Adaptive Policy Framework - Final report on expectations issued by the Southern European Seas (SES) stakeholder platform

Deliverable D6.15

Project Full title		Policy-oriented marine Environmental Research in the Southern EUropean Seas	
Project Acronym		PERSEUS	
Grant Agreement No.		287600	
Coordinator		Dr. E. Papathanassiou	
Project start date and duration		1st January 2012, 48 months	
Project website		www.perseus-net.eu	
Deliverable Nr.	6.15	**Deliverable Date**	June 2015
Work Package No		6	
Work Package Title		Adaptive Policies and Scenarios	
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Status:		**Final (F)**	F
		Draft (D)	
		Revised draft (RV)	
Dissemination level:		**Public (PU)**	PU
		Restricted to other program participants (PP)	
		Restricted to a group specified by the consortium (RE)	
		Confidential, only for members of the consortium (CO)	

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EXECUTIVE SUMMARY / ABSTRACT

The final objective of the PERSEUS project is to develop a framework to design and implement adaptive policies to promote better governance and achieve Good Environmental Status (GES) across Southern European Seas (SES), mostly in the context of the EU Marine Strategy Framework Directive (MSFD) implementation. This Adaptive Policy Framework (APF) has been conceived to include both a decision support system helping to elaborate policies coping with uncertainties, the Adaptive Marine Policy (AMP) Toolbox; and, Stakeholder Platforms (SHPs) at sub-basin and basin scales. The role of these SHPs is double-fold: (i) to help designing the AMP Toolbox; and, (ii) to contribute to its test and improvement, as representatives of the future users of the Toolbox. This deliverable aims at presenting the outputs of the consultations carried out within the SHP at basin or regional level (i.e. Mediterranean and Black Sea). These consultations provided key elements on stakeholders' needs and expectations in terms of new knowledge, data, and decision support tools expected for the implementation of the MSFD (i.e. to prepare the technical specifications of the AMP Toolbox), as well as their opinions on the AMP Toolbox (i.e. to improve the AMP Toolbox). Contributions on the different components of the AMP Toolbox were collected through consultations, particularly during two PERSEUS Advisory Board meetings: 25/01/2013 in Barcelona (for the design of the AMP Toolbox) and 01/12/2014 in Marrakech (for testing the AMP Toolbox).

SCOPE

Following the 'APF vision statement' (2012) and the conceptual approach of the AMP Toolbox (2013), PERSEUS organized several exercises of stakeholder consultation at basin level (Mediterranean and Black Sea), taking advantage of the involvement of key regional stakeholders within the PERSEUS Advisory Board (AB). These exercises aimed at collecting the requirements of the stakeholders and decision-makers to be satisfied by the AMP Toolbox. Results of the AB meetings are presented in this deliverable, which is linked to D6.14 (i.e. Experimentations developed at basin level and the improvements performed on the AMP Toolbox based on the key lessons learnt with the tests). The present report is structured into two sections, as follows:

- Section 1-Expectations and needs to develop the AMP Toolbox: First stakeholder meeting and open discussions with the PERSEUS Advisory Board (Barcelona, January 2013). This section introduces the outputs from the first regional stakeholders' consultation exercise, where their expectations and requirements for the elaboration of the AMP Toolbox were collected. That represented a preliminary step before the development of the toolbox.

- Section 2-Comments and recommendations to improve the AMP Toolbox. This second section is based on results of various exercises of stakeholders' consultation exercises. These exercise represented the laying-ground for the improvements to be performed on the AMP Toolbox (i.e. described in D6.14).

ACRONYMS AND ABBREVIATIONS

AB: Advisory Board

ACCOBAMS: Agreement on the Conservation of Cetaceans in the Black Sea, Mediterranean Sea and Contigous Atlantic Area

APF: Adaptive Policy Framework

BENA: Balkan Environmental Association

BSC - PS: (Black Sea Commission) Commission on the Protection of the Black Sea against Pollution - Permanent Secretariat

CIESM: Mediterranean Science Commission

CFP: Common Fisheries Policy

DG ENV: Directorate General for the Environment (European Commission)

DG MARE: Directorate General for Maritime Affairs and Fisheries (European Commission)

DoW: Description of Work

EcAp: Ecosystem Approach initiative (UNEP/MAP)

EBM: Ecosystem Based-Management

EC: European Commission

EEA: European Environment Agency

EEZ: Exclusive Economic Zone

EMD: European Maritime Day

ESF: European Science Foundation

EU: European Union

FAO: Food and Agriculture Organisation

GES: Good Environmental Status

GFCM: General Fisheries Commission for the Mediterranean

IMO: International Maritime Organisation

IOC-UNESCO: Intergovernmental Oceanographic Commission - United Nations Organization for Education, Science and Culture

MAP: Mediterranean Action Plan

MPA: Marine Protected Area

MS: Milestone

MSFD: Marine Strategy Framework Directive

MSP: Marine or Maritime Spatial Planning

NFP(s): National Focal Point(s)

SAP BS: Strategic Action Plan for the Environmental Protection and Rehabilitation of the Black Sea

SES: Southern European Seas

SHP(s): Stakeholder Platform(s)

SSC: Scientific Steering Committee

TLC: Task Leader Committee

UNEP: United Nations Environment Programme

WFD: Water Framework Directive

WWF: World Wide Fund for Nature

GENERAL INTRODUCTION AND BACKGROUND

1. Objective of the PERSEUS project

The Mediterranean Sea is a rich and fragile ecosystem, which concentrates 8% of global biodiversity within a surface area that represents 0.8% of the world's oceans. It is also a unique commercial crossroads and its coastal areas have significant residential and demographic appeals[1]. "*Growing coastal populations, urbanisation, ever-increasing maritime commerce, exploitation of natural resources, and coastal tourism are the drivers behind the chronic pressures that continue to degrade Mediterranean seas and coasts*" (UNEP/MAP, 2012: 18). In fact, the Mediterranean is a sea facing many sources of pressures (fishing, maritime traffic, urbanization, tourism, resources exploitation, etc.), with potentially wide-ranging ecological and socio-economic effects. Therefore deserves special attention and exemplary protection. From a European policy perspective, in 2008 the European Union adopted the Marine Strategy Framework Directive (MSFD). This Directive establishes a framework to develop marine strategies and achieve or maintain Good Environmental Status (GES) for 2020 according to the Ecosystem-Based Approach (EBA) to management. For this purpose, it proposes five complementary steps where EU Member States have to: (i) set up an initial assessment of the current environmental status (2012); (ii) determine GES; (iii) establish environmental targets with associated indicators (2012); (iv) establish and implement monitoring programs (2014); (v) develop (2015) and implement (2016) programmes of measures.

Though, achieving GES can be particularly difficult in regions such as the Mediterranean and Black Sea, where the geopolitical and economic disparity hinders a shared action toward achieving environmental goals, including the implementation of the MFSD. In this context, PERSEUS (*Policy-Oriented marine Environmental Research for the Southern European Seas* – www.perseus-net.eu) aims at supporting the implementation of the MSFD in the Southern European Seas (SES), namely Mediterranean and Black Sea.

2. Other legal frameworks calling for the EBA

In the Mediterranean, the ecosystem approach is also underlying, particularly via the 'Ecosystem Approach' initiative (EcAp) under the Barcelona Convention; EcAp was launched in 2008 by the Mediterranean Action Plan (UNEP/MAP). This initiative can be considered as an extension of the MSFD for the Mediterranean basin and offers a similar and harmonized approach for assessing the environmental status, setting ecological objectives, and defining the programme of measures and monitoring programme. The ecological objectives echo the eleven descriptors of the MSFD.

[1] The Mediterranean Sea represents approximately 30% of global maritime traffic and one third of international tourist flows. "*The total population of the Mediterranean countries grew from 276 million in 1970 to 412 million in 2000* (…) *and to 466 million in 2010. The population is predicted to reach 529 million by 2025*" (UNEP/MAP, 2012: 26).

The Contracting Parties to the Barcelona Convention have agreed a vision, as follows: "*A healthy Mediterranean with marine and coastal ecosystems that are productive and biologically diverse for the benefit of present and future generations*" (UNEP/MAP, 2012). This vision was then declined into three strategic goals:

- *To protect, allow recovery and, where practicable, restore the structure and function of marine and coastal ecosystems thus also protecting biodiversity, in order to achieve and maintain good ecological status and allow for their sustainable use.*
- *To reduce pollution in the marine and coastal environment so as to minimize impacts on and risks to human and/or ecosystem health and/or uses of the sea and the coasts.*
- *To prevent, reduce and manage the vulnerability of the sea and the coasts to risks induced by human activities and natural events.*

A seven-step Roadmap has been agreed by the Contracting Parties to the Barcelona Convention for the progressive implementation of the EcAp initiative. The EcAp roadmap implicitly aims to boost the MSFD dynamic beyond the EU and its Member States. EcAp can be considered as instrumental for implementing and ensuring the success of the MSFD in the Mediterranean, because the impacts of human activities do not have borders: fish stocks, pollution, loss of biodiversity, etc. A real improvement in the status of the Mediterranean marine environment calls for a determined and concerted effort from all riparian countries. The EcAp roadmap indirectly contributes to the achievement of MSFD objectives by offering an application of the ecosystem approach, in order to promote a better understanding of the risks and cumulative effects, a better response, and a better focus of actions on priority targets, in order to design an adaptable management strategy. EcAp is inspired by the principle of adaptive management and should be subject to periodic reporting and revision.

In the Black Sea, the Commission on the Protection of the Black Sea Against Pollution (the Black Sea Commission or BSC) via its Permanent Secretariat is the intergovernmental body established in implementation of the Convention on the Protection of the Black Sea Against Pollution (Bucharest Convention), its Protocols and the Strategic Action Plan for the Environmental Protection and Rehabilitation of the Black Sea (SAP BS). The ecosystem approach has also inspired the SAP BS.

3. Adaptive policies

An important aspect and explicit requirement of the EBA is Adaptive management. The MSFD, for example, states that "the Programme of Measures is flexible and adaptive and takes account of scientific and technological developments". However, although adaptive management is essential to the practical application of the EBA and the MSFD in more particular, evidence on its success is still limited since adaptive management is perceived as ambiguous or unclear. Accordingly, in the following paragraphs we try to bring some light to the meaning of adaptive management.

"Adaptive policies" mean policies that can be effective under uncertainties and changing conditions (Holling, 1978). Such policies – adaptive both to anticipated and (most importantly) unanticipated conditions – have to be devised not to be optimal for a best estimate future, but robust across a range of futures on the one hand; and to respond to changes over time and make explicit provision for learning on the other hand (Walker et al., 2001).

Adaptive policies and integration of uncertainties

"*Designing policies in a world of uncertainty, change, and surprise is a challenge facing policy-makers in all sectors;* (…) *a key challenge is developing policies that are robust enough to be useful in a rapidly changing and uncertain future.* (…)

To better integrate science and politics in natural resources management issues, it is recommended that adaptive policies be "designed from the outset to test clearly formulated hypotheses about the behaviour of an ecosystem being changed by human use" (Lee, 1993). *According to Holling (1978), it is also understood in the natural resources management field that in order to build resilience for complexity and change, interventions should promote self-organization by building networks of reciprocal interaction and matching scales of ecosystems and governance*" (IISD, 2007).

