

PEGASO Project  
*People for Ecosystem based  
Governance in Assessing Sustainable  
development of Ocean and coast*

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# PEGASO ICZM Governance Platform: Guidelines and Lessons learned

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## Acronyms and abbreviations

### A

**AREA-ED:** *Association de Réflexion, d'Échanges et d'Actions pour l'Environnement et le Développement* (Association for Reflection and Action on the Environment and Development - Algeria)

### B

**BBN:** Bayesian Belief Network

**BSC:** Black Sea Commission (Commission on the Protection of the Black Sea against Pollution)

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

### C

**CAMP(s):** Coastal Area Management Programme(s)

**CASE(S):** Collaborative Application Site(s)

**CIM:** Cumulative Impact Mapping

**CPMR:** Conference of Peripheral Maritime Regions

**CVC:** Climate Variability and Change

### D

**DDNI:** Danube Delta National Institute for Research and Development (Romania)

**DIEC:** Data and Information Exchange Coordinator

**DoW:** Description of Work

**DPSIR:** Drivers, Pressures, State, Impacts, Responses

**DRR:** Disaster Risk Reduction

**DSS:** Decision Support System

### E

**EC:** European Commission

**EcAp:** Ecosystem Approach

**EEA:** European Environment Agency

**EIA:** Environmental Impact Assessment

**EU:** European Union

**EUC:** End User Committee

### G

**GEF:** Global Environment Facility

**GFCM:** General Fisheries Commission for the Mediterranean

**GIS:** Geographical Information System

**GWP:** Global Water Partnership

## H

**HCMR:** Hellenic Centre for Marine Research (Greece)

**HFA:** Hyogo Framework for Action

## I

**ICZM:** Integrated Coastal Zone Management

**IFREMER:** *Institut Français de Recherche pour l'Exploitation de la Mer* (French Research Institute for Exploration of the Sea - France)

**IMIS:** Integrated Marine Information System

**IMP:** Integrated Marine/Maritime Policy

**IOC/UNESCO:** Intergovernmental Oceanographic Commission / United Nations Educational Scientific and Cultural Organisation

**IRA:** Integrated Regional Assessment

**IRBM:** Integrated River Basin Management

**IUCN:** International Union for Conservation of Nature

## J

**JRC:** Commission of the European Communities – Directorate General Joint Research Centre

## L

**LEAC:** Land and Ecosystem Accounting

## M

**MAP:** Mediterranean Action Plan (UNEP/MAP)

**MEBM:** Marine Ecosystem-Based Management

**MEDCOAST:** Mediterranean Coastal Foundation (Turkey)

**MedICIP:** Mediterranean Integrated Climate Information Platform

**MedWet:** The Mediterranean Wetlands Initiative

**MHI:** Marine Hydrophysical Institute - Ukrainian National Academy of Sciences (Ukraine)

**MSFD:** Marine Strategy Framework Directive

**MSP:** Maritime/Marine Spatial Planning

**MSSD:** Mediterranean Strategy for Sustainable Development

## N

**NARSS:** National Authority for Remote Sensing and Space Sciences (Egypt)

**NAFO:** Northwest Atlantic Fishing Organisation

**NFP(s):** National Focal Point(s)

**NIOF:** National Institute of Oceanography and Fisheries (Egypt)



## O

**OGC:** Open Geospatial Consortium

## P

**PAP/RAC:** Priority Action Programme / Regional Activity Centre

**PMA:** Pollution Monitoring and Assessment

## R

**RAC:** Regional Activity Centre

**RSC:** Regional Sea Convention

**RTD:** Research and Technical Development

## S

**SAP:** Strategic Action Plan

**SCA:** Stakeholder and Conflict Analysis

**SDI:** Spatial Data Infrastructure

**SEA:** Strategic Environmental Assessment

**SEMCs:** Southern and Eastern Mediterranean Countries

## T

**TDV:** Tour du Valat Foundation (France)

## U

**UAB:** *Universitat Autònoma de Barcelona* (Autonomous University of Barcelona - Spain)

**UfM:** Union for the Mediterranean

**UM5a:** University Mohammed V – Rabat Agdal (Morocco)

**UNEP:** United Nations Environment Programme

**UNIGE:** University of Geneva (Switzerland)

**UNIVE:** Università Ca' Foscari di Venezia (Ca' Foscari University of Venice - Italy)

**UNOTT:** University of Nottingham (United Kingdom)

**UPO:** *Universidad Pablo de Olavide de Sevilla* (Pablo de Olavide University of Sevilla - Spain)

## V

**VIC(s):** Virtual Conference(s)

**VLIZ:** *Vlaams Instituut voor de Zee* (Flanders Marine Institute - Belgium)

## W

**WMS:** Web Map Server

**WP(s):** Work Package(s)



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## Executive Summary

The PEGASO project (2010-2014) had a twofold objective:

- (i) Support the implementation of the Protocol on Integrated Coastal Zone Management in the Mediterranean (ICZM Protocol) and explore similar policies in the Black Sea region;
- (ii) Build bridges between science (knowledge) and decision- and policy-making (governance) or, more precisely, make possible scientifically-founded decisions connected with local knowledge and the experiences of field practitioners and stakeholders.

The PEGASO ICZM Governance Platform was at the heart of the project and aimed to facilitate communication, dialogue and networking among its various members, which included project partners such as scientific institutions and international organisations (consortium); project end-users recruited from national and international institutions and organisations (End User Committee); and local stakeholders involved in ten “collaborative application sites” (CASES). This was achieved through a process of co-working and learning from each other, sharing knowledge and expertise, and testing innovative tools created under the project.

