



Deliverable D3.9
BEST PRACTICES DATABASE
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**Action Plans for Integrated Regional
Monitoring Programmes, Coordinated
Programmes of Measures and Addressing Data
and Knowledge Gaps in Mediterranean Sea**

ActionMed

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Coordinator

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EXECUTIVE SUMMARY

One of the main aims of the ActionMed project was to facilitate Member States in the definition of their programmes of measures (PoMs) for establishing and maintaining Good Environmental Status (GES) in Mediterranean Sea, focusing specifically on measures for Descriptors 5 (eutrophication), 8 (contaminants), 9 (contaminants in seafood) and 10 (marine litter).

Through ActionMed, Mediterranean Member States were supported in the elaboration of possible measures, at national and regional level, via the implementation of the dedicatedly developed DeCyDe-4-ActionMed method and toolbox, in a series of national and sub-regional workshops. Specifically, two sub-regional workshops and one national workshop were implemented over the duration of the ActionMed project. The detailed methodologies and tools implemented at each of the three workshops, as well as the main outcomes and outputs have been presented in Deliverables 3.4(a), 3.4(b) and 3.4(c). An evaluation of the attributes of the measures is available in Deliverable 3.6.

The current report, together with the accompanying Appendices B and C (separate files) form the ActionMed Best Practice Database. Using the measures selected by the stakeholders at each of the workshops as inspiration, the Best Practice Database identifies 15 similar initiatives implemented successfully around Europe. The aim is to showcase success and fail factors, as well as lessons learned, so as to assist in the implementation of similar practices in the project countries, and more widely.

INTRODUCTION

One of the main aims of the ActionMed project is to facilitate Member States in the definition of their programmes of measures (PoMs) for establishing and maintaining Good Environmental Status (GES) in Mediterranean European Sea. This will be achieved through the work of Activity 3 entitled ‘Assistance in the preparation of programmes of measures, by addressing particular gaps identified both at national and regional level, linking together work on programmes of measures under the MSFD and under the auspices of UNEP/MAP Barcelona Convention (the PoMs activity)’. To this end, Activity 3 aimed to undertake: (i) the assessment of common gaps in national or regional measures and the selection of issues that require action to achieve or maintain GES, (ii) the elaboration of possible measures at national and regional level, (iii) the socio-economic analysis of the proposed measures, and (iv) the dissemination of recommendations.

The elaboration of possible measures at national and regional level was achieved through the implementation of the dedicatedly developed DeCyDe-4-ActionMed method and toolbox. DeCyDe-4-ActionMed aimed to encourage the active participation of stakeholders and decision-makers in the definition of Programmes of Measures for Descriptors 5 (eutrophication), 8 (contaminants), 9 (contaminants in seafood) and 10 (marine litter), and the identification of possible common measures for implementation at a sub-regional level. This was achieved through three participatory workshops, as follows:

- Adriatic Sub-regional Workshop (04 July 2016, Piran, Slovenia) bringing together stakeholders from Croatia, Italy and Slovenia to discuss possible common measures for descriptors 5, 8, 9 and 10, for implementation in the Adriatic sub-region.
- Greek national workshop (12 October 2016, Athens, Greece) bringing together Greek experts and decision/policy-makers to identify possible measures that could be included in the Greek Programme of Measures, to address descriptors 5, 8, 9 and 10.
- Mediterranean sub-regional workshop (03 November 2016, Nicosia, Cyprus) bringing together experts and decision-makers from Cyprus, Greece and Malta to discuss possible common measures for descriptors 5, 8, 9 and 10, for implementation in the Mediterranean sub-region.

The detailed methodologies and tools implemented at each of the three workshops above, as well as the main outcomes and outputs are presented in the following three deliverables:

- Orthodoxou, D., Loizidou, X.I., Loizides, M.I. (2016). ActionMed Deliverable D3.4(a): Report from the Adriatic Sub-regional PoM Decision-making Workshop: Towards common Measures for Good Environmental Status in the Adriatic Sub-region, October 2016, 19p.
- Orthodoxou, D., Loizidou, X.I., Loizides, M.I., Petsa, D. (2016). ActionMed Deliverable D3.4(b): Report from the Greek National Stakeholder Workshop: Towards the definition of Programmes of Measures for achieving GES for Greece, October 2016, 57p.