Adaptive policies are, in a way, in line with the sustainable development principle, namely *a development that meets the needs of the present generations without compromising the ability of future generations to meet their own needs.* In a context of uncertainty, it is necessary to respond to immediate needs while allowing for future minor adjustments or a deep reworking based on the conditions evolution.

Let us consider fishing [even though fishery policies cannot be considered to be a model of adaptive policy, with the exception of quotas established by public authorities]. For a long period of time, fish stocks were considered to be an endless resource, the only limit being the technical fishing capacity. When it was observed that the stocks of some species was decreasing, fishery management policies were defined, taking into account economic and social considerations: food, employment, incomes. However, although a problem had been identified, its causes and extent were unknown. The current situation was not fully understood, let alone what would happen in the future, but it was clear that action was required. Some of the policies implemented had (and have) an adaptive nature, such as quotas, monitoring programmes or experimental measures that were then rolled out if they worked: fishing reserves, anti-trawling artificial reefs to prevent illegal fishing, etc.

References: Swanson and Bhadwal, 2009; Holling, 1978; Walters, 1986; Williams and Brown (2014).

4. PERSEUS and WP6´s structure

To promote better governance and achieve Good Environmental Status across the Southern European Seas (SES) in line with the MSFD scope, objectives, and process, PERSEUS project (through an innovative combination of natural and socio-economic science) aims to design an effective and resourceful research governance framework, based upon newly collected, sound scientific knowledge. For this purpose, the PERSEUS project is organised around four clusters within which the work is divided into several work packages (WPs) (see Figure 1).

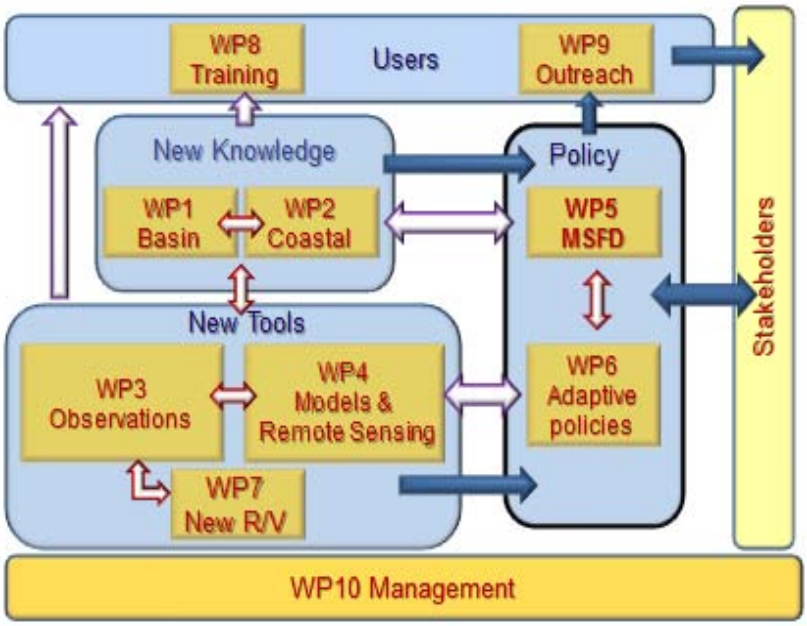


Figure 1: The four clusters of the PERSEUS project

The "Policy" cluster is central within the project since it focuses on the promotion of the MSFD principles and on adaptive policies development. The "Knowledge" and "Tools" clusters are those where the core scientific and technological works are carried out. Finally the "Users" cluster is where the results and capacities developed by the project are shared with stakeholders and decision-makers through both training and outreach activities.

The overall intent of WP6 ("Adaptive policies and scenarios") is to bridge the gaps between scientists and policy-makers, while remaining policy relevant and avoiding prescriptive endeavours. In the framework of WP6, PERSEUS will thus develop, through a participatory approach, an Adaptive Policy Framework (APF), which will assist policy-makers in facilitating and preparing the future implementation of adaptive policies and management schemes in view of a better governance of the human-made pressures in the Mediterranean and the Black Seas. These policies and management schemes will aim to achieve or maintain Good Environmental Status while enabling the sustainable use by present and future generations of marine goods and services.

5. Adaptive Policy Framework (APF) and Adaptive Marine Policy (AMP) Toolbox (AMP Toolbox)

The APF aims at providing tools to support decision-makers to define suitable adaptive policies for a better governance of the SES marine and coastal ecosystems. The APF is structured into two components, as follows:

5.1. The Adaptive Marine Policy (AMP) Toolbox 'AMP Toolbox'

(http://www.perseus-net.eu/en/about_the_apf_toolbox/index.html)

It is a guide for stakeholders and policy-makers to support the definition and implementation of adaptive policies. It provides to end-users keys to let them understand and apply the adaptive policy approach. The definition and implementation of management strategies for coastal and marine areas are described in a simple, easy to access, step-by-step approach, identifying crucial phases related to specific activities of problem identification, decision-making and strengthening policies against unexpected and undesired events, finally implementing and adapting them to new evidence and needs.

Vision statement of the Adaptive Policy Framework (Version 1 – PERSEUS Umbrella Workshop, Barcelona, 22-23 January 2013)

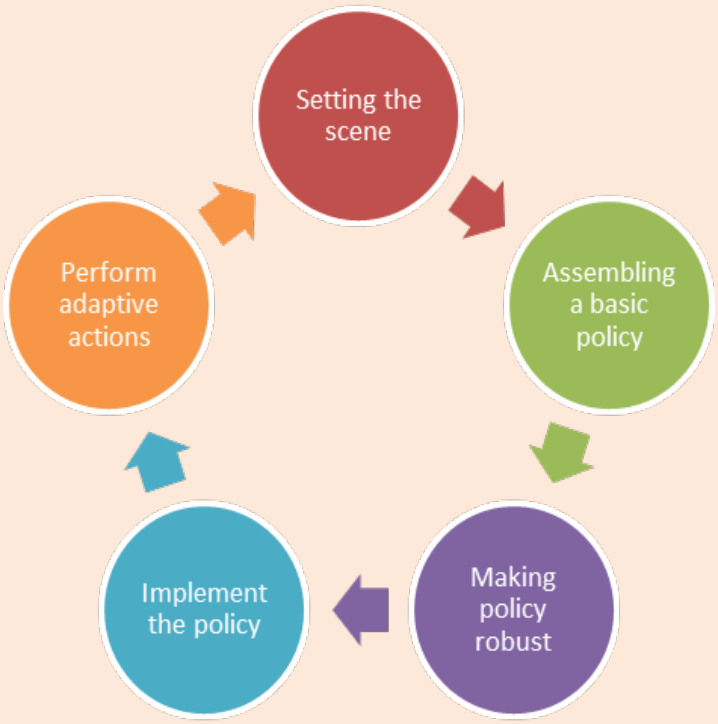
The PERSEUS APF can be considered as a 'decision support system' to progress towards the achievement of the GES of the SES. A vision statement of the APF has been drafted by WP6, as follows:

- At the end of the PERSEUS project, the APF will be recognized and routinely used as a knowledge platform, which, having built bridges between scientific researchers, policy-makers, end-users and stakeholders in general, will help define and assess programs of measures and policies aiming to achieve or maintain the GES of coastal and marine waters at local, national and regional levels in the Mediterranean and Black Sea basins.
- Based on the results of the project and thoroughly tested on pilot cases at various scales with the active participation of stakeholders, the APF supports the design of policies, using scenarios and the visualization of alternative policy outcomes.
- The overarching goal of the APF is to facilitate the implementation of adaptive policies and management schemes aimed at improving environmental quality in the Mediterranean and the Black Sea, and as a result maximizing their capacity to provide ecosystem services to their surrounding populations, while fostering international cooperation with neighbouring countries.

The Adaptive Marine Policy Toolbox - AMP Toolbox

Following this vision statement, a 'tool application' is developed within Task 6.3 to support the APF and the activities devoted to stakeholder dialogue (See PERSEUS Deliverables D6.7 and D6.11).

The AMP Toolbox provides a set of knowledge and tools to increase the overall capability of decision-makers to create policies and a regulatory framework for achieving or maintaining the GES of marine ecosystems. The AMP is a specific decision support system based on scientific evidence, using a scenario-planning approach to support management schemes. The AMP Toolbox is organised as a guidebook for decision-makers and linked to a set of tools, resources, databases, and case studies.



The AMP Toolbox is designed in a five steps cyclical guidance procedure for the definition and the implementation of adaptive policies, as follows:

Step 1: Setting the scene - Describe the problem/system and define policy goals. A detailed diagnosis of the present state of the marine environment is essential for the detection of drivers, pressures and impacts on the marine environment and the establishment of priorities for policy actions.

Step 2: Assembling a basic policy. Single measures and their combinations are composed to policy pathways, using specific selection criteria like efficacy, cost-effectiveness, time horizons, etc., including consideration of costs and benefits.

Step 3: Making policy robust. Once defined, the chosen set of policy measures is made robust against uncertainties. Contingency planning allows anticipating future problems, identification of necessary mitigation measures and triggers, which should result in an adaptation of the policy.

Step 4: Implementing the policy/strategy. This core step requires detailed planning, control of budget, and coordination of actions, including the involvement of relevant institutions and stakeholders, following a regularly updated protocol.

Step 5: Perform adaptive actions - Evaluating and adjusting policies. The continuous monitoring and review process combined with the use of thresholds and alarm levels defined during the step 3 can help to detect, in time, expected and unexpected trends and policy outcomes, which will require the formulation of new measures and/or the modulation of existing ones (policy adjustment).

For more details, please see: http://www.perseus-net.eu/en/policy_cycle/index.html

5.2. 'Stakeholder Platforms' (SHPs)

First of all, in the context of the PERSEUS project, stakeholders can be defined as individuals, groups or institutions that are concerned with, or have an interest in, the marine resources and their management. They include all those who affect and/or are affected by the policies, decisions, and actions regarding marine ecosystems, including public sector agencies, private sector organizations, NGOs, and external agencies such as donors. The priority target groups of the SHPs are as follows:

(i) Policy & decision-makers, politicians and local authorities;

(ii) Scientists and the wider scientific community;

(iii) Key influencers / multipliers of information.

Secondly, Steins & Edwards (1998) defines a platform as "decision-making body (voluntary or statutory) comprising different stakeholders who perceive the same resource management problem, realize their interdependence for solving it, and come together to agree on action strategies for solving the problem". It is like a roundtable, where people are gathered and have multi-stakeholder dialogues (Warner, 2005); the notion of platform is close to other terms such as forum, dialogue, partnership, and network, etc.

Finally, based on the above definitions – and under the principle of "de-compartmentalization" allowing to step out of sectoral issues for taking a broader overview of the issues –, a "stakeholder platform" brings together, around the same "table", different stakeholders from the public sector (State, local authorities, public agencies), private companies, voluntary sector and civil society, supranational organizations and donors. In other words, a stakeholder platform can be considered as a forum of negotiation. "In multi-stakeholder platforms, power is (…) dispersed in such a way that no actor dominates, and its management is not monopolized by a single actor" (Warner, 2005). "It is highly improbable (and even non-desirable) that a degree of consensus will be achieved at early stages of the process, since it often leads to business-as-usual, or just "politically correct" recommendations"[2].