This ICZM Governance Platform provided a forum for developing knowledge and capacities for implementation through capacity building and participatory activities organised throughout the project with the following objectives:

- Learn directly from Mediterranean and Black Sea stakeholders about their needs and priorities with regard to sustainable development;
- Ensure a common understanding of ICZM tools and methods;
- Facilitate data and information sharing by building a shared knowledge base; and
- Create what is expected to become a Mediterranean and Black Sea network of ICZM policy-makers, practitioners and scientists.

Three main deliverables were produced under PEGASO WP2, which was dedicated to the ICZM Governance Platform, and this document is the second:

- Deliverable D2.1C “Common conceptual framework for the implementation of ICZM”, aimed at exploring the territorial, conceptual and policy contexts of ICZM.
- This report (Deliverable D2.4A) focuses on governance issues, proposes guidelines and rules for running an operational ICZM Governance Platform, and reports on lessons learned and experiences from the various project components: integrated toolbox implemented in the ten CASES with the support of the relevant capacity building programme; technical aspects such as the Spatial Data Infrastructure (SDI), Coastal Wiki, intranet and ‘polimedia’ videos; participatory events and dissemination activities.
- The third and final deliverable aims to prepare the future of PEGASO and make proposals and recommendations for sustaining the ICZM Governance Platform (PEGASO Business Plan - Deliverable D2.4B).

This Deliverable D2.4A is composed of several sections merging a variety of materials:

- A rationale explains what the ICZM Governance Platform is, why, how and by whom it was designed, its target audience (participants and users) and the principles on which it is based. It also presents the scope of the work in detail.
- The “networking component” is discussed from two angles: use of other experiences of ‘stakeholder platforms’ as sources of inspiration, and reporting about the links and interactions between PEGASO and other projects and initiatives.
- The technical support required to run the ICZM Governance Platform is presented by focusing on several tools: Coastal Wiki, intranet, ‘polimedia’ videos, and also dissemination and data sharing activities.
- Finally, this deliverable highlights lessons learned from various PEGASO activities that were developed under the umbrella of the experimental ICZM Governance Platform, such as the “ICZM stock-taking” exercise that fulfilled an official UNEP/MAP reporting obligation for the ICZM Protocol; lessons learned from participatory events with regard to collaboration processes and the mobilisation of collective expertise and; lessons learned from CASES in terms of relationships between scientists and local stakeholders.

## Introduction: The ICZM Governance Platform to bridge the gap between scientists and decision-makers

Given both rapid changes and uncertain outlook all around the world, particularly in coastal areas, which are facing serious human-made pressures, decision-making has to be driven by systemic analysis of current priority issues and changes to the main drivers, and also the best practices and lessons learned from experiences of sustainable management of coastal zones. Conventional science and academic research are not enough to achieve this overall objective. A 'new science' or 'science of sustainability' is required, which must be more operational and better linked to management and policy challenges, where information, decisions, and their assessment are built and shared between scientists, practitioners, decision-makers and civil society.

The [PEGASO project](#) (2010-2014) had a twofold objective:

- (i) Support the implementation of the [ICZM Protocol](#) in the Mediterranean and explore similar policies in the Black Sea region;
- (ii) Build bridges between science (knowledge) and decision- and policy-making (governance) or, more precisely, make possible scientifically-founded decisions connected with local knowledge and the experiences of field practitioners and stakeholders.

The PEGASO project sought to build an [ICZM Governance Platform](#) (Work Package 2 – [WP2](#)), in order to support the ICZM Protocol for the Mediterranean and help Black Sea countries to develop a similar instrument. This platform brought together scientists and decision-makers to explore and implement a co-working process all along the project, by sharing knowledge, expertise, guidance, and also any tools and lessons learned, in order to facilitate the decision-making process for ICZM in the Mediterranean and Black Sea basins.

***"Bridging the gap between science and decision-making is a crucial issue for ICZM as an adaptive policy. New and better knowledge alone is useless if it is not made available to decision-makers. (...) The challenge is to make this knowledge useful for decision-making. (...) There is also a gap that needs to be bridged between scientists, in order to build common interdisciplinary knowledge of coastal zones and processes. It is a difficult task, even for scientists working in the same fields, and it is even more difficult when the objective is to build a common vision between different scientific fields within and between social and natural sciences. (...)***

*Decisions relating to coastal zones are made by (central and local) governments, depending on socioeconomic conditions and the participation of civil society, and not by scientists. Decisions must not be based on 'tradition' or short term considerations. Complex issues must be addressed using observation and knowledge, which is based on science and local knowledge. In other words, 'system thinking' (systemic analysis) must be at the heart of the decision-making process assessing the potential environmental, economic and social consequences of any decisions.*

*Scientists can help decision-makers at all stages of an ICZM project (stock-taking, prospective studies, strategies and action plans, monitoring and evaluation), but their advice must be based on collective expertise from a variety of fields. The responsibility for the comprehensiveness and consistency of scientific advice must not fall on decision-makers, but on scientists and practitioners (facilitators). On the other hand, decision-makers have to build a common vision and make relevant decisions (Christophe Le Visage, End User Committee, Interview, May 2010).*

*“PEGASO should not only contribute to bridging the gap between scientists and decision-makers, but should also take into account the users of coastal zones and the various private companies that perform their activities on the coastal areas. Scientists should respond not only to decision-makers from administrations for environmental conservation, but also to the sectors’ needs” (Pablo Ávila Zaragoza, End User Committee, Interview, March 2013).*

As highlighted above, it is not the responsibility of scientists to apply ICZM, but instead to sustain its process by providing useful knowledge and, if possible, integrated expertise. Therefore, the ICZM Governance Platform was designed to be a forum for sharing and integrating knowledge and experiences through collective expertise and co-working to find a common understanding between decision-makers, practitioners and scientists. As stated in PEGASO Deliverable D2.1C, which discusses the Conceptual Framework for ICZM, the ICZM Governance Platform was not designed to be a governance mechanism, but instead a resource that would provide the necessary conditions in order to encourage changes in behaviour. This was achieved by mobilising PEGASO partners (scientific institutions and organisations/bodies responsible for the implementation of coastal policies), national and local authorities, stakeholders involved in the ten [CASES](#), and a selection of end-users operating at a national or international level in the Mediterranean and Black Sea basins.

