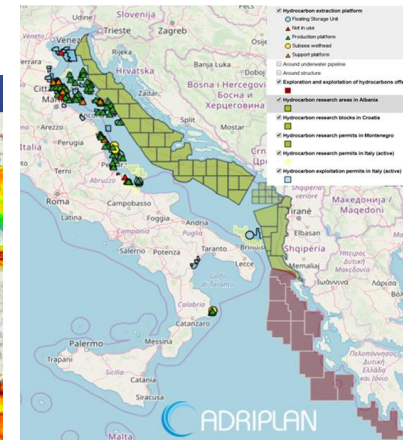


➔ The area is intensively used now (and in the future?)

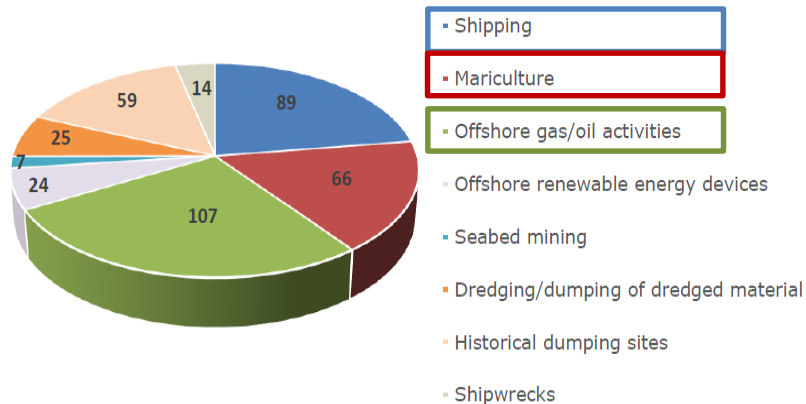
➔ Several maritime activities may threaten **Good Ecosystem Status**



Oil & gas concessions and platforms



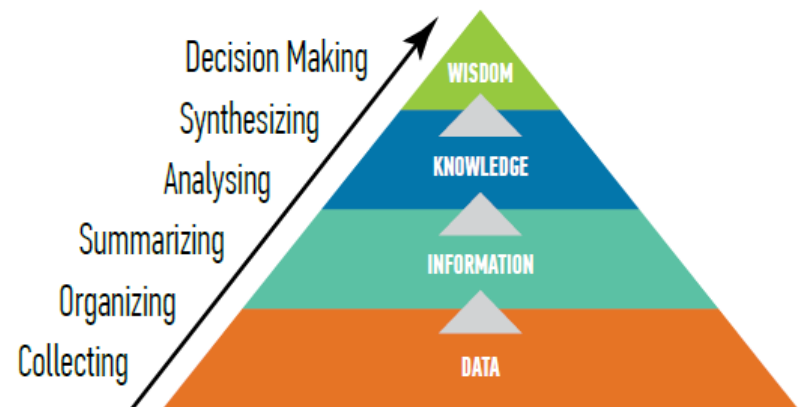
Main sea-based sources of contaminants:*



*From: Tornero V. and Hanke G. 2016 Identification of marine chemical contaminants released from sea-based sources: A review focusing on regulatory aspects. Publications Office of the European Union; 2016. JRC102452

Challenges:

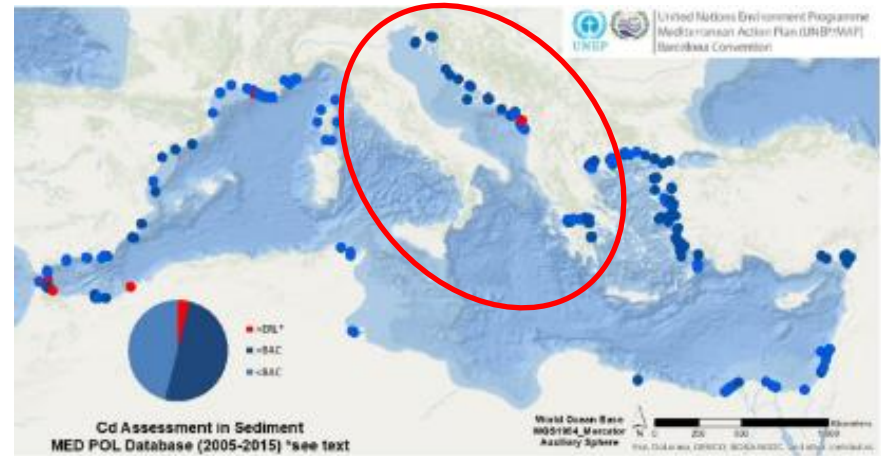
- ➔ Sustainable use of our common seas
- ➔ Need of **data** and information for decision making
- ➔ Good Environmental Status (GES) assessment: wide **heterogeneity** of information used for MSFD reporting
- ➔ Scarcity of data availability