SHPs are built (Task 6.2) and implemented (Task 6.4) at basin or regional level, as well as in four pilot case areas in order to: (a) Promote and strengthen dialogue between scientists and stakeholders (including decision-makers); (b) Better know their needs and expectations; finally, (c) Make the AMP Toolbox suitable by taking into account these needs and expectations.

Within Task 6.4 the AMP Toolbox is implemented in the following four pilot case areas (Figure 2):

[2] http://www.et2050.eu/europe_2050/index.php/participatory-approach, Territorial Scenarios and Visions for Europe ET2050 – ESPON

Figure 2: The four pilot case areas where the APF has been tested.

1. Western Mediterranean: Gulf of Lions - Catalan Sea (France and Spain);
2. Central Mediterranean / Northern Adriatic (Croatia, Italia, Slovenia);
3. Eastern Mediterranean: Aegean Sea - Saronikos Gulf (Greece), and;
4. Western Black Sea (Romania and Bulgaria).

In addition of SHPs at the sub-basin level (pilot case areas), the SES SHP is strongly linked to the management office of the project and through the involvement of the PERSEUS Advisory Board (Table 1).

Table 1: Members of the PERSEUS project´s Advisory Board

Name, surname	Organisation, Function
Prof. Fokion Vosniakos, Chairperson	Balkan Environmental Association-BENA, President
Dr. Tatjana Hema	MED POL - UNEP/MAP, Programme Officer
Prof. Halil Ibrahim Sur	Black Sea Commission / BSC, Director of the Permanent Secretariat
Dr. Iouri Oliounine	IOC/UNESCO, Assistant Secretary
Prof. Frederic Briand	CIESM, Director General
Dr. Paolo Lombardi	WWF Med Programme, Office Director
Dr. Henri Farrugio	Chairman of the Scientific - General Fisheries Commission for the Committee Mediterranean / GFCM
Dr. Niall McDonough	Marine Board-ESF, Executive Scientific Secretary
Dr. Trine Christiansen	EEA, Project Manager
Mr. Michail Papadoyannakis, replaced by Mrs. Marjana Mance Kowalsky	DG ENV, Marine Unit D.2
Mrs. Anita Vella	DG MARE, Policy Officer

The PERSEUS Advisory Board gathers the "International / Regional Stakeholders" for the Southern European Seas – Mediterranean and Black Sea Stakeholder Platform (SES SHP). During the 1st PERSEUS Advisory Board meeting (Istanbul, January 2012), they agreed to be part of the SES SHP, and they named a Chairperson: Prof. Fokion Vosniakos (BENA). They were the main target of the first stakeholder meeting which was held in Barcelona on 25 January 2013 back-to-back with the 2nd PERSEUS general assembly.

Therefore the SES SHP is made up of members of the PERSEUS Advisory Board in which the two intergovernmental bodies established for the implementation and follow-up of the Barcelona and Bucharest Conventions are represented (i.e. the Mediterranean Action Plan (UNEP/MAP) and the Commission on the Protection of the Black Sea Against Pollution (BSC) respectively).

6. Objectives, structure and main output of the present deliverable

Having rapidly clarified those legal and institutional requirements and elements (i.e. EU-MSFD, UNEP/MAP EcAp roadmap, and BSC SAP BS), as well as the rationale of the PERSEUS project (and of the WP6 particularly), the present deliverable D6.15 aims at presenting, processing, and synthesizing the results of stakeholder consultations carried out at basin level. The objectives of these consultations have been: (i) to gather stakeholders´ expectations and needs for the development of the AMP (i.e. from Task 6.2); and, (ii) to collect their comments and recommendations during the experimentation phase for its improvement (i.e. from Task 6.4). For this purpose, we have taken advantage of the involvement of the members of the PERSEUS Advisory Board within the Regional Stakeholder Platform.

According to these two objectives, this report is structured into two sections, according to the main actions performed during the process of regional stakeholders' consultation to achieve each one of the above-mentioned objectives:

- Section 1-Expectations and needs to develop the AMP Toolbox: First stakeholder meeting and open discussions with the PERSEUS Advisory Board (Barcelona, January 2013).

  As members of the SES SHP, the members of the PERSEUS Advisory Board were the main target of the first stakeholder meeting, held in Barcelona on the 25th of January 2013 back-to-back with the PERSEUS general assembly.

- Section 2-Comments and recommendations to improve the AMP Toolbox:

  - AMP Toolbox workshop performed with PERSEUS Advisory Board at the PERSEUS 3rd Annual General Assembly and scientific workshop (December 2014, Marrakech).

  - Personal interview with Luis Valdes (i.e. member of the Advisory Board) performed at the Second International Ocean Research Conference (IORC) (Barcelona, November 2014)

  - In addition, different demonstrations have been performed with additional regional or basin level stakeholders and potential end-users at important meetings in the Mediterranean and Black Sea, such as the "International Black Sea Day" (Istanbul, 3rd November 2014).

  - Finally, the 4th subsection presents the results of the "AMP Toolbox workshop for the Adriatic Sea: a role play with sub-regional stakeholders".

Section 1. Expectations and needs: first stakeholder meeting and open discussions with the advisory board

The 2nd PERSEUS Advisory Board Meeting was held on 25th of January 2013 in the University of Barcelona, back-to-back with the PERSEUS 1st Umbrella Workshop (22-23/01/2013) and General Assembly (24-25/01/2013). This participatory meeting allowed getting a general discussion on issues related both to the integrated nature and to the policy-oriented aspects of the project. Most of the members of the Advisory Board shared with the consortium their suggestions and recommendations, raising the question of mutual benefits from collaboration between scientists and stakeholders.

1. Open discussions with the Advisory Board - Feedback and Issues of concern

The members of the Advisory Board expressed their views, proposals and recommendations on the project, as follows:

Prof. Fokion Vosniakos (BENA), Chairperson of the PERSEUS Advisory Board

Since PERSEUS represents an opportunity of **translation and integration from sciences into policy**, the project's results presented to stakeholders have to be drafted in a suitable form, using an easy and common language. Rather than a lot of details and figures, stakeholders need information on the priority issues to be tackled and on the main policy messages scientifically based.

Furthermore the scientists involved within the project have to consider the members of the Advisory Board as voluntaries; they have to reflect on what should be done by them. For instance, the members of the Advisory Board could support the public awareness.

Mr. Michail Papadoyannakis (DG ENV)

PERSEUS can support the coordination and the follow-up of what has been done in EU Members States in terms of implementation of the MSFD. The project offers relevant insights in terms of new scientific knowledge, but the consortium has to take care to avoid duplication with other projects. One of the strength of the project should be to analyse **cumulative impacts** – both anthropogenic and natural – because there are big gaps to fill in this domain.

The cooperation between the two regional seas (Mediterranean and Black Seas) is also a very interesting aspect since *the sea has no border*… This cross-regional approach is particularly relevant because it merges different scales, from basin (regional) to the pilot cases (subnational/local), with an equal treatment for all the studied areas; they are not easy things to achieve because a lot of national and territorial reports have to be taken into consideration. PERSEUS has to pay particularly attention to the **regional sea conventions**: i.e. UNEP/MAP and BSC.

In parallel of the MSFD which concerns only the EU member States, UNEP/MAP has launched the "Ecosystem Approach" initiative (EcAp) gathering several working groups who have already defined targets and indicators. It should be crucial for

PERSEUS to make linkages with EcAp since the UNEP/MAP initiative is very close of the MSFD process; it supports the integration between the North and the South parts of the Mediterranean basin regarding marine strategies. There are also important environmental reports for the Black Sea; the 'strategic action plan' represents a framework of new approaches for next years.

By improving close collaboration with the regional sea conventions (Barcelona Convention and Bucharest Convention), the scientific community could better take into account policy needs. Thanks to this approach, interactions between scientists and decision-makers should be more systematic and more structured.

Mrs. Anita Vella (DG MARE)

The MSFD represents the environmental pillar of the marine policies at the European level. Other policy approaches, such as maritime spatial planning (MSP), Ecosystem Based-Management (EBM), Common Fisheries Policy (CFP), and Blue Growth concept, as well as sub-regional initiative such as the Strategy for Adriatic and Ionian Sea Region, have to be taken into account in terms of needs of data and observation systems. Those initiatives can learn from each other and be mutually beneficial. For instance the fish stock assessment carried out by the GFCM in the Mediterranean and Black Seas can be useful and used for PERSEUS. Regarding the interactive process with policy-maker level, the **dissemination** of the results seems one of the most relevant ways to bridge the gap between scientists and decision-makers; for instance the European Maritime Days are unique occasions to publicize the results of the project.

Dr. Neal McDonough (Marine Board - ESF)

Regarding the **cross-cutting views between works packages**, the PERSEUS 1st Umbrella Workshop was very challenging in terms of partnership within several clusters. That represents big challenges because, even if this crucial task of integration is a little bit tricky and difficult, it is a very interesting aspect of the project.

Regarding collaboration between scientists and decision-makers, the PERSEUS community has to put the emphasis on **concrete and simple advices for stakeholders and decision-makers** instead of too complex scientific literature. The results of the project have to be presented in a suitable and usable way for policy-makers. That means to translate scientific analyses in "stakeholder language" to make the results usable immediately. That raises (inter)cultural issues to support dialogue between scientists and policy-makers: it is important to train scientists to policy-oriented projects, and to brief them about changes in institutional landscape in the two regions; this landscape becomes more structured thanks to the regional sea conventions.

WP6 is clearly a key WP since it should allow a **clear and simple interpretation of scientific results**. WP6 is quite complex in the PERSEUS Description of Work (DoW), but **the policy interface has to be simpler**. Regarding dissemination aspects, PERSEUS has a very good website, but there is a need for more documents available online: impact of good deliverables, notably from WP6.

Mrs. Tatjana Hema (UNEP/MAP - MEDPOL)

There is a place for improvement in terms of **links with regional sea conventions**, namely UNEP/MAP and BSC. In the policy domain, PERSEUS should run towards three main directions: (i) Good Environmental Status of the seas, targets, and descriptors (there are needs for data and researches, particularly regarding pollution, biodiversity, and coastal degradation); (ii) Integrated monitoring programme on descriptors; (iii) Main environmental objectives. It is a big challenge because data are missing or are not enough available. Furthermore, the members of the Advisory Board should agree to **review the main deliverables** of the project.

Prof. Halil Ibrahim Sur (Black Sea Commission)

PERSEUS should use the Black Sea Commission Reports where the results of the regional monitoring program BSIMAP (Black Sea Integrated Monitoring and Assessment Program) are being summarized, the State of Environment Reports produced from 2007-2012, as well as results from the SAP (Strategic Action Program). On the other hand the BSC will benefit from the PERSEUS results as well and close collaboration should be established.