**Who are the end-users?** For the PEGASO project, “end-users” were defined as individuals, bodies, and organisations that provide input and could use and validate the project’s results, products and outputs of the project through collaborative work. They include all those who affect and/or are affected by the policies, decisions, and actions regarding marine ecosystems and coastal areas, including public sector agencies, government services and local authorities, private sector organisations, representatives of civil society and NGOs, and also external agencies including donors. They belong to different communities that are affected by or have an interest in the management of coastal areas and their resources, such as experts, consultants and scientists, decision-makers and civil servants, managers, planners and practitioners, any stakeholders, and representatives of civil society and economic sectors.

## 1. Why an interactive/integrative platform?

Most ICZM initiatives have, more or less successfully, tried to actively involve stakeholders. However, ICZM initiatives have been primarily short-term in nature as their lifespan is determined by cyclical funding. Many of the benefits of partnerships and shared knowledge have been lost in this way. The PEGASO ICZM Governance Platform goes one step further towards achieving more comprehensive and sustainable collaboration with end-users, exploring several methods for collaborative work. This platform built on common knowledge and understanding during the project duration (2010-2014) and was designed to continue being operational beyond that period (see PEGASO Business Plan – Deliverable D2.4B).

The PEGASO ICZM Governance Platform has been designed to foster communication among Mediterranean and Black Sea stakeholders; discuss their needs and support discussion of priority issues within the ICZM Protocol and ICZM in general; ensure common understanding and use of project tools and methods; facilitate data and information sharing; better understand the scientific and pragmatic rationales of the tools offered; and build a shared knowledge base for different scales and places in the two regions.

*"I believe PEGASO is the "fuel" to the "engine" that keeps ICZM implementation running. EU policies and UNEP/MAP protocols take a long time to be implemented. PEGASO provides tools for decision-making, not only to accelerate the process, but to ensure that decisions are made on the basis of real data and up-to-date information. The decision-making process is more effective and sustainable under these conditions"* (Pablo Ávila Zaragozá, End User Committee, Interview, March 2013).

According to Mihail Costache (Romania, Ministry of the Environment and Climate Changes), Member of the PEGASO End User Committee, this project for coastal managers and ICZM practitioners has the following added value: it provides tools for decision-makers based on the data and information acquired through stakeholder participation; integrates the capacity for setting up a participatory approach for coastal zone management supported by high quality of information and data; and promotes tools and methods that could be extended across coastal areas.

Article 14 of the ICZM Protocol for the Mediterranean requires the development of new governance models built on partnerships and participatory processes. In accordance with this article, and in order to improve the integrated management of the Mediterranean and Black Sea coastal zones, participation and capacity building activities are the fundamental conditions for the development of an ICZM Governance Platform.

The overall PEGASO process was based on the principles of stakeholder and end-user participation, motivation and commitment in order to create a common understanding of the ICZM process. These principles are key for the success of any platform aimed to sharing interests and goals, exchanging good products (new knowledge) and best practices (lessons learned from past and current experiences), and supporting opportunities for learning and collaboration.

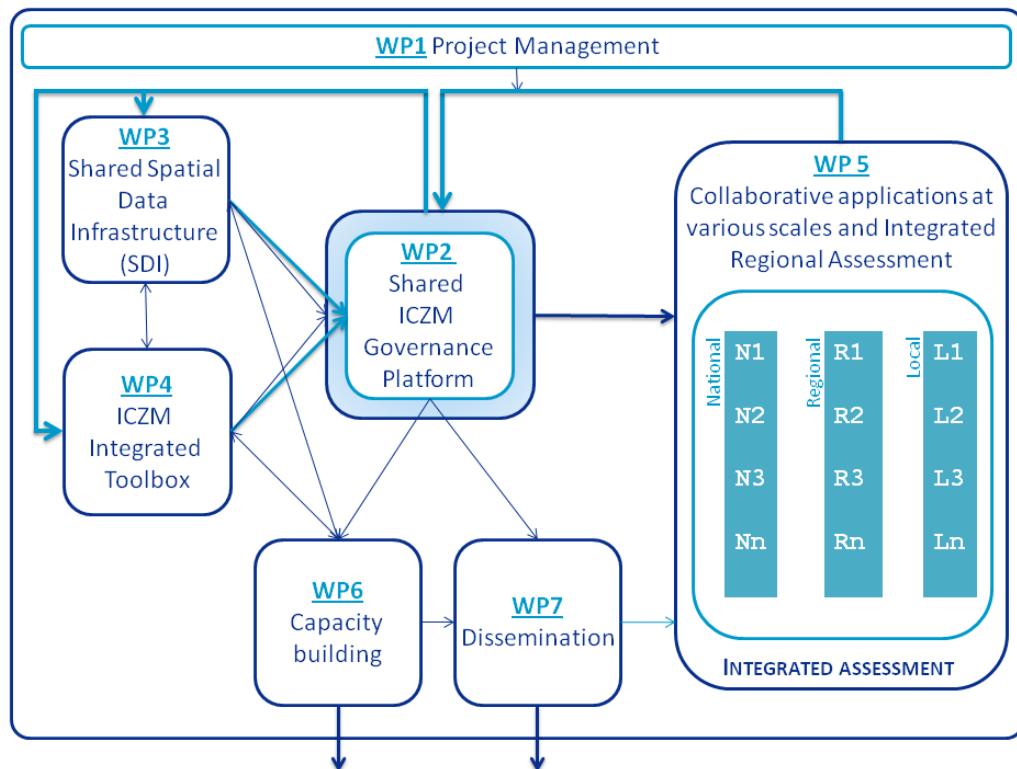
*“Coastal zones are complex systems where environmental, social and economic issues are inextricably entangled. Each case is both a unique issue and part of a more general problem, and decision-makers cannot rely on “off-the-shelf” solutions. (...)*