- Orthodoxou, D., Loizidou, X.I., Loizides, M.I. (2016). ActionMed Deliverable 3.4(c): Report from the Mediterranean Sub-Regional Stakeholder Workshop: Towards Common Measures for Good Environmental Status in Cyprus, Greece and Malta, November 2016, 25p.

Each of these reports presents the list of measures (or common measures in the case of deliverables 3.4(a) and 3.4(c)), agreed upon by the participants, and ranked according to predefined criteria.

The top measures deriving from the three workshops were evaluated in terms of their attributes, their similarities and differences in the ActionMed Deliverable 3.6 “Evaluation of suggested measures and major attributes for successful implementation”.

The present report relates to Deliverable 3.9, the Best Practice Database. Using the measures selected by the stakeholders at each of the workshops as inspiration, the Best Practice Database identifies similar initiatives implemented successfully around Europe. The aim is to showcase success and fail factors, as well as lessons learned, so as to assist in the implementation of similar practices in the project countries, and more widely.

IDENTIFYING BEST PRACTICES

The evaluation of the top measures from each workshop highlighted three issues that could affect the database development:

1. Some measures could be used to address more than one descriptor.
2. Some measures appeared in more than one workshop.
3. Not all the measures resulting from the workshops had been/are being implemented in the participating countries - many were proposed, new measures or suggested improvements to existing measures. The implication for this is that there was not always a concrete example that could be included in the best practice database, deriving directly from the workshop-suggested measures.

To address the first two issues, the authors undertook a simple exercise, whereby the proposed measures were grouped according to their overarching theme (e.g. whether they related to wastewater management, ship waste management etc.) and all relevant measures, irrespective of the workshop that they derived from or the descriptor they related to, were included as sub-measures of this theme. Table 1 shows the results of this grouping exercise. It should be noted that measures relating to data management and monitoring were excluded from this grouping/categorisation exercise, as such measures relate more to the Monitoring Programmes of the MSFD, rather than to the Programmes of Measures.

To address the third, and perhaps most important issue, the following steps were taken by the authors:

1. A template (see Appendix 1) was developed and circulated to the project partners, asking them to complete it with any best practices that they are aware of from their own countries. The aim was to include as many best practices as possible from the countries that had participated both in the project and at the workshops. The template was developed in such a way, so as to ensure that the main information was captured and that the attributes that make an initiative a best practice would be highlighted.
2. Key stakeholders were contacted directly in order to capture relevant information on best practices that the authors knew were being/are being implemented in Europe.
3. A desk-based review was undertaken, in order to identify best practices from around Europe.

In this manner, best practices corresponding either to the broad or the more detailed initiative themes that appear in Table 1 were identified and included in the database.

Table 1: Top measures deriving from the three workshops, grouped according to their overarching theme.

1.	Measures related to municipal wastewater management:
a.	Update sewerage network to minimize losses from leaks
b.	Completion of wastewater installation works for settlements falling under the provisions of Directive 91/271/EC, and intensification of checks of the effective operation of wastewater treatment plants
c.	Connect all communities with over 5000 residents to municipal wastewater treatment plants (current mandatory limit is 15000 residents)
d.	Intensify checks of the effective operation of wastewater treatment plants to significantly reduce the concentrations of Eutrophication contaminants from wastewater outfalls
e.	Upgrade of municipal wastewater treatment plants and construction of new ones where necessary
2.	Measures related to the agricultural sector:
a.	Awareness-raising for the agricultural sector (e.g. best practices, code of conduct, information about conversion to organic farming) to reduce nutrient loading, especially in nitrate sensitive areas.
b.	Set a fertilizer quota in riverine catchment areas
c.	Delimitation of further nitrate vulnerable zones based on the assessment of the chemical conditions of water bodies, drawing up action plans based on crop type, and development of methods/tools for the rational use of fertilizers and water in nitrate vulnerable zones.
d.	Engagement and awareness raising in the agricultural sector.
3.	Measures related to the shipping industry/vessels:
a.	Banning of shipping/vessel discharges and provision/upgrade of port reception facilities.
b.	Completion of the necessary infrastructure at all port installations to ensure the safe reception of ship wastewater or oily residues and other wastes
c.	Vessel waste management, specifically liquid discharges from the shipping and fishing industries, through banning of shipping/vessel discharges and the provision/upgrade of port reception facilities.
d.	Completion of the necessary infrastructure at all port installations (port reception facilities) to ensure the safe reception of ship wastewater or oily residues and other wastes to avoid pollution of the sea
e.	Enhance control and enforcement under MARPOL (International Convention for the Prevention of Pollution from Ships)
4.	Measures related to aquaculture:
a.	Provide tax exemptions to aquaculture businesses that invest in optimized feeding systems.
5.	Measures related to seafood quality:
a.	Establishment of seafood quality standards
6.	Measures related to offshore activities:
a.	Accident management plans for offshore activities (shipping, hydrocarbon explorations and exploitation)
b.	Regulation of hydrocarbon exploration and extraction activities by Strategic Impact Assessments and Environmental Impact Assessments,