Prof. Frédéric Briand (CIESM)

PERSEUS can be considered as an extension of the SESAME project (FP6). There are links between institutions and projects. For instance, CIESM was a "*compagnon de route*" of SESAME, and there is a follow-up thanks to PERSEUS. On the other hand, Dr. Vangelis Papathanassiou (project coordinator) is the CIESM's advisory for Greece. The **dissemination** is very important for the visibility of the PERSEUS results. The project has to take advantage of meetings and events, such as the regional meeting organized in Marseilles during the last week of October 2013 (invitation from French government). To better publicize the project, a "**one page paper**" should be sent to national governments (not only in the Website).

Dr. Jorge Luis Valdès (IOC-UNESCO)

PERSEUS project has a high relevance for other on-going processes sharing objectives with the MSFD. PERSEUS should follow up the UN World Ocean Assessment (http://www.worldoceanassessment.org).

For the WP6 socioeconomic outreach and to achieve a good cooperation between natural and socioeconomic scientists, as well as to use the natural scientific results efficiently, PERSEUS should consider the successful example of the IOC guideline: "Marine Spatial Planning: a step-by-step approach toward ecosystem-based management".

Mrs. Constança De Carvalho Belchior (EEA)

The representative of the EEA made some statements, indicating the Ecosystem Based-Management Tools Network and website as examples of existing toolboxes: http://www.ebmtools.org/.

PERSEUS results can support the Initial Assessments of the countries and therefore they should be distributed as soon as possible. In relation to the MSFD, EEA develop similar projects and PERSEUS should consider the Assessment reports produced by EEA, while the participation of non-EU countries in PERSEUS is important for the ENPI actions linked to the MSFD process and to the 'ecosystem approach'. A direct cooperation between PERSEUS and EEA could be achieved through the citizen-scientist campaigns. PERSEUS data, more specifically the metadata, should be sent to EMODNET.

Mrs. Nicoleta-Ariana Nastaseanu (EC)

Since the **integration of sciences into policies** can be considered as a social obligation, the DG Research brings a support to the policy process. Scientists have now the obligation to respond to urgent problems and issues of the society; it is why the WP6 goals are so ambitious. There is a **need for a better structuration** in order to facilitate links between the different clusters and WPs of the project. The scientific results should be translated and transmitted to stakeholders in order to put recommendations into practice. It is a long way, but the commitment is here; there is a willingness to achieve the results.

Dr. Evangelos Papathanassiou (HCMR), PERSEUS Coordinator

The **collaboration** between WPs as well as between scientists and decision-makers has to be improved in a balanced way, and there are several initiatives of collaboration both with other projects and with the regional sea conventions. In addition, **dissemination** is definitively a key-issue, and it is crucial to identify suitable and balanced ways to disseminate the information and results coming from PERSEUS. Publications on "what is missing" are particularly expected; the scientists have to take into account concerns from the Advisory Board. Since PERSEUS cannot filled-in all the gaps, it is important to identify what the gaps are, which of them can be filled-in, and to check the others.

2. Responses, synthesis and recommendations from the Second Advisory Board Meeting

The PERSEUS Adaptive Policy Framework is conceived as a support addressing policy-makers and stakeholders' knowledge and information related to the implementation of innovative policies. The meeting aims at collecting the advice of the members of the Advisory Board, as PERSEUS stakeholders at SES level, with regards to effective needs on the side of policy-makers.

The AMP Toolbox is conceived as a web-portal which assists policy-makers in structuring their problems and providing indications on where to find relevant tools and information for solving their problems. The range of techniques that could be used goes from an interactive tool that is able to choose/design different pathways for the design of the policy strategy and decisions according to the issues to be tackled, boundary conditions, and preferences, and to give advices for/guidance through the implementation and monitoring process, easing the policy-makers' way without reducing complexity.

2.1. Responses from the Advisory Board

- As an example for an approach to design a toolbox the IOC-UNESCO "*Step-by-Step Approach for Marine Spatial Planning toward Ecosystem-based Management*" (Ehler and Douvere, IOC-UNESCO, 2009) shows how to set up and apply MSP aiming at EBM, providing instructions and examples from policy experiences. The guide was successful in terms of dissemination; it has been translated into many languages.
- PERSEUS needs to consider that politicians are brilliant, and well able to choose the tool that best fits their preferences.
- PERSEUS has to *take care not to re-invent the wheel*; different databases already exist: EBM tools, guide to MSP planning, etc.
- The orientation when designing the toolbox should be towards problem solving, not towards the choice of the "right" tool.
- PERSEUS needs to enforce interaction with EMODnet and the regional sea conventions.
- Users of the AMP Toolbox will be the authorities in charge of the preparation of the programme of measures in the context of the MSFD implementation.
- PERSEUS has to prevent users from using 'decision support system' as 'press-button-machine' without identifying and understanding previously the priority issues.
- Finally, PERSEUS has to provide a tool that fits with the MSFD Article on the programme of measures. According to Art. 13: measures should be cost-effective and technically feasible; impact assessment including cost-benefit analysis should be carried out prior the introduction of any new measures[3].

2.2. Synthesis and recommendations from the Advisory Board

WP6 has to proceed towards a simple guide providing guidance for a step-wise approach. Indeed, the main concern of the Advisory Board members about the development of the AMP Toolbox was that WP6 plan could become too complex and detailed to be suitable and usable for stakeholders, and might also not really meet the need existing among stakeholders. The Advisory Board thus recommended that the AMP Toolbox should be limited to step-by-step guidelines for adaptive policy making,

[3] The MSFD ask socio-economic assessments of the programme of measures, mentioned in Article 13.3 as follows: "*When drawing up the programme of measures pursuant to paragraph 2, Member States shall give due consideration to sustainable development and, in particular, to the social and economic impacts of the measures envisaged. To assist the competent authority or authorities referred to in Article 7 to pursue their objectives in an integrated manner, Member States may identify or establish administrative frameworks in order to benefit from such interaction.*
Member States shall ensure that measures are cost-effective and technically feasible, and shall carry out impact assessments, including cost-benefit analyses, prior to the introduction of any new measure."
Socio-economic assessment of the measures criteria are as follows: Consideration of sustainable development; Socio-economic approach / assessment; Cost-effectiveness valuation; Technical feasibility; Impact assessment including cost-benefits analyses

in which each step has to be described in detail. The best example to illustrate this step-by-step framework was the UNESCO step-by-step guide for Marine Spatial Planning (2009). After having described every step, the AMP Toolbox should be improved not only with examples related to the implementation of the MSFD, but also with examples of tools which can be used in each phase. Finally, WP6 steps away from the original idea of a web-based tool-inventory of all PERSEUS tools, and steps more towards further development of the step-by-step approach/guide. As for a web-interface, the step-by-step plan is now presented online in an interactive format.

Finally, face-to-face meetings seem particularly adapted to the "Stakeholder Dialogue" activities within the PERSEUS project. The results of the first stakeholder meeting with the SES stakeholders allowed the gathering of very useful materials in terms of stakeholders' needs and expectations.

SECTION 2-COMMENTS AND RECOMMENDATIONS:

1. AMP Toolbox workshop with PERSEUS Advisory Board members

In order to implement and test the usefulness of the AMP Toolbox, as well as to improve it with the lessons learnt during the experimentation, as mentioned above, the tests have been performed at two levels: (i) Southern European Seas (SES) basin level (accounting for the Mediterranean and Black Seas); and, (ii) Pilot case level (including the Western Mediterranean, Northern Adriatic, Aegean Sea and Western Black Seas). In order to carry out these tests, the stakeholders platforms (SHPs) developed within Task 6.2 (Stakeholder dialogue) have been employed. These include four Pilot Case SHPs (one per each pilot case) and one regional or SES SHP, including principally the members of PERSEUS´s Advisory Board.

The tests at basin or regional level have been performed during important events related to the SES; and particularly during the PERSEUS´s annual General Assembly and Scientific Workshop (1-4 December 2014, Marrakech). To perform the test during this event, a specific workshop was organized with the members of the Advisory Board on the first day (1st of December at 18:30, after the General Assembly). However, during the General Assembly the "Progress and Way Forward" in each Work Package (WP) was presented and the members of the Advisory Board had the opportunity to make some suggestions and recommendations on the AMP Toolbox, as well as on the links between the AMP Toolbox (developed by WP6) and the work performed by other WPs. Consequently, although this report is focused on the organization and feedback obtained within the AMP Toolbox Workshop with the Advisory Board the relevant comments raised during General Assembly are also included in the Results section.

1.1. Planning the workshop

After some deliberation, it was decided to follow the agenda, as follows:

- ✓ General presentation of the workshop (Speaker: Didier Sauzade)
- ✓ Brief contextualization of the AMP Toolbox (Speaker: Mihalis Skourtos)
- ✓ Brief presentation on the structure, objectives and functionality of the AMP Toolbox (Speaker: Maialen Garmendia).

  This consisted of basically two sub-steps. Firstly, a brief power point presentation explained clearly the fundamentals and the structure of the AMP Toolbox to the participants. Secondly, an online tour was performed to show the way the AMP Toolbox works on the website.

- ✓ Presentation of an example or a storyline of an issue at Risk of not achieving or maintaining GES prepared by Maialen Garmendia, in order to see how the different steps, key activities and resources within the AMP Toolbox could be applied. Given the increasing problems and the lack of knowledge, Marine Litter was selected as example or storyline.

The preparation of this example was more difficult, since it required to: (a) compile information on the issue in question; (b) apply the different steps, key activities and resources to the issue in question; and, (c) present all the information in a friendly and easy-to-understand manner.

✓ Collection of the opinion and suggestions of the Advisory Board on the AMP Toolbox through a general discussion.

Accordingly, a "Briefing for testing the AMP Toolbox at Pilot Case level" was prepared to plan and disseminate the procedure for the testing phase.

It should be noted that participants of the Advisory Board were limited in number, but counted the most relevant members related to the Workshop topic, including the Chair of the Advisory Board, personally involved in a regional environmental association, representatives of the two Regional sea conventions as well one representative of the EEA.

1.2. Conducting the workshop

In Table 2, the members of the PERSEUS´s Advisory Board that attended to the workshop as well as the team of the PERSEUS project in charge of organizing the workshop are presented.

Table 2: Participants in the Workshop performed with PERSEUS´s Advisory Board at the PERSEUS´s annual General Assembly and Scientific Workshop (December 2014, Marrakech).

Members of the Advisory Board	
Prof. Fokion Vosniakos	Balkan Environmental Association (B.E.N.A), Chair of the Advisory Board
Ms. Tatjana Hema	Programme Officer UNEP/MAP, in charge of MEDPOL
Ms. Irina Makarenko	Pollution Monitoring and Assessment Officer of the Black Sea Commission
Dr. Claudette Spiteri	Deltares (Representing the European Environmental Agency)
Members of PERSEUS	
Dr. Didier Sauzade (key speaker)	Plan Bleu, WP6 leader
Dr. Maialen Garmendia (key speaker)	Basque Centre for Climate Change (BC3)
Prof. Mihalis Skourtos (key speaker)	Agricultural University of Athens (AUA), Project integration responsible
Dr. Julien Le Tellier (participant)	Plan Bleu, Task 6.2 leader
Prof. Areti Kontogianni (participant)	University of Western Macedonia (UWM), Task T6.4 leader
Dr. Margaretha Breil (participant)	Centro Euro-Mediterraneo sui Cambiamenti Climatici (CMCC), Task 6.1 leader
Dr. Aleksandar Shivarov (participant)	Black Sea NGO Network
Dr. Vangelis Papathanassiou (participant)	Hellenic Centre for Marine Research (HCMR), project scientific coordinator
Mr. Nikos Streftaris (participant)	Hellenic Centre for Marine Research (HCMR), project manager

The workshop was held on the 1st of December from 18:30 to 20:00 at the Hotel Kenzi Club Agdal Medina (Marrakech, Morocco).