*Discussions about ICZM are still generally held in high level forums with only national representatives, but a significant part of ICZM projects is implemented at local level, and many sectoral stakeholders, who are potential end-users, are not represented in these forums and cannot express their needs and views. I expect PEGASO to become an operational and informal forum where all potential actors of ICZM at all levels can meet and communicate, share problems and responses, and formulate common questions for scientists” (Christophe Le Visage, End User Committee, Interview, May 2010).*

PEGASO can be considered an ambitious policy-oriented project, which is innovative and perhaps even pioneering due to the many aspects described below:

- PEGASO has supported the most recent Protocol adopted by the Contracting Parties to the Barcelona Convention - the ICZM Protocol for the Mediterranean, and helped Black Sea countries to explore possibility and opportunity of developing similar instruments;
- PEGASO has worked both in the Northern and Southern shores of the Mediterranean basin, and also in the Eastern part of the region, including the Black Sea basin. The project has taken into account differences between countries and regions, in terms of scientific background, ICZM experiences and instruments and the culture and governance framework in general;
- PEGASO has built an ICZM Governance Platform, which brings together scientists, decision-makers, end-users and any stakeholders, working at different levels, from regional to sub-regional, national, and local. Time scales were also considered in “envisioning” exercises to better understand the existing socio-ecological system and how it will evolve, which new threats are expected to emerge, and how and to what extent drivers can be managed in the land and marine parts of coastal zones;
- PEGASO has built a [Spatial Data Infrastructure](#) (SDI), which complies with [Open Geospatial Consortium \(OGC\) standards](#) and the [INSPIRE Directive](#). It has contributed to interactive information sharing, ensuring that spatial data was well organised and standardised;
- PEGASO has developed several tools within a ‘toolbox’ that was collaboratively built, tested and applied in ten pilot sites (CASES). A core set of ICZM indicators was defined to address the specific requirements of Article 27 of the ICZM Protocol, in order to “define coastal management indicators” and “establish and maintain up-to-date assessments of the use and management of coastal zones”;
- PEGASO has considered CASES not to be simple ‘case studies’, but instead ‘open laboratories’ where scientists and stakeholders have worked together to reach a common vision and understanding (communication and interaction, taking into account stakeholder needs and expectations regarding useful tools to run the ICZM process);
- PEGASO has developed cross-cutting views between CASES that are very different, unique, and complex with regard to several aspects such as policy framework, types of ecosystem (wetlands and deltas, islands, urban vs. natural areas, protected areas), geographical scales, and levels of socio-economic development.





**Figure 1: The ICZM Governance Platform at the heart of the PEGASO project**

The ICZM Governance Platform (Figure 1) has enabled scientist and end-user communities to share knowledge, data and information, case studies, local experiences, good practices, insights and policy recommendations, in order to build a common understanding of the issues and institutional perspectives affecting coastal zones in the two regional seas. *“The particular characteristic of ICZM is that it provides a framework in which all these related issues can be brought together and potentially resolved in a particular place – the coastal zone”* (Haines-Young and Potschin, 2013).

The ICZM Governance Platform has been a useful framework for the dissemination of PEGASO results among scientist and end-user communities. It has also been used to channel “external information”, e.g. information on relevant events, documents, training opportunities, scholarships, etc. to platform members via the PEGASO intranet. A number of ‘polimedia’ videos and training materials have been and are still available online thanks to the [PEGASO Coastal Wiki](#). The platform has supported the publishing of information and discussions and virtual conferences on various tools and methodologies, including [indicators](#), [scenarios](#), Geographic Information Systems (GIS), [Land and Environmental Accounting \(LEAC\)](#), cumulative impact mapping, socio-economic assessments, [participatory methods](#), and prospective exercises.

The ICZM Governance Platform aimed to contribute to a shared understanding for a more desirable and sustainable future in the two basins. The platform sought to help the implementation of future policies under the [Barcelona Convention](#) and [Bucharest Convention](#), and also contribute to real transformation within governance structures, which is a long-term requirement of these two Regional Sea Conventions (RSCs).

Cooperation between the two regional seas was an important part of the PEGASO project and ICZM Governance Platform itself. By improving collaboration with the RSCs, the scientific community could better take into account policy needs, especially at regional level. The cross-regional approach took into account a variety of scales, from basins (regional) to pilot studies (subnational/local).

Therefore, the ICZM Governance Platform can be considered both a tool and network to be fed into by partners and a limited number of external users, but with the intention and perspective of becoming a publicly available platform and an ICZM infrastructure for the Mediterranean and Black Sea, including stakeholders from countries, regions, municipalities, economic sectors, NGOs, etc., and supporting the initiatives carried out under the RSCs.

In addition to the ICZM Protocol for the Mediterranean, the PEGASO project has offered indirect and implicit support to other policy instruments and regional initiatives looking at links between ICZM and the EU Marine Strategy Framework Directive (MSFD), the 'Ecosystem Approach' (EcAp) developed under the auspices of UNEP/MAP, and the 'Strategic Action Plan for the Environmental Protection and Rehabilitation of the Black Sea', as presented in the following pages.