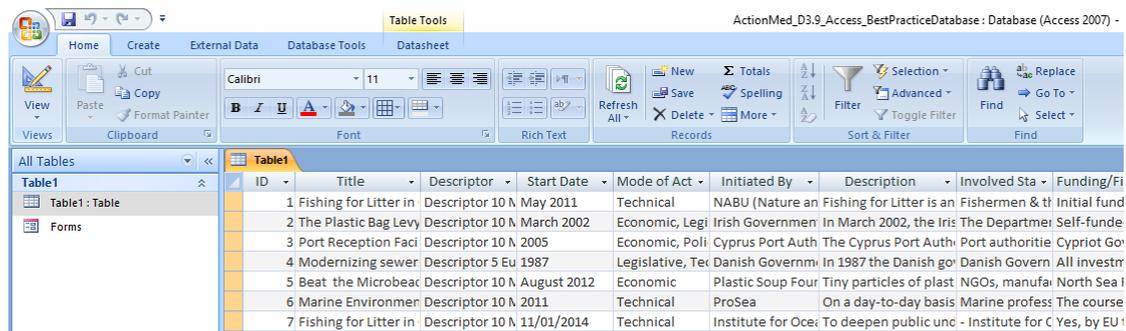
	as well as the Offshore Protocol of the Barcelona Convention
7.	Measures related to land-based activities:
a.	Accident management plans for land-based activities
b.	Assessment of contaminated sites urgently in need of remediation
c.	Industrial waste and wastewater management (determination of conditions and prerequisites for the connection of industries to WWTP, and completion of works for the collection and treatment of wastes from industry).
8.	Measures related to decision-making and implementation monitoring:
a.	Establishment of a standard-systematic procedure (tool) in an official form for stakeholder involvement in the decision-making process
9.	Measures related to awareness-raising for marine litter:
a.	Awareness-raising of the general public and education targeted to specific groups (tourism, industry, shipping/fishing and decision makers)
b.	Targeted awareness raising campaigns
c.	Awareness raising actions and communication to general public, local authorities, schools etc
d.	Promotion and introduction of green practices in the tourism sector
e.	Launch and encourage participation to a Mediterranean Cleanup Day by UNEP-MAP
10.	Measures related to Fishing for Litter initiatives:
a.	Fishing practices e.g. fishing gear management and fishing for litter and sustainable cleanups
b.	Support Fishing for Litter practices, including for derelict fishing gear, with the no-fee disposal of litter collected by fishermen
c.	Support and finance Fishing for Litter practice. Introduce the “no fees” policy for the disposal of litter brought by fishermen, and improve port waste reception facilities and management
11.	Measures related to plastic litter:
a.	Specific monitoring e.g. for microplastics in fish tissue
b.	Reduction of the consumption of plastic bags (through e.g. a tax on plastic bags)
c.	Promotion of measures for the ban of microplastics in cosmetics and awareness-raising on the sources and impacts of microplastics
d.	Implementation of the measures for the reduction of the consumption of plastic bags
12.	Other measures for marine litter:
a.	Improvement in wastewater treatment plant and landfill management
b.	Establishment and implementation of a National Action Plan on marine litter and its incorporation it in the National Plan for solid waste management
c.	Undertake measures for reuse, recycling and recovery

BEST PRACTICE DATABASE DEVELOPMENT

The best practice database has been developed in Microsoft Access, using the Table and Form functions of the software (the database is available as Appendix B in a separate file). Access was selected as it allows the information to be entered in an organised manner in a table form (see Figure 1), whereas the Form functions allows the presentation of each practice on a specific template that can be printed by any interested party (Figure 2 and Figure 3).