The workshop was carried out according to the agreed flow, as follows:

1. General presentation of the workshop (5 min): Didier Sauzade introduced the workshop and made the presentations.

2. Brief contextualization of the AMP Toolbox (10 min): Mihalis Skourtos put the AMP Toolbox in context, making emphasis on the need of Adaptive policies and decision-making tools to cope with and manage future changing environmental issues.

3. Brief presentation of the AMP Toolbox (15 min): Maialen Garmendia gave a brief presentation of the AMP Toolbox. Firstly, the AMP Toolbox was presented; and, special emphasis was made on what is the AMP Toolbox, for whom and why has been developed and how it is applied. Secondly, the presenter led an online tour through the AMP Toolbox in order to present and consult the structure and functioning of the Toolbox.

4. Presentation of an example and a storyline (20 min): Maialen Garmendia presented the problem of Marine Litter which is potentially at risk of failing to achieve or maintain the GES in the Mediterranean and Black Seas for 2020-2030 time horizons. Using the case of the Marine Litter as an example, the application of different steps, key activities and resources was presented.

5. Collection of the opinion and suggestions of the members of the Advisory Board (40 min): An open discussion was performed among all the participants in order to make general comments and suggestions. These suggestions were noted by the PERSEUS participants. Moreover, the members of the Advisory Board also had the opportunity to make this kind of suggestions along the whole process.

Photos 1 and 2: AMP Toolbox Workshop performed with PERSEUS Advisory Board (Marrakech, Morocco, 1st December 2014)

1.3. Results

This section introduces the comments of the members of the Advisory Board that are detailed according to the different characteristics of the AMP Toolbox to be improved. These comments would be particularly valuable to perform the future improvements (details in D6.14).

Comments on the support:

Several requirements have been pointed out by the stakeholders consulted, notably the importance to add a glossary (Prof. Fokion Vosniakos) but also to prepare guidance documents and to organize training sessions to use efficiently the AMP Toolbox (Ms. Tatiana Hema). Indeed, training appears to be necessary in order to avoid time-consuming and to target the information rapidly (Ms. Irina Makarenko).

Comments on the appearance style and design:

The AMP Toolbox webpages provide an important number of scientific information and references that are on one hand very useful for the user but on the other hand could discourage and make difficult the appropriation of the tool.

Comments on the scope:

The AMP Toolbox is a repository of guidelines and resources to develop adaptive marine policies in the Mediterranean and Black Seas. It is important to remind that this tool assists the user by providing recommendation and support in decision-making, and does not have to be considered as a press button machine providing response and solutions.

Furthermore, some clarifications are required with regards to the level of application (i.e. local, national or regional) of each tool or method used (Ms. Tatiana Hema, Prof. Fokion Vozniakos). A specific introduction making emphasis clearly on scope and targets should be included in the webpages of the toolbox. Coastal degradation should additionally be taken into account as the actual scope seems to apply only marine degradation. (Ms. Tatiana Hema).

Prof. Fokion Vozniakos suggested also to organize a side event such as summer school which is a positive initiative to show and train civil society.

Comments on the content:

• This part of the discussion highlighted an important suggestion to improve the AMP Toolbox, which is the development of examples in order to illustrate the steps and to reach the MSFD descriptors. Important efforts have been produced to develop examples notably through the marine litter case but should be complemented with additional ones (Ms. Tatiana Hema).

• Besides, it is pointed out that two thirds of the Mediterranean Countries are not EU Members States and have not to enforce the MSFD. The Ecosystem Approach (EcAp) initiative is rightly mentioned but it is only a part of the environmental programmes performed under UNEP/MAP (Ms. Tatiana Hema).

• A discussion was opened about the users targeted for the toolbox. Prof. Vokion Fozniakos stated that the toolbox needed to be understandable and useful for a broader group of users who do not have a scientific knowledge or scientific background. Moreover, he shared his interrogation on how a "poor" mayor could use and apply the toolbox, in particular in case of marine accident. Didier Sauzade reacted to this questioning by reminding the discussion held during the previous Advisory Board in Barcelona. Indeed it was stressed that the toolbox was elaborated in order to implement the MSFD through the Programmes of Measures at national regional scales.

Other issues:

The follow-up of the project has been discussed by the participants, in particular the management and update of the AMP toolbox after the end of the project (Ms. Tatiana Hema, Prof. Vokion Voszniakos).

In addition, a lack of sufficient knowledge-base to assess the issues correctly has been considered by Dr. Claudette Spiteri. She added that further collaboration was necessary within the project since the work performed within Work Packages 1 and 2 was of great interest. Prof. Fokion K. Vozniakos agreed with this point and insisted on the collaboration and synergies between WPs that need to be developed in order to avoid overlapping.

Finally, it is proposed to use the PERSEUS project and in particular the AMP Toolbox as a tool helping to bridge the gaps existing in documents and reports of the Black Sea Commission (Ms. Irina Makarenko).

2. Interview with Luis Valdés (IOC)

2.1. Conducting the interview

The interview took place at the plenary room of the International Conventions Centre of Barcelona (Spain) on the 17th of November 2014 from 11:15 to 11:55. This interview was held during the celebration of the 2nd International Ocean Research Conference (IORC) where Luis Valdés was part of the International Organizing Committee since he is actually the Head of Ocean Sciences at the Intergovernmental Oceanographic Commission of UNESCO. Accordingly, as a consequence of his limited availability, the interview was direct and concise, including three steps. The first two steps (i.e. presentation of the toolbox and of the example) took place during the interview. In addition, although Luis Valdés had the opportunity to ask some questions and some discussion rose during the interview, the third steps, i.e. the collection of his opinion and suggestions, was performed online through a questionnaire.

1. Brief presentation of the AMP Toolbox (15 min): Maialen Garmendia gave a brief presentation of the AMP Toolbox. For this purpose, firstly, the AMP Toolbox was presented; and, special emphasis was made on what is the AMP Toolbox, for whom and why has been developed and how it is applied. Secondly, Maialen led an online tour through the AMP Toolbox in order to present and consult the structure and functioning of the Toolbox.

2. Presentation of an example or a storyline (20 min): Maialen presented the problem of Marine Litter which is potentially at risk of failing to achieve or maintain the Good Environmental Status in the Mediterranean and Black Seas for 2020-2030 time horizons. Using the case of the Marine Litter as an example, the application of different steps, key activities and resources was presented.

3. Collection of the opinion and suggestions through an online questionnaire: The questionnaire contains two different sections, one with closed format questions (i.e. Likert questions) and the second one with open format questions (i.e. General comments and suggestions). The Likert questions are useful since they help you assess how your respondents feel towards the AMP Toolbox, based on a scale of five levels (from strong disagreement to strong agreement) regarding the different components of the AMP Toolbox (i.e. Scope, Content, User interactions, Technical aspects and Support). Finally, open questions were provided in the questionnaire in order to encourage participants to give their comments and suggestions regarding the different components of the AMP Toolbox.

2.2. Results

In general terms, Luis Valdés underlined the potential utility of the AMP Toolbox for the end-users. He also mentioned that although some aesthetic aspects and contents could be improved, that the AMP Toolbox was advancing adequately.

From his point of view, regarding the **appearance style and design**, the toolbox is comprehensive and attractive. Though, on his opinion, the **scope** of the tool is more targeted to environmental managers but not for policy-makers, since the level of complexity demand a good formation and background on environmental management. In addition, he found the framework and **contents** adequate, but he missed references and information on the Marine Spatial Planning step-by-step guidelines from UNESCO; and, suggested to include them in the list of further readings.

Finally, with regard to the **user interactions** and **technical aspects**, he pointed out that the navigation through the different submenus is easy and the links reliable; but that he could not be precise in some questions since he did not checked all the links to see if there are bugs or not.

3. PERSEUS workshop at the International Black Sea Day celebration

3.1. Conducting the workshop

The Permanent Secretariat of the Bucharest Convention (BSC PS) organized the International Black Sea Day meeting on 3rd November 2014 in Istanbul. The fifty-five participants included the six Black Sea Commissioners, the BSC PS Executive Director, the General Secretariat, national representatives, observers and guests.

PERSEUS project was represented by a team of eight scientists who actively helped in the discussion that followed and assisted the delegations to express their opinion on the feedback questionnaire that has been especially developed for this reason.

The Coordinator, Dr. Vangelis Papathanassiou, presented the scope of the PERSEUS project during the early afternoon to the 13 officials from the Black Sea countries and about 25 guests and observers. EMBLAS, MISIS and IRIS-SES project were also presented. After the project presentations, PERSEUS had a 2.5-hour workshop with the delegations, guest and observers on the AMP Toolbox. Prof. Michalis Skourtos made the on-line presentation of the AMP Toolbox together with Mrs. Emily Koulouvaris (WP9 leader). Prof Skourtos was also the facilitator of the lively and interactive discussion with the Commissioners and guests.

The meeting was a first real trial of the experimentations that PERSEUS has planned in the high level policymakers.

The workshop was divided into four main steps:

1) A Power Point Presentation (10 minutes) to document the AMP Toolbox necessity to assist policymakers and its potential use. Interesting subjects for discussion were also introduced concerning how science can support policy making and at what level this support could take place. This was carried out by the facilitator.

2) Presentation of the AMP Toolbox (30 minutes), carried out by the facilitator, where a general overview of the AMP Toolbox was provided. The 5 steps of policy making were explained, the notion of adaptive policy was recognized, the AMP Toolbox general structure was explained, specific tools were visited and its use was shown. Finally information about the resource base and its use was given together with explanations on how specific problems could be addressed by its use.

3) Hands-on with the AMP Toolbox / experimentation (60 minutes), where each participant was asked to explore the different sections of the toolbox (having in mind one specific policy issue of their choice), and take notes in the provided template for further discussion. Participants were encouraged to comment and interact regarding specific issues concerning policy making, AMP Toolbox relevance, etc. A fruitful discussion took place raising several comments and suggestions from the part of participants.

4) Evaluation of the tool (30 minutes). One or two representatives from each Delegation were interviewed by PERSEUS WP6 scientists. The evaluation of the AMP Toolbox was implemented by filling the questionnaire either online, or on the available hard copy.

The session was structured as a round table. The introduction followed the sequence of the five policy steps pinpointing key aspects. Then participants were prompted to suggest a marine issue at risk for the Black Sea environment that they consider of special importance. Participants were then invited to take a 'tour' through the AMP Toolbox having in mind the marine issue(s) we agreed upon. The facilitator urged them to think the problem as follows: would the availability of such a tool had helped them in the past to address the issue? Will it help in the future? In what sense would

the AMP Toolbox be useful (by providing information, structuring the problem, showing solutions, providing access to tools and databases, alerting about data gaps, public deliberation, expert involvement, etc.)?