### **PEGASO and ICZM in the Mediterranean**

*"Through international agreements such as the Barcelona Convention and its ICZM Protocol, the Mediterranean has been at the forefront of thinking about approaches to integrated management in the coastal zone" (PEGASO Deliverable D2.1C). The ICZM Protocol came into force on 24 March 2011 and is the 7<sup>th</sup> protocol of the Barcelona Convention, which was adopted in 1976 by the 21 Mediterranean riparian countries and the European Commission, as Contracting Parties. This protocol is a crucial milestone in the history of the [Mediterranean Action Plan](#) (UNEP/MAP). This unique legal instrument is intended to help countries better manage their coastal zones, and deal with the emerging coastal environmental challenges, such as climate change.*

*"Now that the ICZM Protocol is in force, Mediterranean countries are entering into a new era of inter-sectoral cooperation for development, based on a tailor-made approach for shaping sustainable solutions that take into account the local and regional needs. With the ICZM Protocol, we finally have a legally binding instrument in our hands to CHANGE existing development planning practices that neglect the benefits and services provided by ecosystems in Mediterranean coastal regions. This is a historic challenge and we need to start promoting good practices" (Mitja Bricelj, End User Committee, Interview, December 2010).*

*"The PEGASO project seeks to support the implementation of this innovative legal document by offering equally innovative scientific, technical and governance tools and options" (Breton and Skaricic, 2013).*

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### **PEGASO and ICZM in Black Sea countries**

The ICZM Protocol for the Mediterranean is also seen as a source of inspiration for strengthening ICZM in Black Sea riparian countries, under the auspices of the Commission on the Protection of the Black Sea Against Pollution ([Black Sea Commission](#) / BSC). *"(...) the key difference between the Black Sea and the Mediterranean is the lack of a legally enforceable agreement on ICZM. The Advisory Group (established in 1996) on the Development of Common Methodologies for Integrated Coastal Zone Management in the Black Sea does just that; it develops approaches, drafts guidelines, seeks to strengthen cooperation and facilitates co-operation. Its activities are designed to support the work of the Black Sea Commission by advising on such things as the development of regional ICZM policies and strategies, devising and promulgating codes of conduct in the coastal zone, disseminating good practices at the regional level. It is also charged with advising on the development of 'appropriate indicators for comprehensive description of the status of the Black Sea coast and for the efficiency of the ICZM process and activities'. Part of the work being undertaken in PEGASO is to reflect on the experience in the Mediterranean and help stakeholders in the Black Sea consider what future measures are needed to build on what has already been achieved. (...) The Black Sea Convention also established a Permanent Secretariat to coordinate activities leading to the implementation of the Convention" (PEGASO Deliverable D2.1C).*

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### **The MSFD aims to achieve Good Environmental Status (GES) for EU marine waters**

The [Marine Strategy Framework Directive](#) (MSFD) is the environmental pillar of the EU [Integrated Maritime Policy](#) (IMP), which is designed to achieve the full economic potential of oceans and seas in harmony with the marine environment. It was adopted on 17 June 2008 by the European Parliament and Commission (with total unanimity of the 27 Member States), and has since been transposed into the national legislation of each EU Member State.

The overarching aim of the MSFD is to ensure the sustainable exploitation of natural resources, in order to maintain or achieve biodiversity, and keep the European seas clean, healthy and productive. The MSFD aims to effectively promote the EU marine environment. Its goal is to achieve [Good Environmental Status](#) (GES) for EU marine waters by 2020 on the basis of 11 qualitative descriptors, and protect the resource base upon which marine-related economic and social activities depend.



The MSFD aims to achieve or maintain the GES of the marine environment by 2020 at the latest via the five following complementary steps: EU Member States have to (i) produce an initial assessment of the current environmental status (2012), define (ii) GES and (iii) environmental objectives with associated indicators (2012), on which (iv) monitoring programmes (2014) and (v) programmes of measures (2016) will be based.

The MSFD establishes European marine regions on the basis of geographical and environmental criteria. Each Member State, in cooperation with other Member States and non-EU countries within a marine region, is required to develop strategies for its marine waters. The marine strategies to be developed by each Member State must contain a detailed assessment of the environmental status, a definition of GES at regional level and the establishment of clear environmental targets and monitoring programmes.

*“The goal of the Marine Strategy Framework Directive is in line with the objectives of the 2000 Water Framework Directive which requires surface freshwater and ground water bodies - such as lakes, streams, rivers, estuaries, and coastal waters - to be ecologically sound by 2015 and that the first review of the River Basin Management Plans should take place in 2020”* (European Commission, [A Marine Strategy Directive to save Europe's seas and oceans](#)).

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#### **The EcAp initiative implemented under the auspices of UNEP/MAP and with the support of the EU**

In 2008, the Contracting Parties to the Barcelona Convention (all riparian countries and the European Commission) recognised the need to better protect ecosystems by gradually applying the ecosystem approach to the management of human activities that may affect the Mediterranean marine and coastal environment. They decided that UNEP/MAP should gradually implement the process known as Ecosystem Approach (EcAp) in view of an ecological vision for the Mediterranean as a *“healthy Mediterranean with marine and coastal ecosystems that are productive and biologically diverse for the benefit of present and future generations”*.

This vision is divided into three strategic goals:

- *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.*
- *Reduce pollution in the marine and coastal environment so as to minimise impacts on and risks to human and/or ecosystem health and/or uses of the sea and the coasts.*
- *Prevent, reduce and manage the vulnerability of the sea and the coasts to risks induced by human activities and natural events.*

A roadmap for the implementation of EcAp has been created. It spans over 10 years, from 2010 to 2019, and consists of several subsequent steps, which in addition to the vision and strategic goals, provide for (i) the assessment of marine and coastal properties and pressures, including a socio-economic analysis, (ii) the development of ecological and operational objectives and their respective indicators, (iii) the definition of GES and targets, (iv) the revision of monitoring programmes to take into account the agreed Environment Assessment indicators as appropriate, and, finally, (v) the implementation of the necessary management measures and programmes to achieve GES. The Ecosystem Approach has been recognised as the overarching principle of the UNEP/MAP's 5-year Programme of Work, which is hence applicable to all the MAP's Protocols, including the one on ICZM. At global level, the EcAp initiative will convey the Mediterranean contribution to the “Regular Process for Global Reporting and Assessment of the State of Marine Environment, including Socio-Economic Aspects” established by the Resolution of the UN General Assembly and Law of the Sea, in application of the Ecosystem Approach principles.