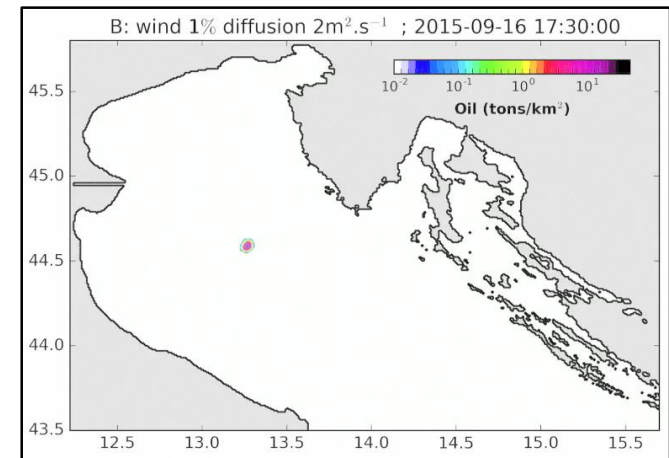
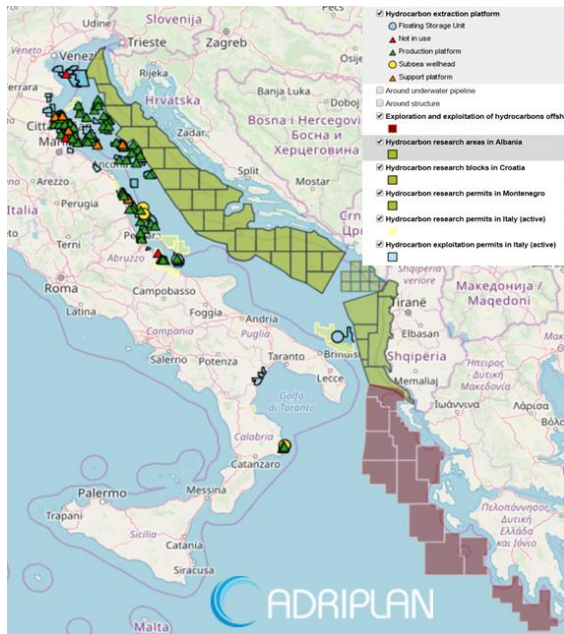
Gaps:

Transnational **shared approach** to evaluate impact of offshore activities: monitoring procedures, legal aspects, technical guidelines,...
Oil & gas concessions and platforms

Data
availability
for GES



Harmonized approach to evaluate **contaminant dispersion** from offshore activities and accidents



HarmonIA overall objective:

... to address the heterogeneity in **methodological approaches** and in the information used for Good Environmental Status **assessment** (GES, *sensu* MSFD), to overcome the **fragmentation** in geographical coverage of **data** availability on contaminants and to **propose** an approach for contaminant dispersion **risk assessment**.

Specific objectives:

- ❑ to share **best practices** to support the **harmonized** implementation of marine environmental directives in the ADRIATIC-IONIAN region
- ❑ to strengthen the network of **data infrastructures** to facilitate access and re-use of marine data among countries bordering the Adriatic - Ionian Seas
- ❑ to support a coordinated approach in case of pollution accidents and define a **common strategy** to assess contaminant dispersion risk along the coast

Contribution to wider strategies & policies:



- ❑ Marine Strategy Framework Directive (MSFD, EU 2008)
- ❑ Protocols of the Barcelona Convention against pollution
 - ...
 - Offshore Protocol (pollution from exploration and exploitation)
 - ...
 - Protocol on Integrated Coastal Zone Management (ICZM)
- ❑ Maritime Spatial Planning (MSP, 2014)

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



What we have done so far:

- ❑ Sharing best practices to support the harmonized implementation of marine environmental directives in the ADRIAN region

1. Transnational analysis of protocols/methodologies used to determine specific marine **contaminants**



2. Best practices for **harmonized** sampling/analytical/data Quality Control procedures



Next steps:

3. Best practices towards transnational harmonization of **Environmental Impact Assessment (EIA)** protocols for offshore activities

4. Best practices towards transnational harmonization of protocols for **monitoring the impact** of offshore **platforms**

5. Share **decommissioning** procedures



Protocol Review
 Deliverable T1.1.1

Work Package T1 - Sharing best practices for transnational harmonization for EQSD implementation and link with UNEP/MAP MEDPOL Program and Offshore Protocol of Barcelona Convention

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Contributors:
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July 2018, review January 2019

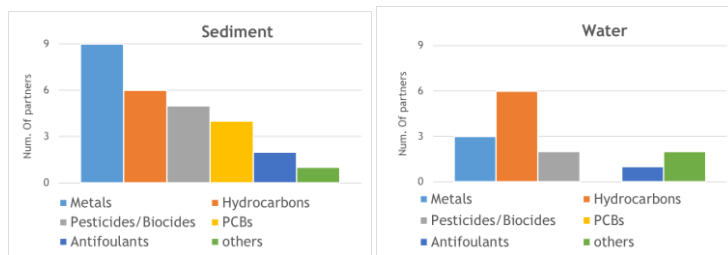
What we have done so far:

- ☐ Strengthening the **network of data infrastructures** to facilitate access and re-use of marine data