PERSEUS scientists, acting as supporters to the facilitator, took notes having in mind the basic questions of the evaluation protocol. As the end of the discussion each participant was asked to fill the online evaluation Protocol.

Photo: Black Sea High Policy Level Meeting, Istanbul, 3rd November 2014.

3.2. Results

We present in this section the main topics discussed and give a first assessment of relative weights for the AMP toolbox.

A first, **general remark** pointed to the fact that the AMP toolbox is not meant to be "something that opens the door for ready-made solutions; it's rather something that helps you digest the problems… it is not a single tool, one should analyze/explore what specific tools are available already." A much sought after information referred to examples or cases of best practices.

Referring to **the scope** of the AMP Toolbox participants suggested that the tool could be highly useful for a broad audience and particularly for policymakers. They indicated that the tool should be oriented not primarily to national level because most of environmental problems are trans-national. For example, they mentioned the issue of fishing quotas: although they are set in Black Sea, there are some countries that are not complying with them. Accordingly, the importance of examples was underlined. On the other hand, three participants commented that the AMP Toolbox could not be described as real toolbox – rather a database, a library or a dictionary.

In addition, although the respondents generally agreed on the fact that the toolbox is useful to policy-makers involved in MSFD implementation, they found the toolbox ineffective for other target groups, as a consequence of the way the features are presented; low comprehensiveness, low motivation were also mentioned together with not clear structure.

Referring to **the content of the AMP Toolbox**, a participant asked for incorporating further information in the knowledge base. He also suggested that the current structure is not obvious to the user hiding its potential. More examples are needed explaining better how someone could use the tool.

Referring to **the ability of the AMP Toolbox** to accommodate user interactions in a friendly and understandable way, most participants expressed a critical view emphasizing that it could had been categorized and organized in a more efficient manner. This might have been the result of a time intensive and, unavoidably, rapid journey through the layers of information available in the toolbox, which did not allow the participants get a full grips of its structure. Nevertheless, it was noted that user friendliness might differ from person to person because of the different background of the user.

Referring to the **Support** provided by the AMP Toolbox to the user, again the participants stressed the lack of contact information or support form at the current version of the tool. It could be useful to address more clearly the purpose of the AMP Toolbox and include some general guidelines to explain what the user is going to found in the toolbox in order to understand better its contents. They asked for a more functional way to provide for search within the tool and suggestions, e.g. a button for support.

In addition to the specific remarks on the AMP Toolbox, participants suggested ways to improve its **functionality and user friendliness**. More than one suggestions concerned adding support material (guidance, roadmap of the site, suggestions form) whereby the provision of practical, fully policy relevant examples was strongly and repeatedly emphasized. Other concrete actions suggested were:

- Create a video tutorial showing how to use the tool with one example.
- Breakdown a current policy into the different steps in order to illustrate the steps.
- If addressing policymakers (high level) much shorter texts (executive summary) would be needed

Although the content was rated as very useful, it was suggested to link the AMP Toolbox to Google in order to supplement its potential of resource search and recommendations. Nevertheless, the proposal by three participants to create a section in the AMP Toolbox where a policymaker asks about an environmental issue/problem and the toolbox provides an answer, reveals the necessity to better explain at the forefront the intended role and function of the toolbox. Last but not least, most of the suggestions culminated to the need of providing support material and assistance to facilitate acquaintance and familiarity with AMP toolbox.

4. AMP Toolbox workshop for the Adriatic Sea: A role play with sub-regional stakeholders

As mentioned above, in order to test effectiveness and usefulness of the AMP Toolbox, as well as collecting valuable advices and recommendation by potential end-users for its improvement and fine tuning, a series of tests were organized by the PERSEUS researchers at two levels (i) Southern European Seas (SES) basin level (accounting for the Mediterranean and Black Seas); and, (ii) Pilot case level (including the Western Mediterranean, Northern Adriatic, Aegean Sea and Western Black Seas).

Within the marine sub-region of the Adriatic Sea a technical workshop including a Role-Playing Game (hereafter: RPG) with international stakeholders (i.e. participants coming from North Adriatic countries as Italy, Croatia and Slovenia) was held on 3rd of June in Trieste, Italy. This meeting, and related RPG, was organized for testing the AMP Toolbox by simulating its use for the development, implementation and monitoring of a marine policy, applied to the issue of marine litter, specifically focused on the marine area of concern (i.e. Northern Adriatic sea). Given the increasing problems and the still considerable lack of knowledge, marine litter was selected as example for simulating the development and implementation of marine policy.

The game allowed getting focused discussions on each step of the APF and the linked tools, methods and resources available in the Toolbox for their implementation during adaptive policy making processes. More specifically, by means of the RPG we tried to answer to the following key questions:

- How will the APF toolbox support adaptive policies?
- Does it really lead to more adaptive programs of measures?
- Is this what stakeholders are waiting for?
- Does it respond to their needs?
- Are there any comments or suggestions for its improvement in order to facilitate its use by any policymakers involved in the implementation of the MSFD?

Most of attendees to the workshop have shared, with the team of the PERSEUS project, their point of view on adaptive policies specifically applied for the marine litter issue, and valuable recommendations for improving and fine tuning the AMP Toolbox in a policymaker oriented perspective.

4.1 Planning the workshop

The workshop was structured in a three-stage process as follows:

- Firstly, brief power point presentations aimed at introducing the participants to the PERSEUS project and to the activities carried out within WP6 for the development of the AMP Toolbox. Moreover, **a short introduction concerning the marine litter issue** was provided by a participant representative of the DeFishGear project (http://www.defishgear.net/).

- Secondly, the **RPG** was implemented in order to put participants in decision makers' shoes during the simulated development, implementation and monitoring of adaptive policies aimed at facing marine litter issue.
- Thirdly, the workshop was focused on **discussion** with all the attendees about strengths and weaknesses of the AMP Toolbox.

The workshop was planned for being mainly focused on the second and third stage of this process (i.e. RPG and linked discussions), in order to both actively involve the invited stakeholders on the use of the toolbox by mean of the RPG, and to collect their comments and recommendations for future improvements. Accordingly, in order to facilitate the interaction with them during the RPG, and take note of their comments during the game, specific supporting materials were prepared.

First of all, six different role cards representing different categories of stakeholders (i.e. industrialists of plastic sector, marine experts/scientists, policymakers directly involved in marine management and planning, and NGOs) were arranged in order to direct the behaviour, points of view, objectives and interests to be promoted and defended by the participants during the simulated development of adaptive policies for the marine litter issue in the Adriatic sea.

Figure 3: Role cards prepared for implementing the RPG with stakeholders of the Adriatic Sea

Moreover, an empty DPSWR (i.e. driver-pressure-state-welfare-response) scheme was prepared in order to involve all the stakeholders in its compiling, according to their predefined role played in the game. Finally, a step by step focused questionnaire was set for this workshop in order to get a judgment, by all the participants of the RPG, on the following questions:

- ✓ The step is a useful guide for the MSFD implementation, the target is clearly defined and explained?
- ✓ All the important and policy-relevant issues are covered in a comprehensive manner?
- ✓ The information provided is clear, concise, well written and valuable?
- ✓ What is missing in this step?

Comments and suggestions provided by the attendees are summarizes in section 4.3.

4.2 Conducting the workshop

Local stakeholders who attended to the workshop and RPG as well as the team of the PERSEUS project in charge of organizing the workshop are presented in Table 3.

Table 3: Participants in the Workshop performed with stakeholders of the Northern Adriatic Sea (3rd June 2015, Trieste, Italy).

Local stakeholders participating to the workshop and RPG	
Dr. Carlo Franzosini	Marine Protected area of Miramare, Shoreline Soc. Coop, Italy
Dr. Andreja Palatinus	Institute for Water of the Republic of Slovenia –IWRS-, Slovenia
Dr. Isabella Scroccaro	ARPA Friuli Venezia Giulia, Italy
Dr. Mirta Smodlana Tanković	Center for marine Research, Croatia
Dr. Alessandro Crise	National Institute of Oceanography and Experimental Geophysics –OGS-, Italy
Dr. Donata Canu	National Institute of Oceanography and Experimental Geophysics –OGS-, Italy
Dr. Cosimo Solidoro	National Institute of Oceanography and Experimental Geophysics –OGS-, Italy
Dr. Svitlana Liubartseva	Centro Euro-Mediterraneo sui Cambiamenti Climatici (CMCC)
Team of the PERSEUS project organizing the workshop	
Dr. Margaretha Breil (key speaker)	Centro Euro-Mediterraneo sui Cambiamenti Climatici (CMCC)
Dr. Valentina Giannini (RPG moderator)	Centro Euro-Mediterraneo sui Cambiamenti Climatici (CMCC)
Ms. Elisa Furlan (participant)	Centro Euro-Mediterraneo sui Cambiamenti Climatici (CMCC)
Dr. Silvia Torresan (participant)	Centro Euro-Mediterraneo sui Cambiamenti Climatici (CMCC)

The workshop was held on the 3rd of June from 10:30 to 16:30 in the OGS offices in Trieste (Trieste, Italy). The workshop was carried out according to the aforementioned three-stage process, as follows:

- o The first phase of the workshop was focused on the presentation of the PERSEUS project and more specifically activities carried out within the WP6 for the development of the AMP Toolbox. This stage has included the following short presentations:

- General presentation of the workshop (10 min): Margaretha Breil introduced the workshop with its phases and main objectives of the RPG;
- Introduction to the PERSEUS project (20 min): Margaretha Breil gave a brief presentation of the work packages, main objectives and results gained so far within the project.
- Introduction to the marine litter issue (10 min): Andreja Palatinus from the DeFishGear project introduced the project with its partners and main activities aimed at producing policy recommendation on the status of marine litter and proposals on how to solve the problem, working with fishers and institutes.
- Brief contextualization of the concept of Adaptive Policy Making and the PERSEUS AMP Toolbox (20 min): Margaretha Breil presented the AMP Toolbox giving a special emphasis on what is the AMP Toolbox, for whom and why has been developed and how it is applied by mean of an interactive learning cycle.

o The second phase was focused on the **implementation of the RPG** aimed at involving invited stakeholders in a simulated policy-making process for the development, implementation and monitoring of adaptive policies aimed at facing marine litter issue (3,5 hours). Most time of the workshop was devoted to this phase in order to collect recommendations and advices on the AMP Toolbox provided by all the attendees during the simulated decision making process.

o The third phase focused on an open **discussion** with all the participants in order to collect their overall recommendations and suggestion for the improvement and fine-tuning of the AMP Toolbox in a potential end-user perspective (30 min).

The following section introduces how the RPG was applied to the different steps of the PERSEUS APF and the main results gained during discussion and interaction with stakeholders. These comments appear particularly valuable and useful to define the future improvements and fine-tuning of the Toolbox in a policymaker perspective.

4.3 The RPG: results and comments for improving the AMP Toolbox

The RPG revolves around the designing of a policy for marine litter in the Northern Adriatic Sea using the PERSEUS AMP Toolbox. During the game, stakeholders were requested to draw up, implement and monitor marine policies by applying the specific set of tools and resources provided by the Toolbox.

At the end of each phase of the game, linked with five steps of the adaptive policy cycle, all the participants were asked to complete a questionnaire in order to collect their comments and suggestions for improving the toolbox.

