



HarmoNization and NetwOrking for contaminant assessment in the Ionian and Adriatic Seas

Offshore challenge: Adriatic-Ionian regulation/monitoring

ISPRA

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Adriatic-Ionian regulation

- **MSFD - EU Marine Strategy Framework Directive** of 17 June 2008 establishing a framework with the aim to:

*achieve or maintain **good environmental status** in the marine environment by the year 2020 at the latest*

- **EIA – EU Environmental Impact Assessment Procedure** last amended 16 april 2014 on *the assessment of the effects of certain public and private projects on the environment*
- **IMAP - Integrated Monitoring and Assessment Programme of the Med Sea** to deliver inside the UNEP/MAP Barcelona Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean aim to:

assess the status of the Mediterranean sea and coast, as a basis for further and/or strengthened measures.

- **Offshore Protocol** (adopted in 1994), entered into force in 2011 for the Protection of the Mediterranean Sea

against Pollution Resulting from Exploration and Exploitation of the Continental Shelf and the Seabed and its Subsoil

- **ICZM protocol** on Integrated Coastal Zone Management in the Mediterranean (adopted in 2008) aim to:

facilitate, through the rational planning of activities, the sustainable development of coastal zones

MSFD: regions and subregions



- **Regional cooperation:** Member States shall, within each marine region or subregion, **make every effort**, using relevant international forums, **including mechanisms and structures of Regional Sea Conventions, to coordinate their actions** with third countries having sovereignty or jurisdiction over waters in the same marine region or subregion.

Adriatic-Ionian monitoring and assessment

MSFD	EIA	IMAP	Offshore	ICZM
<p>D8: Concentrations of contaminants are at levels not giving rise to pollution effects</p> <p>D8C1 <i>Within coastal and territorial waters, the concentrations of contaminants do not exceed threshold values</i></p> <p>D8C2 — <i>The health of species and the condition of habitats are not adversely affected due to contaminants</i></p> <p>D8C3 — <i>The spatial extent and duration of significant acute pollution events are minimised</i></p> <p>D8C4 — <i>(when a significant acute pollution event has occurred): The adverse effects of significant acute pollution events are minimised and, where possible, eliminated.</i></p>	<p>Regulation of the authorization process</p> <p>Impact assessment and cost-benefit analysis</p> <p>Risk analysis and contingency plans</p> <p>Impact assessment criteria and monitoring programme ante operam and post operam</p>	<p>Common indicator 17. Concentration of key harmful contaminants measured in the relevant matrix (related to biota, sediment, seawater);</p> <p>Common indicator 18. Level of pollution effects of key contaminants where a cause and effect relationship has been established</p> <p>Common indicator 19. Occurrence, origin (where possible), and extent of acute pollution events (e.g. slicks from oil, oil products and hazardous substances) and their impact on biota affected by this pollution</p>	<p>Requirements for and granting of authorization</p> <p>Discharge and disposal of harmful and noxious substances and materials</p> <p>Oil and related products disposal</p> <p>Sewage and garbage disposal</p> <p>Safety measures and contingency plan</p>	<p>Protection and sustainable use of coastal zone establish in coastal zones, a zone where construction is not allowed. (100-300 mt)</p> <p>Sustainable development for all coastal and marine activities affecting coastal ecosystems</p> <p>Monitoring systems and raising awareness campaign</p> <p>Coastal strategies, plans and programme to improve governance</p>

Adriatic-Ionian regulation and monitoring vs DPSIR paradigm

Driver	Pressure	State	Impact	Response
	MSFD			
EIA				
	IMAP			
Offshore				
ICZM				

WP 1

Work done

WP: 1	Deliverable:	Partner participation
T1.1.1	Protocol review	x
T1.1.2	Methodological proposal for harmonized sampling procedure, analytical methodologies	x
T1.1.3	Methodological proposal for data Quality Control procedures (QA/QC)	x
T1.2.1	Methodological proposal for transnational harmonization of environmental impact assessment (EIA) of offshore platform installation procedure	x
T1.2.2	Methodological proposal for transnational harmonization of discharge of produced formation water, PFW of offshore platform impact assessment	x
T1.3.1	Methodological proposal for transnational harmonization of monitoring impacts due to offshore platforms	x
T1.3.2	Protocol review for the decommissioning of offshore platforms	x

- Sharing of a QA/QC questionnaire with 7 Labs
- ISPRA QA/QC data originate from two different sources:
 - Offshore platform monitoring
 - MSFD/WFD monitoring
- Review/comparison of QA/QC elements and methods of sampling/analysis
 - Draft proposal of harmonization
- Sharing of Questionnaires for EIA, Monitoring & Decommissioning of offshore platforms based on ISPRA EIA experience on monitoring and Italian legislation

Harmonia WP 1 – T.1.1.1 Protocol review information required for a selected list of contaminants

Seawater	Sediment	Biota
Sample type (total, dissolved or particulate phase)	Grain size (Unsieved; <63um;<2mm)	Dry weight or wet weight (specify)
Sampling method (ex: no filtration; filtration 0,2; 0,45; 0,7µm); Filter type (GF/F, etc...)	Sampling method (type of sampler, ex: box corer)	Species (ex: <i>Mytilus galloprovincialis</i> , etc..)
	Thickness of sampled sediment (cm)	Tissue (ex: muscle, liver, etc...)
		Number of replicates (1,2,3)
Storage (ex: method, temperature, addition of preservative etc..)	Storage (ex: method, temperature , etc...)	Storage (ex: method, temperature, etc..)
Method of Analysis	Method of Analysis	Method of Analysis
Limit of detection (LOD)	Limit of detection (LOD)	Limit of detection (LOD)
Limit of quantification (LOQ)	Limit of quantification (LOQ)	Limit of quantification (LOQ)
Reference Materials (ex: NRC-CNRC, etc..)	Reference Materials (ex: NRC-CNRC, etc...)	Reference Materials (ex: NRC-CNRC, etc.)
Intercalibration round (ex: Quasimeme, etc..)	Intercalibration round (ex: Quasimeme, etc..)	Intercalibration round (ex: Quasimeme, etc.)
Accuracy (% wrt certified value)	Accuracy (% wrt certified value)	Accuracy (% wrt certified value)
Reproducibility (RSD %)	Reproducibility (RSD %)	Reproducibility (RSD %)
Remarks	Remarks	Remarks