### **Strategic Action Plan for the Environmental Protection and Rehabilitation of the Black Sea**

The Black Sea [Strategic Action Plan](#) (SAP) adopted in 2009 is a development from the previous version (1996) and the Transboundary Diagnostic Analysis (2007), and was produced with the contribution of 60 Black Sea regional experts. It is implemented by the Commission on the Protection of the Black Sea Against Pollution (Black Sea Commission) via its Permanent Secretariat, the intergovernmental body established in implementation of the Convention on the Protection of the Black Sea Against Pollution (Bucharest Convention) and its Protocols.

The Black Sea SAP calls for three key and complementary environmental management approaches:

- Integrated coastal zone management (ICZM);
- Ecosystem approach; and
- Integrated river basin management (IRBM).

It relies on a description of the ecosystem approach and operational guidance and recommendations on its application, endorsed by the Fifth Meeting of the Conference of the Parties to the Convention on Biological Diversity (decision V/6), since all Black Sea countries are parties to the Convention. The ecosystem approach is understood as a strategy for the integrated management of land, water and living resources that promotes conservation and fair sustainable use. The ecosystem approach recognises that humans are an integral part of many ecosystems.

In line with the defined management approaches, the SAP defines four Ecosystem Quality Objectives that reflect how stakeholders envisage the long-term state of the Black Sea, provided that the identified priority problems are resolved. These objectives are:

1. Preserve commercial marine living resources;
2. Conserve Black Sea biodiversity and habitats;
3. Reduce eutrophication; and
4. Ensure good water quality for human health, recreational use and aquatic biota.

Each objective is assigned a number of management targets that address the immediate, underlying and root causes of the issues of concern.

In accordance with the EU MSFD, SAP has a role equivalent to that of the EcAp initiative for the Mediterranean Sea. Both are guided by the ecosystem-based management approach and supported by the European Commission.

## 2. What does ‘ICZM Governance Platform’ mean?

This section focuses on several aspects and principles guiding the development of the PEGASO ICZM Governance Platform:

- A Multi-stakeholder, Collaborative, Participatory Platform;
- “Decomartmentalisation” for an Integrative/Holistic Approach;
- Governance and Participation embedded within ICZM;
- The ICZM Governance Platform for the adaptive management of coastal zones;
- The ICZM Governance Platform: **scope of work**.

### 2.1. A Multi-stakeholder, Collaborative, Participatory Platform

A platform can be defined as a “*decision-making body (voluntary or statutory) comprising different stakeholders who perceive the same resource management problem, realise their interdependence for solving it, and come together to agree on action strategies for solving the problem*” (Steins and Edwards, 1998). It is like a roundtable where people are gathered and have multi-stakeholder dialogues (Warner, 2005). The notion of platform is similar to other terms such as forum, dialogue, partnership or network (Le Tellier and Lafitte, 2013).

As a participatory process in itself, ICZM requires collaboration among various stakeholders in order to build a common and sustainable vision of a given coastal area and its future. As highlighted by many PAP/RAC publications, networks play an important role in ICZM because they are key to the development of shared visions and promotion of better stakeholder integration. The ICZM Protocol for the Mediterranean makes specific reference to networks in Article 16 on “Monitoring and Observation Mechanisms and Networks”. This article requires Parties “*to use and strengthen existing appropriate mechanisms for monitoring and observation, or create new ones if necessary on both resources and activities as well as legislation, institutions and planning; to participate in a Mediterranean coastal zone network in order to promote exchange of scientific experience, data and good practices; and to collect appropriate data in national inventories*”. With regard to ICZM, more efficient communication and dissemination of practices and experiences are needed in order to gather and make existing data available, make better use of it to assess trends and threats, and facilitate exchange of experiences across the Mediterranean and Black Sea.

In the process of the PEGASO collaborative work and knowledge sharing, participatory and co-working processes were considered basic perquisites in order to reach a common understanding. Participatory approaches allow the ‘cross-fertilisation of ideas’ and develop trust between partners. Face-to-face communication and interactions of all ICZM Governance Platform participants (see Section 3) were extremely important as a main working tool (stakeholder in-depth interviews, participatory meetings, co-working and focal group sessions, collaborative workshops and forums), but were not enough; they had to be balanced out with virtual collaborative tools such as “online media” including virtual working and conferencing areas.

An ‘online collaborative platform’ can therefore be defined as a ‘virtual workspace’ or ‘virtual knowledge centre’, which is linked to a specific website and intranet forum bringing together all platform’s participants (partners, users). An ‘online collaborative platform’ has to be supported by a technical infrastructure that includes tools such as IT tools, software packages, online videos, knowledge-databases, a server for resource sharing, electronic messaging, discussion forums, a user profile directory, timetables, indexes listing completed and remaining tasks, any available or forthcoming reports, and finally a collective archive system. In addition to the two major products developed under this project – the ICZM Process included in the Coastal Wiki and the SDI, all these or similar tools were made available and functional on the PEGASO website and intranet (see Section 5).

## 2.2. “Decomartmentalisation” for an Integrative/Holistic Approach

The principle of “*decomartmentalisation*” overcomes sectoral boundaries to achieve a systematic and cross-disciplinary overview of cumulative issues. Following this principle, a governance platform brings together different stakeholders from the public sector, private companies, scientific communities, civil society, supranational organisations and sponsors *around the same table* and *within a structured process*.