The RPG has started with the assignation of roles for the game to all the participants. Accordingly, role cards were distributed to the players in order to put them in decision makers' shoes. Attendees took over six different roles which were proposed by the participants, and expressed their expectations with respect to a tool guiding

through an adaptive policy making process. Six roles have been assigned to the invited stakeholders as follows:

- ✓ Expert: scientist/researcher ;
- ✓ Responsible for the regional department of Environment;
- ✓ Councilor responsible for fishing;
- ✓ Mayor in a coastal community urbanization and services;
- ✓ Non-governmental organization;
- ✓ Industrialist plastic sector.

Each role was characterized by a specific decision making authority, responsibilities and objectives and interests to defend during policy-making processes which can affect the represented community.

Roles assignation was followed by the step by step implementation of the adaptive policy cycle using some of the tools and resources provided by the AMP Toolbox.

Step 1: Setting the scene

This first phase was focused on tools and methods included in the AMP Toolbox for supporting the implementation of the following two key activities:

- o Gather information and determine the current situation taking into account the geographical area of concern and issues to be faced by the policy.
- o Select people (i.e. experts and stakeholders) to be involved in the different stages of the policy cycle.

As far as tools for analyzing the current situation are concerned, during the RPG the DPSWR framework was compiled through a wide brainstorming with all players. Main aim of this task was to analyze the causal interactions between society and the environment and thus linking the effects that socio-economic uses of the marine environment can have both in the marine ecosystems and human wellbeing. Figure 4 represents the final framework elaborated during this brainstorming.

This step of the RPG allowed to explore the different perspectives of all players, identifying main environmental impacts produced by marine litter (e.g. decrease of fish stock and quality, impacts on human health due to bioaccumulation) as well as repercussions for the socio-economic sector (e.g. impacts on income for fishing and plastic industries).

According to the points of view expressed during the RPG, consumption and production of plastics of poor quality were identified as the main drivers of marine litter in the Adriatic Sea, followed by the growing urbanization of coastal areas and the increasing maritime traffic. Moreover, special emphasis was given to the selection of the potential responses for facing impacts produced by the marine litter. While players embodying the experts (i.e. scientist/researcher) gave more importance to the transfer of money for research purposes and to environmental education and training for young generations; players representing an environmental NGO highlighted the importance of defining new and more stringent regulations for plastic producers and of improving the quality of plastics introducing more ecological ones.

Finally, also players embodying councilor responsible for fishing underlined the need of finding ways to compensate fisherman for income losses due to decreases of fish quality and stock.

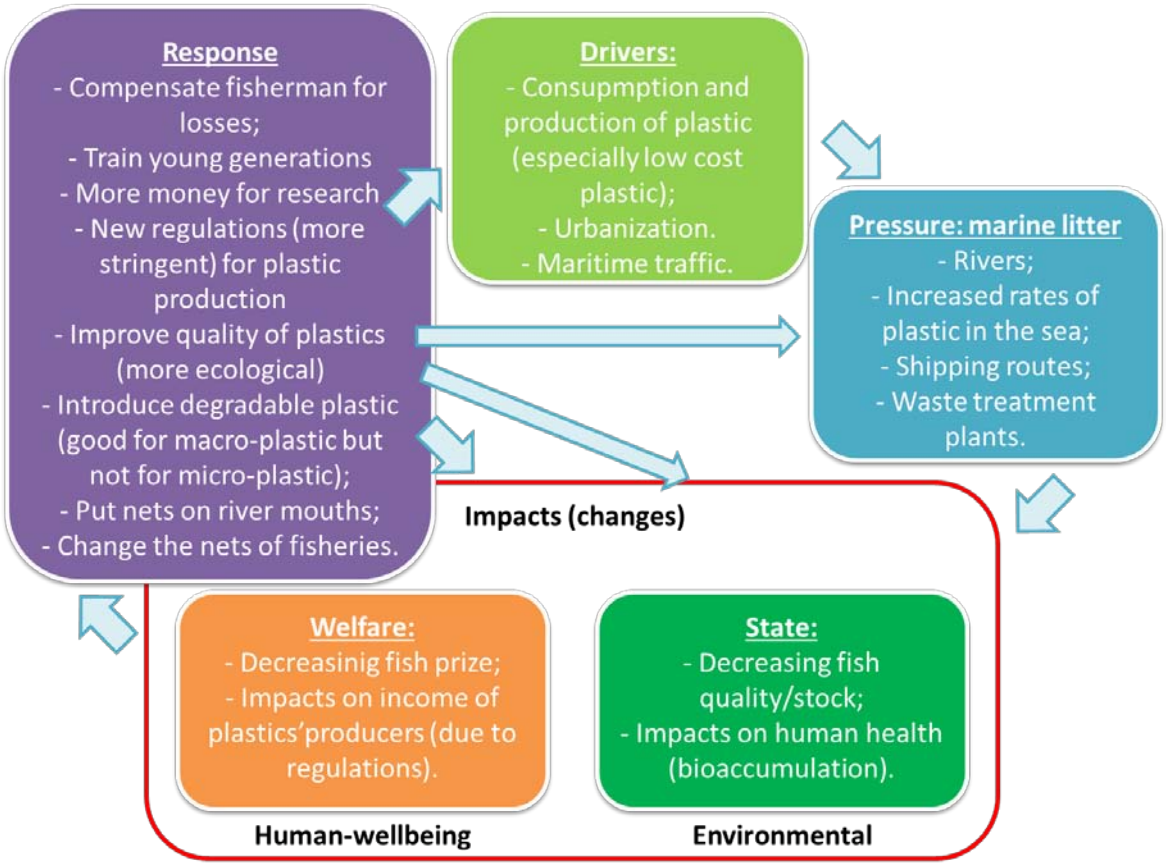


Figure 4: DPSWR framework filled in with participants to the RPG for the marine litter issue

As far as tools for selecting and involving stakeholders are concerned, attendees to the RPG have highlighted the need of improving the AMP Toolbox by including more guidelines and tools aimed at supporting this step and thus simplifying the development of a mutual understanding and the definition of principles and goals for policy design and implementation.

Step 2: Assembling a basic policy

This second phase was focused on the selection of measures for marine litter by exploring 'database of measures' included in the resources of the AMP Toolbox. Several measures (e.g. deposit refund, use of colored nets, implementation of a plastics' net at river mouth) were discussed by comparing costs and benefits based on several criteria suggested by the organizers (e.g. potential to be fair and equitable, avoids unacceptable social impacts, lead to efficient pricing).

At the end of the exercise, attendees to the RPG expressed some comments and recommendations for improving the AMP Toolbox. In particular, they suggested to include in the portfolio of measures, examples from all seas in order to account for cultural and environmental differences. This is an important issue to be considered because, several measures that are viable in Northern Seas are often not viable for the whole Mediterranean Sea (e.g. 'Fishing for litter', measure developed for the Baltic Sea does not work in the Mediterranean Sea, as participants reported).

Step 3: Making policy robust

During the third phase tools and scenarios for developing policies robust against future expected and unexpected conditions have been presented (e.g. contingency plan, IMAGE and "End to End" Models, risk assessment methodologies).

The following open discussion with participants was focused on the importance of using scenarios, data provided by models and monitoring systems for facing uncertainty linked with dynamic ecosystems such as marine areas and changes over time. Moreover, players to the RPG underlined the need of applying indicators' based approaches during policies' design and implementation.

Step 4 and 5: Implementing the policy/strategy and perform adaptive actions

Final phases (4 and 5) were focused on the simulated implementation of the selected measures and participants predicted their outcomes hypothesizing where do we stand in 2020 in order to address potentially emerging issues and trigger important policy adjustments.

During this discussion participants to the RPG underlined need to involve, since the early stage of the adaptive policy making process (i.e. step 1), a solid base of stakeholders in order to have a valuable support for the implementation of the right measures.

At the end of the RPG an open debate was performed among all attendees in order to make general comments and suggestions for the improvement and fine tuning of the overall AMP Toolbox. These suggestions were noted by the team of the PERSEUS project and are summarized as follows:

- ✓ The issue of "who will use this"? was clearly discussed: an underlying hypothesis was that in some cases policy makers actually take decisions without consulting any high level technicians, who were actually those envisaged as potential users; on the other side, policymakers are not able to dedicate as much time as needed to a tool like the AMP toolbox.
- ✓ Add a Step 0 in the APF devoted to the identification of the public authority which has the mandate on the specific issue linked with the management of marine regions.
- ✓ Resources section of the AMP Toolbox, including, for instance, the database of tools and methods and the inventory of measures should be linked to each step of the APF and not only to the right of the web-page.

5. Analysis of the comments and recommendations formulated by the stakeholders

The following table proposes an analysis of the comments provided by the stakeholders throughout the consultations workshops and Advisory Boards, with regards to the improvements formulated for the Adaptive Marine Policy Toolbox. This analysis has been conducted through the Strengths Weaknesses Opportunities Threats (SWOT) approach which is useful to apprehend the work achieved for the elaboration of the stakeholder platform and the Adaptive Marine Policy Toolbox, notably by analyzing the elements that reflect positive characteristics or subject to improvements.

In general, SWOT analysis can be carried out for a project. It involves specifying the objective of the project and identifying the internal (strengths and weaknesses) and external (opportunities and threats) factors that are favorable and unfavorable to achieve that objective. Once completed, the analysis determines the components that may support the project in accomplishing its objectives and the obstacles that can be overcome or minimized in order to meet identified outcomes.

In the present case, the comments formulated have been assessed according to their relevance, their advantages or disadvantages and have been identified for each of them, whenever possible, opportunities including potential actions to be implemented.