The information that is captured for each best practice in Access corresponds to the information included in the template that appears in Appendix A, i.e.:

- Title of the practice
- The Descriptor(s) to which it relates (i.e. Descriptor(s) 5, 8, 9, 10)
- The date that the practice was initiated
- The mode of action of the practice (i.e. Technical, Economic, Legislative or Policy Driven)
- Who it was initiated by
- A brief description of about 200 words
- A list of the involved stakeholders and, where relevant, a brief description of how they were engaged
- Information on the funding of the practice i.e. who funded it and if possible what was the cost
- A presentation of the practice's results, providing quantitative information where relevant
- The success and fail factors of the practice, and any lessons learned
- The practice's success rate (i.e. somewhat successful or very successful)
- Any additional, supporting information
- Information on who (person or organisation) submitted the practice.



ID	Title	Descriptor	Start Date	Mode of Act	Initiated By	Description	Involved Sta	Funding/Fi
1	Fishing for Litter in	Descriptor 10 N	May 2011	Technical	NABU (Nature an	Fishing for Litter is an	Fishermen & th	Initial fund
2	The Plastic Bag Levy	Descriptor 10 N	March 2002	Economic, Legi	Irish Governmen	In March 2002, the Iris	The Departme	Self-funde
3	Port Reception Faci	Descriptor 10 N	2005	Economic, Poli	Cyprus Port Auth	The Cyprus Port Auth	Port authoritie	Cypriot Go
4	Modernizing sewer	Descriptor 5 Eu	1987	Legislative, Te	Danish Governm	In 1987 the Danish go	Danish Govern	All investr
5	Beat the Microbeac	Descriptor 10 N	August 2012	Economic	Plastic Soup Four	Tiny particles of plast	NGOs, manufa	North Sea I
6	Marine Environmen	Descriptor 10 N	2011	Technical	ProSea	On a day-to-day basis	Marine profess	The course
7	Fishing for Litter in	Descriptor 10 N	11/01/2014	Technical	Institute for Ocea	To deepen public und	Institute for C	Yes, by EU!

Figure 1: Example of the Table view of the Best Practice Database in Access

ActionMed_D3.9_Access_BestPracticeDatabase : Database (Access 2007) - Microsoft Access

Home Create External Data Database Tools

View Paste Copy Format Painter Font Rich Text Refresh All Save Spelling Delete More Filter Sort & Filter

All Tables Table1 Forms

Table1 Table1 : Table Forms

Title:	Fishing for Litter in Croatia, IPA Project: Derelict Fishing Gear Management System in the Adriatic region; acronym: DeFishGear
Descriptor:	Descriptor 10 Marine Litter
Start Date:	11/01/2014
Mode of Action:	Technical
Initiated By:	Institute for Oceanography and Fisheries, Split, Croatia
Description:	To deepen public understanding on the issue of marine litter and catalyse change in the perceptions and attitudes towards marine litter through various awareness raising activities is one of the most important components of the DeFishGear
Involved Stakeholders:	- Institute for Oceanography and Fisheries, Split – leader and coordinator of the action
Funding/Financial Support:	Yes, by EU through IPA funds
Initiative's results:	Fishing for Litter pilot activities in two areas in Croatia (Hvar and Tribunj) has demonstrated on a limited scale that the objectives and aims (reducing marine
Success and Fail Factors and Lessons Learned:	The success is the high engagement and involvement of fishermen and a good public perception of these activities which support the fishermen's practice.
Success Rate:	Very Successful
Additional/Supporting Information:	Report: Guidelines for Marine litter and Derelict Fishing Gear Management in the frame of ICZM. Still no url address.
Initiative Submitted By:	Pero Tutman, Institute for Oceanography and Fisheries, tutman@izor.hr

Figure 2: Example of the Form View of each best practice included in the Access Best Practice Database



Action Plans for Integrated Regional Monitoring Programmes, Coordinated Programmes of Measures and Addressing Data and Knowledge Gaps in Mediterranean Sea - Case Studies: Moving Towards Better Practice