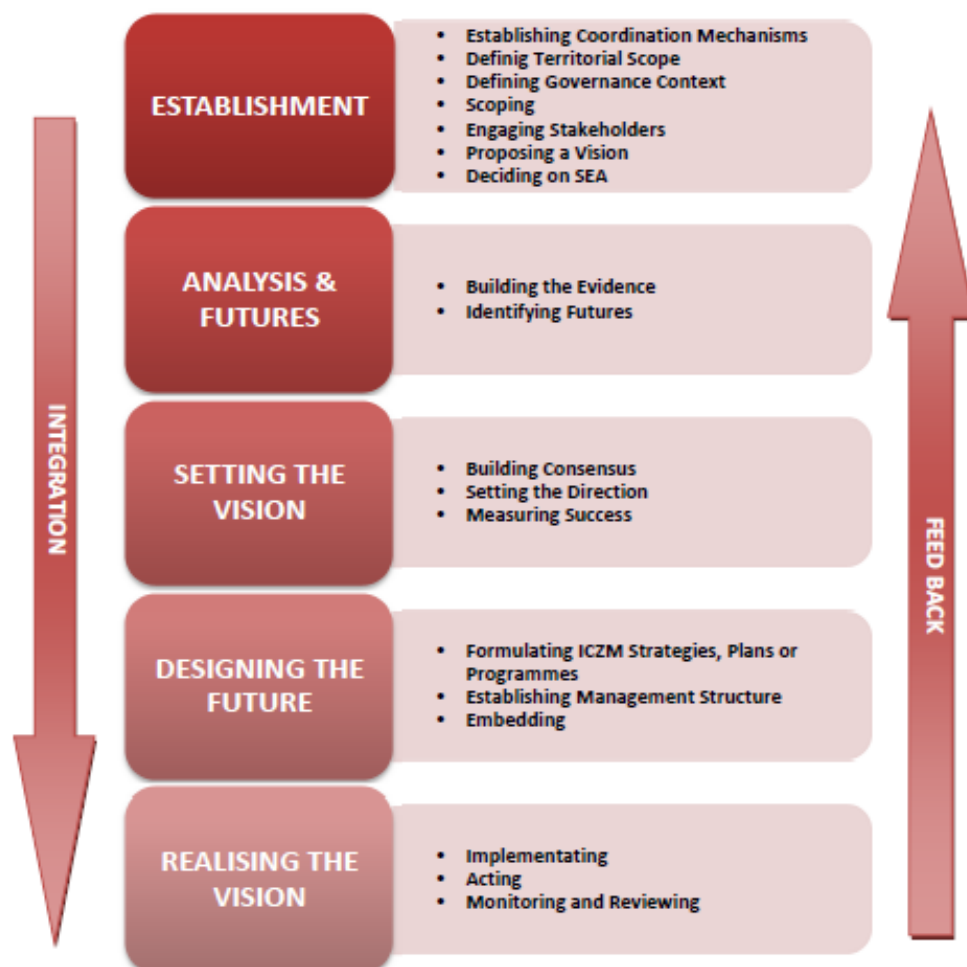


Figure 2: The ICZM Process Diagram



The primary target participants in the [ICZM process](#) (Figure 2) are the stakeholders involved in the preparation of ICZM plans, strategies and/or programmes for coastal areas. As shown in Figure 2, the ICZM process embedded within the ICZM Governance Platform offers a framework for these interactions and gives step-by-step guidance with lot of tools, guidance, examples, and more.

Feedback provided by members of the End User Committee about the PEGASO Regional Meeting held in Rabat (Morocco) in March 2013 illustrates the usefulness of such an approach. The “What if...?” exercise conducted in Rabat was highly appreciated because it brought together local stakeholders and scientists from the PEGASO CASES, researchers and experts from the PEGASO consortium and members of the End User Committee. It was recognised that such a ‘collective expertise’ has much more impact on decision-makers and on the decision-making process than the simple juxtaposition of opinions and expert judgements from their specific fields.

#### **What about collective expertise?**

*“Collaboration and co-working between researchers and stakeholders leads to collective and cross-cutting expertise. Collective expertise prevents some experts and scientists from being too forward in others’ fields. Participatory exercises (e.g. What if...?) based on collective expertise prevent decision-makers – who have often made their decisions before receiving scientific advice – from relying on disagreements between scientists in order to denigrate scientifically-founded advice. (...)”*

*Freelance consultants, engineering firms or other bodies/organisations could/should have a specific interface (go-between) role in order to strengthen dialogue between scientists and decision-makers. This role needs to develop specific skills in order to adapt scientific information to make it suitable for decision-makers. ‘Scientific language’ has to be simplified in order to submit clear messages to decision-makers. Most members of the End User Committee could play this role of interface between scientists and decision-makers who are interested in ICZM” (Christophe Le Visage, End User Committee, Interview, March 2013).*

PEGASO provided valuable lessons about the role of science and the need for a multidisciplinary and multicultural science, which can better work in collaboration with decision-makers and practitioners, in order to bridge the gap between science and policy. This integrated vision is necessary to build ICZM goals into an ecosystem-based framework, linking land and marine environments. It is not an easy process as it requires a change in the way scientist and decision-maker communities are organised. Indicators for assessing ‘good science’ should change, requiring not only peer review, but also the evaluation of its usefulness by decision-makers and end-users. The roles of PEGASO end-users and the co-working process have helped conceive this way of building common knowledge that includes useful scientific knowledge, but also traditional knowledge and field expertise, etc.