Expectations identified by the Southern European Seas Stakeholder Platform and stakeholders consultation process						
First stakeholder meeting and Advisory Board- Barcelona-2013 (preliminary step before the development of the AMP Toolbox)		**Strenghts**	**Weaknesses**	**Opportunities**	**Threats**	**Comments / Further actions**
	• Collection of stakeholders needs and expectations in terms of new knowledge, data and decision support tools expected for the implementation of the MSFD.			X		Discussion on the integrated nature and policy-oriented aspects of PERSEUS including the collaboration between scientists and stakeholders.
Comments on the role of PERSEUS by the stakeholders	•PERSEUS project can support the coordination and the follow-up of what has been done in EU Member States in terms of implementation of the MSFD.			X		Conform to the AMP Toolbox specification
	•One of the strength of the project identified is to analyse cumulative impacts- both anthropogenic and natural- as important gaps need to be filled in this field.			X		Conform to the AMP Toolbox specification
	•The cross-regional approach (Mediterranean and Black Sea) is estimated as relevant because it merges different scales, from basin (regional) to the pilot cases (subnational/local), with an equal treatment for all the studied area. PERSEUS has to pay attention to the regional sea conventions (i.e. UNEP/MAP and BSC)			X		Conform to the AMP Toolbox specification
Second stakeholders' meeting and Advisory Board-Marrakech-2014						
AMP TOOLBOX Collection of opinions on the different components and aspects of the AMP Toolbox						
General comments	• The PERSEUS Adaptive Policy Framework is conceived as a support adressing policymakers and stakeholders' knowledge and information related to the implementation of innovative policies.			X		Conform to the AMP Toolbox specification
	• The AMP Toolbox is conceived as a web-portal which assists policy-makers in structuring their problems and providing indications on where to find relevant tools and informations for solving their problems.			X		Conform to the AMP Toolbox specification
Support of the tool	• It should be an interactive tool that is able to choose/design different pathways for the design of policy strategy and decisions according to the issues to be tackled, boundary conditions, preferences, and to give advices for guidance through the implementation and monitoring process, easing the policy-makers 'way without reducing complexity.	X				The interactive aspect of the tool has been taken into account in the development of the tool as it provides a policy cycle in five steps and gives the opportunity for the user to collect the information and experiment the key activities to each corresponding step.
	•Importance to add a glossary, to prepare guidance documents and to organize training sessions to use efficiently the tool.		X			A glossary and guidelines have been included in the toolbox in order to assist the user and encourage an efficient exploration of the tool.
Appearance style and design	• AMP TB webpages provide an important number of scientific useful information but could discourage the user and make difficult the appropriation of the tool.	X	X			A glossary and guidelines have been included in the toolbox in order to assist the user and encourage an efficient exploration of the tool. Additionally, PERSEUS project has planned several training workshop and summer schools to assist the stakeholders in exploring the knowledgebases and completing key activities.
	• The tool should be designed toward problem solving and not toward the choice of the right tool.	X				Conform to the AMP Toolbox specification
	• Users of the toolbox will be the authorities in charge of the preparation of the programme of measures in the context of the MSFD implementation.			X		Conform to the AMP Toolbox specification
Scope	•The tool assists the user by providing recommendation and support in decision-making, and does not have to be considered as a press button machine providing response and solutions.	X				Conform to the AMP Toolbox specification
	•Some clarifications are required with regards to the level of application of each tool or methods used; and a specific introduction on scope and targets should be included in the webpages of the toolbox.	X				Guidelines have been prepared and included in the introduction of the first page of the toolbox, and a specific introduction is also included in each webpages steps.
	•Coastal degradation should also be taken into account as the actual scope seems to apply only marine degradation.				X	The scope of the Toolbox is the one of the PERSEUS project and is focused on the marine environement (coastal awaters and open ocean)
	• It is also suggested to organize a side event such as summer school which is a positive initiative to show and train civil society.			X		The AMP Toolbox has been / will be presented or demonstrated during several events with the participation of the civil society: WP5 workshop in the non EU countries, European maritime days, 2015 Summer school in Athens, Stakeholder meeting in Malta, MED POL Focal Point Meeting...

	•The AMP TB should be limited to step-by-step guidelines for adaptive policy making in which each step has to be described in detail. See the UNESCO step-by-step framework for Marine Spatial Planning.	X				Conform to the AMP Toolbox specification. The UNESCO step-by-step framework for Marine Spatial Planning has been a valuable source of inspiration for the design of the AMP Toolbox.
	• The toolbox should be improved not only with examples related to the implementation of the MSFD but also with examples of tools which can be used in each phase.		X			The example of the marine litter has been developed in order to illustrate concretely the steps and to provide to the user a detailed insight of the key activities and resources of the AMP Toolbox. Additionnaly, different real cases in order to implement adaptive policies have been developed under the resource page, example's section.
	• It is important to develop examples in order to illustrate the steps and to reach the MSFD descriptors. Important efforts have been produced to develop examples notably through the marine litter case but should be complemented with additional ones.	X	X			The example of the marine litter has been developed in order to illustrate concretely the steps and to provide to the user a detailed insight of the key activities and resources of the AMP Toolbox. Additionnaly, different real cases in order to implement adaptive policies have been developed under the resource page, example's section.
Content	• Two thirds of the Mediterranean Countries are not EU Member States and have not to enforce the MSFD. Therefore, the Ecosystem Approach (EcAp) initiative is rightly mentioned but is only a part of the environmental programmes performed under UNEP/MAP.	X	X			The protocols of the Barcelona convention dealing with marine pollution (mostly the Land Based source Protocol) and the Med POL programme are mentionned in the Legal instruments data base of the Knowledge base. However this aspect could be emphasied in the introduction page of the AMP Toolbox.
	• The toolbox needs to be understandable and useful for a broader group of users who do not have a scientific knowledge or scientific background. The case of a "poor mayor" has been mentioned, however the discussions held during the previous advisory board have been reminded, notably the fact that the toolbox was elaborated to implement the MSFD through the Programme of Measures at national and regional scales.	X	X			The scope of the AMP Toolbox is primarily the elaboration of policies in the framework of the MSFD, at subregional scale. However, the AMP Toolbox can be used at any scale, with a benefit to be assessed by the user.
Other issues	•It is proposed to use the PERSEUS project and in particular the AMP Toolbox as a tool helping to bridge the gaps existing in documents and reports of the Black Sea Commission.			X		Could a valuable use of the AMP Toolbox.
PERSEUS Workshop - Black Sea Day Celebration Presentation of the toolbox by the PERSEUS team to a high level panel of policymakers						
General remarks	•The tool is not elaborated in order to provide ready-made solutions but to help the user to "digest the problems".	X				Policy making is not a push button activity!
	•The lack of contact information or support form at the current version of the tool is pointed out.		X			Has been listed in the AMP toolbox improvements
	• It could be useful to include some general guidelines to explain what the user is going to find in the toolbox in order to understand better its contents.		X			Guidelines have been prepared and included in the introduction of the first page of the toolbox, and a specific introduction is also included in each webpages steps.
Support of the tool	• It is suggested to improve its functionality and user friendliness.		X			Has been listed in the AMP toolbox improvements
	• Create a video tutorial showing how to use the tool with one example.		X			Has been listed in the AMP toolbox improvements
	•Breakdown a current policy into the different steps in order to illustrate the steps.					Has been listed in the AMP toolbox improvements (exemple of Marine Litter)
	• Create shorter texts (executive summary) would be needed if the tool is adressing to policy makers (highest level).		X			The toolbox has been elaborated through a policy cycle containing five steps: 1-set the scene; 2-assemble a basic policy; 3-make the policy robust; 4-implement the policy; and, 5-evaluate and adjust the policies.
	• It is suggested to link the toolbox to Google in order to supplement its potential of resource search and recommendation.		X			Technically speaking, it will complexify the system and bring few advantage, as the user can easily make such search on the separate page of the navigator.
Scope	• The tool could be useful for a large audience and in particular for the policymakers. The tool should be oriented not primarily to national level because most of environmental problems are trans-national. For example, the participants mentioned the issue of fishing quotas: although they are set in Black Sea, there are some countries that are not complying with them. Real addresses of the toolbox should be experts of an intermediate level, which may need to have a look into solutions adopted in other countries.			X		The AMP Toolbox is primarily dedicated to the elaboration of measures in the framework of the MSFD. As provided in the MSFD, these policies are at national level, taking both into account the MSFD subregions (e.g. four subregions for the Mediterranean Sea) and the regional dimention, if relevant to achieve the GES.

	Expectations identified by the Southern European Seas Stakeholder Platform and stakeholders consultation process					
Content	• It is suggested to incorporate further information in the knowledge base and stated that the current structure is not obvious to the user, hiding its potential.		X			Has been listed in the AMP toolbox improvements
	• It is needed to add more examples in order to better explain how the user can use the tool.		X			The example of the marine litter has been developed in order to illustrate concretely the steps and to provide to the user a detailed insight of the key activities and resources of the AMP Toolbox. Additionnaly, different real cases in order to implement adaptive policies have been developed under the resource page, example's section.
AMP Toolbox workshop for the Adriatic Sea: A role play with sub-regional stakeholders -June 2015						
	Need to improve the AMP Toolbox by including more guidelines and tools which will simplify the development of mutual understanding and the		X			Has been listed in the AMP toolbox improvements
	Include in the toolbox a portfolio of measures, examples from all seas in order to account for cultural and environmental differences.	X				Included in the Database Policy Measures – an inventory of policy measures that have been implemented by various countries
	The participants expressed the importance to use scenarios, data provided by models and monitoring systems for facing uncertainty linked with dynamic ecosystems such as marine areas and changes over time.	X				For scenarios, included in the Database Foresight exercises. For Models, included in the Resources / Regional Models section.
	The participants underlined the need for applying indicators' based approaches during policies design and implementation.	X				Mention to indicators and associated target in Step 3.
Results and comments from the Role Playing Game (RPG) for improving the AMP Toolbox	RPG underlined the need to involve, since the early stage of the adaptive policy making process (step1) a solid base of stakeholders in order to have a valuable support for the implementation of the right measures.	X		X		Involvement of Stakeholders is mentioned several times in the Step descriptions. Several tools are dedicated to Stakeholder participation.
	The issue of "who will use this?" was clearly discussed: an underlying hypothesis was that in some cases policy makers take decisions without consulting any high level technicians, who were actually those envisaged as potential users; on the other side, policy makers are not able to dedicate as much time as needed to a tool like the AMP Toolbox.				X	"Who should be engaged?" is a recurrent section in each Step presentation.
	It is suggested to add a Step 0 devoted to the identification of the public authority which has the mandate on the specific issue linked with the management of marine regions.				X	Very relevant remark. However this identification is very depending on the national context. Generalities are on this crutial issues could be trivial. Moreover Who should be engaged? is a recurrent section in each Step presentation.
	Resources sections of the toolbox, including, for instance, the database of tools and methods and the inventory of measures, should be linked to each step and not only to the right of the web-page.		X			Good suggestion, but may be too complex to implement for a marginal gain.

CONCLUSIONS

While the 1st PERSEUS Advisory Board meeting (Barcelona, January 2013) allowed to better understand regional stakeholders' needs and expectations regarding the PERSEUS APF and its AMP Toolbox, the AMP Toolbox Workshop – held almost two years later (Marrakech, November 2014) –, as well as the other stakeholders' consultation exercises reported in these deliverables demonstrated that the project and the WP6 managed to meet most of the needs and expectations previously expressed by PERSEUS Advisory Board members and regional or sub-regional stakeholders. The members of the Advisory Board showed a positive and supportive opinion on the AMP Toolbox. They congratulated the team on the achievements and the amount of information and knowledge collected. It should be noted that this favourable opinion is coherent with the one expressed by the experts mandated by the Commission in the framework of the second review of the PERSEUS project, who stated that "By contrast the AMP is a strong component of the outreach materials providing a relatively user friendly and potentially useful tool for decision makers". Moreover the members of the Advisory Board made constructive remarks regarding the efforts produced including the necessary improvements to bring to the structure of the toolbox. Indeed, the presentation of the information on-line should, according to regional stakeholders, be reviewed as it is too scientific oriented. However, it was requested to clarify the level of application of the AMP Toolbox (i.e. local, national, regional, etc.), and to take into account the need of supportive material or training sessions. That calls for improvements of the AMP Toolbox - which is ongoing by WP6 (Deliverable D6.14) and WP9 - but also to develop collaboration and synergies between work packages in order to implement efficiently the improvements identified. Finally, the Advisory Board meeting held in Marrakech was the opportunity to open the discussion on the follow-up of the project, notably the management and update of the Toolbox at the end of PERSEUS.

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