Title:	Fishing for Litter in Germany
Descriptor:	Descriptor 10 Marine Litter
Start Date:	May 2011
Mode of Action:	Technical
Initiated By:	NABU (Nature and Biodiversity Conservation Union Germany)
Description:	<p>Fishing for Litter is an initiative based on cooperation with fisheries associations, in which fishermen bring ashore, voluntarily, the litter that is collected in their nets during their normal fishing operations. Fishermen are not financially compensated for their engagement, but the disposal logistics are for free. In 2011 NABU adopted the KIMO approach developed in year 2000 by launching first 2 harbours in Schleswig-Holstein Germany and therefore in the entire Baltic region. A total of 14 ports with more than 150 fishermen now participate in the project.</p> <p>Fishermen are given special big bags to store the litter collected at sea and containers for waste disposal are available in selected harbours for free. So far all litter collected is analyzed in cooperation with project partners from waste industries and authorities in order to investigate waste composition, amount and potential recyclability of waste fractions such as metals or plastics.</p> <p>All types of marine litter are targeted depending on the gear type used. Most amounts are from sea-floor litter collected with bottom-contacting gear.</p> <p>The fishing for litter scheme is embedded in the wider NABU project "Plastic Free Oceans" launched in 2010 and supports an intense public awareness campaign to address the issue of marine littering.</p>
Involved Stakeholders:	Fishermen & their associations, port authorities, regional waste industries, federal environmental authorities, waste recovery industries
Funding/Financial Support:	<p>Initial funding in 2010/11 by Environmental Ministry BMU Germany and Federal Environment Agency (UBA).</p> <p>Since 2013 funding by Environmental Ministry Lower Saxony for 2 years to extend the project with regional authorities on the North Sea coast. The state of Schleswig-Holstein will financially support the project for the next 3 years.</p> <p>Support by DSD – Der Grüne Punkt Deutschland - by covering the waste analysis.</p>
Initiative's results:	A total of 14 ports with more than 150 fishermen now participate in the project.
Success and Fail Factors and Lessons Learned:	The integration of regional stakeholders is of vital importance i.e. bringing together fishermen and their associations, waste industries, harbour authorities and representatives from communities in order to jointly agree on logistics, communication, public relation, etc. A round table was initiated and each harbour started with a joint press conference. It is of additional value to link the project with other marine litter related activities in the region and to ensure a constant communication and promotion of the regional projects, e.g. via info signs, info stands at local events, press releases, etc.
Success Rate:	Very Successful

Figure 3: Example of how each best practice can be printed using the Access Form function

CONCLUSIONS

A total of 15 practices are included in the Best Practice Database, all of them implemented around Europe. Where possible, practices originating from the countries participating in the ActionMed project have been included in the database. Unfortunately, it was not possible to identify practices to match all 12 categories presented in Table 1. Specifically, measures related to seafood quality, aquaculture and offshore activities have not been identified. All the identified practices appear in Appendix C (separate file) in pdf format.

The Database can serve as a very useful tool to those stakeholders and policy makers wishing to implement similar practices, as it outlines what worked well in an initiative, what were the major steps to take and what are the things to watch out for. Furthermore, through the provision of links to key websites, as well as the contact details of the person submitting the practice, users can further investigate those practices of their interest.

APPENDIX A:

TEMPLATE SHARED WITH PROJECT PARTNERS AND KEY STAKEHOLDERS FOR RECORDING BEST PRACTICES

Initiative Title:	
Which Descriptor(s) does the initiative relate to?	<input type="checkbox"/> D5 – Eutrophication <input type="checkbox"/> D8 – Contaminants <input type="checkbox"/> D9 – Contaminants in Seafood <input type="checkbox"/> D10 – Marine Litter
When did this initiative begin?	Click here to enter a date.
What is the mode of action of the initiative?	<input type="checkbox"/> Technical <input type="checkbox"/> Legislative <input type="checkbox"/> Economic <input type="checkbox"/> Policy Driven
Who initiated the initiative?	
Brief Description (100 to 200 words)	
Involved Stakeholders and how they were engaged (if applicable):	
Funding/Financial Support (yes/no and by whom):	
What are the initiative’s results? If possible, please provide quantitative information.	
Please describe the success and fail factors for the initiative, and any lessons learned.	
Success Rate (i.e. did the project have an impact on e.g. the amount of litter, contaminants etc):	Please Select One
Please use this space to provide	



any additional and supporting information/ documentation e.g. url, report etc.	
Submitted by: (name, organization, contact details)	





APPENDIX B:

ACCESS DATABASE OF BEST PRACTICES (SEPARATE FILE)

<http://actionmed.eu/best-practice-database-isotech-ltd/>





APPENDIX C:

THE 15 BEST PRACTICES IN PDF FORMAT (SEPARATE FILE)

<https://cloudfs.hcmr.gr/index.php/s/bf9IPxNYfSYq2Jj>