Harmonia WP 1 – Protocol review

Questionnaire received from:

- HCMR (Greece)
- RBI (Croatia)
- UOM–IMBK (Montenegro)
- ARSO (Slovenia)
- AUT (Albania)
- CETI (Montenegro)
- ISPRA (Italy)
- NIB (Slovenia)
- IOF (Croatia)

Main issues:

- Water
 - Dissolved versus total
- Sediment
 - Grain size <63um or < 2mm or unsieved
 - Thickness 5 cm, 10 cm,...
 - Sampler, box corer, grab
- Biota
 - Size
 - Number of replicates
- LOD/LOQ order of magnitude differences
- Certified Reference Materials not always used
- Accuracy & Reproducibility very poor info
- Intercalibration participation almost there

HarmoNIA WP 1 – EIA questionnaire and decommissioning

Legislative

Transposition of EU EIA Directive or analogous national legislation instruments

T1.2 Objective

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

Regulatory

National guidelines for EIA procedure and identification of bodies responsible for authorization, monitoring and assessment

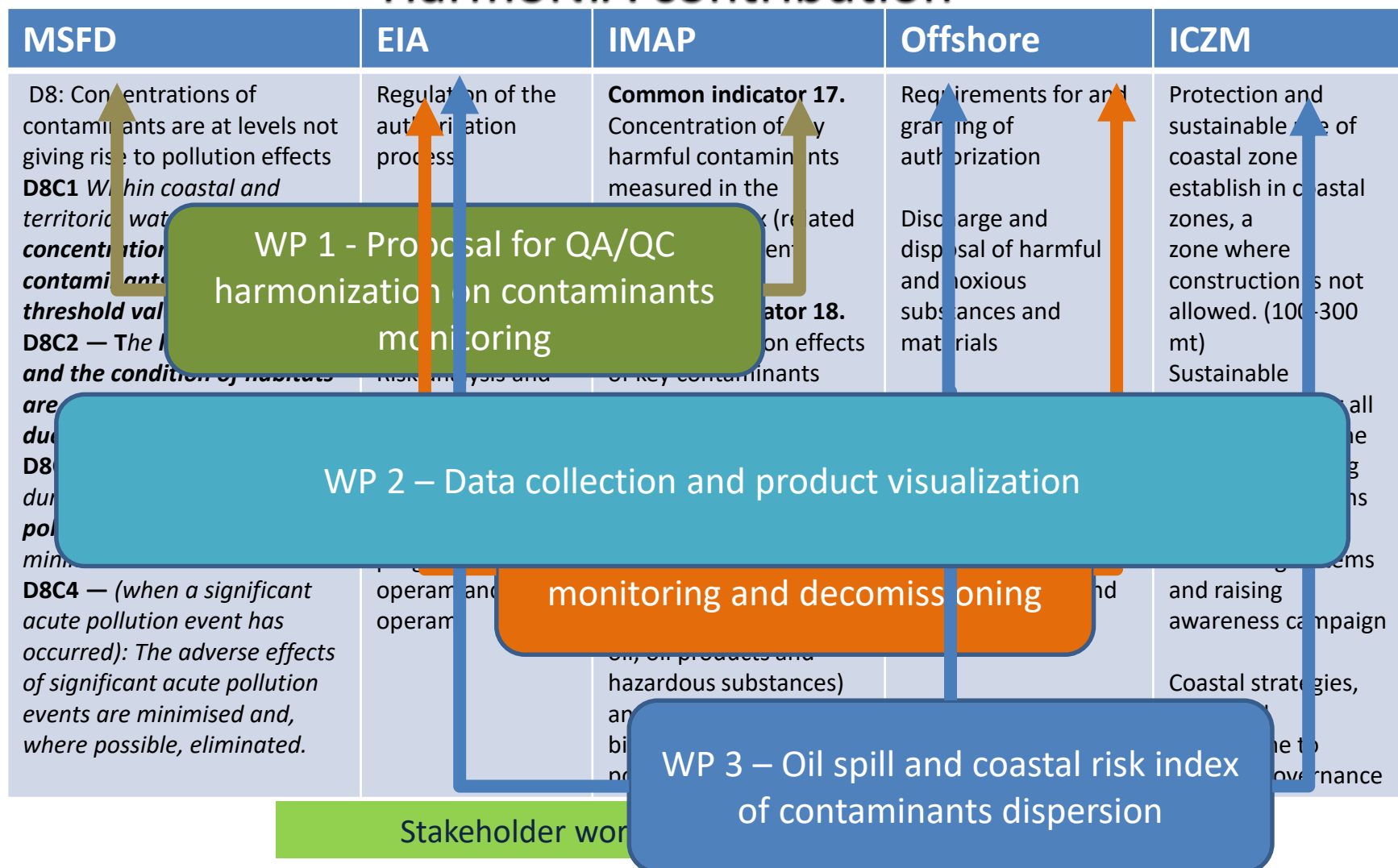
T1.3 Objective

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

Monitoring

Monitoring protocols on parameters, sampling methods, spatial and temporal frequencies

Harmonia contribution





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



HarmoNIA



Thank you for your attention!



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