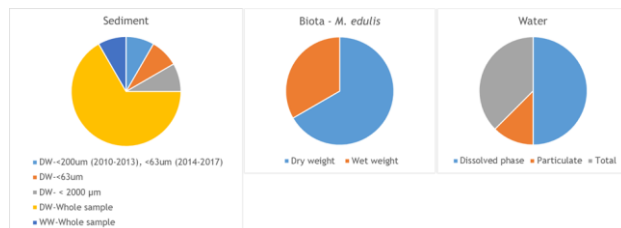
1. Sharing knowledge and tools to collect, manage and give access to marine data

2. Analysis of data collected within HarmonIA to underline heterogeneity and need of harmonization

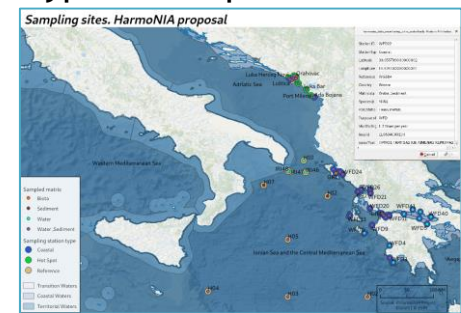
Parameters measured:



Matrix heterogeneity:

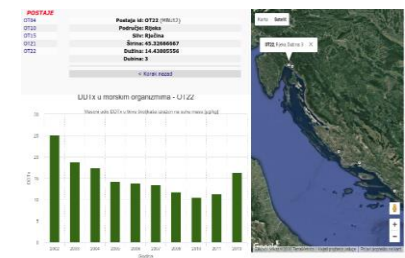


3. Review of information requirements for added-value data visualization. Prototype development



Next steps:

4. Make data **accessible** on a common infrastructure and provide **user-friendly** visualization of trends and compliance with legislation of marine contaminants

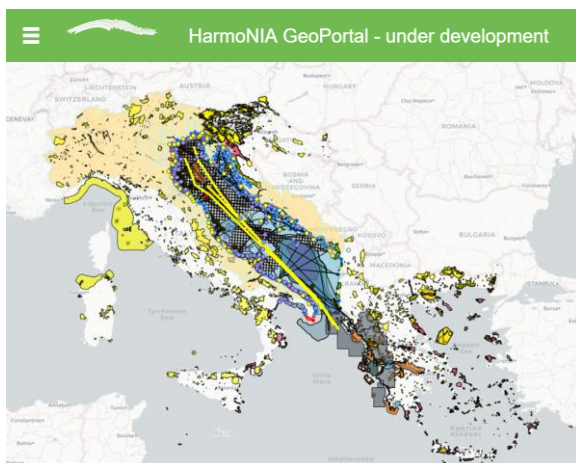


What we have done so far:

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

1. Collection of relevant information for the ADRION area to define vulnerability index along the coast and to define case study areas

2. Organization of information in a GeoPortal - under development



Next steps:

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

4. Evaluate **vulnerable** marine and coastal areas

5. Evaluate the **probability** of the distribution of contaminants

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

What we have done so far:

☐ Meeting HarmonIA: stakeholder workshops and questionnaires



1st Workshop: Athens, April 2018
 Setting the scene



2nd Workshop: Split, February 2019
 The offshore challenge



Next steps:

3rd Workshop: Patras, September 2019
 HarmonIA first results



4th Workshop: Trieste, March 2020
 HarmonIA achievements



Objectives:

- Increase knowledge on procedures for monitoring, EIA, impact assessment
- Increase knowledge on data availability
- Increase knowledge on contaminant dispersion risks in the area
- Influence attitude of managers and planners of the marine environment

Needs from stakeholders:

- Help identify possible additional/missing information and data
- Provide feedbacks to “tune” activities
- Share needs which can be approached by HarmonIA
- Use HarmonIA results (eg. Data, best practices, methodologies,...)

HarmonIA challenges in synthesis:

- ❑ From **good monitoring** data to **good decision** making
- ❑ Harmonize monitoring protocols for **reliable assessment** of Good Environmental Status.
- ❑ Towards a **common strategy** to assess contaminant dispersion risk
- ❑ Best practices to support a **sustainable use** of the sea: the offshore challenge





More information available on:

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

HarmoNIA Geoportal:

<http://jadran.izor.hr/harmonia/#>

HarmoNIA video:

<https://www.youtube.com/watch?v=P1q4PRy5O6o&t=34s>

First HarmoNIA questionnaire:

https://docs.google.com/forms/d/e/1FAIpQLSdV6z-fO2zxej2F7g8_gP5_NWCKOAdVy5fXNambKaUmcAeuKg/viewform

HarmoNIA on facebook:

https://www.facebook.com/HarmoNIA-project-2034499366872633/?ref=aymt_homepage_panel&eid=ARDaeoqtGoJRY_IHhbG1QgGwTgOEPxFhj9df64METOaHk8KDEwwl2XE6NfrkgEx85fJRsqgq4TnDrCW





Thank you for your attention!



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

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