The European Commission (EC) defines ICZM as “*a dynamic, multidisciplinary and iterative process to promote sustainable management of coastal zones. It covers the full cycle of information collection, planning (in its broadest sense), decision making, management and monitoring of implementation. ICZM uses the informed participation and cooperation of all stakeholders to assess the societal goals in a given coastal area, and to take actions towards meeting these objectives. ICZM seeks, over the long-term, to balance environmental, economic, social, cultural and recreational objectives, all within the limits set by natural dynamics. ‘Integrated’ in ICZM refers to the integration of objectives and also to the integration of the many instruments needed to meet*



*these objectives. It means integration of all relevant policy areas, sectors, and levels of administration. It means integration of the terrestrial and marine components of the target territory, in both time and space".* Source: [CEC Communication 2000/547 ICZM](#).

Integration in a coastal management context is a major challenge and its complexity is reflected in the term's many horizontal and vertical implications. To the well-known integration aspects within ICZM:

- Integration between sectors;
- Integration between disciplines;
- Integration between levels of government;
- Integration between land and water parts of coastal zones;
- Integration between nations.

Two additional aspects should be added as a result of the lessons learned from PEGASO:

- Integration between spatial and temporal scales in a problem-oriented framework, to better conceive the multiple consequences of the impacts and their cumulative, synergistic or dissociated effects on ecosystems and territories, in order to better identify their drivers and how they can be managed at different scales. Some drivers cannot be managed, in which case adaptive practices are needed to mitigate their effects;
- Integration of different sources of knowledge to represent the diversity of backgrounds, individual psychological functions and social and cultural points of view, and to understand why these are so different and why a consensus cannot be reached, when this is the case. Visions of reality are complex and are due to different experiences and contexts for cognition and learning.

#### **Reconciling land and sea areas within coastal zones...**

*According to Christophe Le Visage (France), Member of the End User Committee, "(...) many – if not all – issues are not local or short-term and require cross-cutting approaches. Water quality and pollution from land-based sources, overfishing, fish stock management, and even urban sprawl can have consequences far beyond local perimeters and national boundaries.*

*The ICZM process and projects too often focus on the land part of the coast, where many problems and threats come together or appear. But demand for maritime space and resources is exploding and more attention should be given to cross-sectoral and cross-border maritime issues, such as marine protected areas, maritime transport, fishing or energy..."* (Interview, May 2010).

*"A suggestion could be summarised within the following question: How can the PEGASO approach be extended beyond coastal areas to include large marine waters and ecosystems?"* (Ibid, Interview, April 2013). This question indirectly raises the issue of connections between ICZM, Marine Spatial Planning (MSP), and Integrated Maritime Policies (IMP) in general – as proposed by EC - COM (2013) 133.

*According to Pablo Ávila Zaragoza (Spain), Member of the End User Committee, "an important part of PEGASO is its capacity to integrate all the aspects and stakeholders involved in this complex system of the Coastal Zone: i.e. its capacity to set up a participatory approach supported by high-quality information. (...) PEGASO could be a tool to renew the old concept of Mediterranean unity, based on the common interest of preserving the Mediterranean as an ecosystem"* (Interview, March 2013).

According to Mihail Costache (Romania), Member of the End User Committee, “PEGASO should provide balanced input for a decision-making process, concerning ecosystem protection, both for coastal activities with an impact and ecosystem protection for coastal areas and the marine environment. This decision-making process should take into account area development (economic activities, users of coastal zones) and the protection of the coastal zone” (Interview, June 2013).

### 2.3. Governance and Participation embedded within ICZM

Governance encompasses formal and informal arrangements, institutions and organisations that structure and influence how resources are used, how problems and opportunities are assessed and analysed, what behaviour is deemed acceptable or forbidden, and what rules and sanctions are applied to affect the pattern of use. Governance refers to a different way of making decisions, with a proliferation of places of decision and associated players. Modernise public action to promote cooperation and mediation, manage the plurality of sometimes conflicting interests, and promote the inclusive participation: governance is based on partnership and interaction between State, local authorities and all stakeholders, including private sector and civil society. Governance is not government, and is much more than government. Governance is a multi-level, multi-sectoral, multi-temporal, and multi-stakeholder exercise. ‘Good governance’ is a fairly sensitive issue; the concept of ‘good governance’ comes from the World Bank in the 1980-90s, following the failure of ‘structural adjustment programmes’ in developing countries. In World Bank jargon, ‘good governance’ is linked to the requirements (prescription) of institutional and administrative reforms as a condition for the allocation of funds<sup>1</sup>. The concept of ‘good governance’ has been further developed by the UN (UNDP), EU, and OECD, to take on a different (alternative) meaning that avoids prescriptive or normative aspects (such as ideological biases).

#### There is no single and simple recipe for governance...

“Good governance” is an extremely elusive objective. It means different things to different organizations, not to mention to different actors within these organizations (...). In general, work by the World Bank and other multilateral development banks on good governance addresses economic institutions and public sector management, including transparency and accountability, regulatory reform, and public sector skills and leadership. Other organizations, like the United Nations, European Commission and OECD, are more likely to highlight democratic governance and human rights, aspects of political governance avoided by the Bank” – UN University: <http://unu.edu/publications/articles/what-does-good-governance-mean.html>.

“Terms come and go in changing political contexts (...) with things that merely sound new (we have a good example with MSP and the long debate within the Commission that should hopefully finally produce a directive reconciling MSP with ICZM...). (...) In the end, though, many of the key ideas underlying these concepts remain normative principles regardless of how they are labelled, simply because they make sense...” (Yves Henocque, VIC-forum about the PEGASO Conceptual Framework, 30 August 2013).

<sup>1</sup> See for instance World Bank 1992, Governance and Development, Washington DC, and “Governance. The World Bank Perspective” (1994).

Governance means the process of decision-making and the process by which decisions are implemented. *“Governance is about relations and power. One definition is that it is about ‘the interactions among institutions, processes and traditions that determine how power is exercised, how decisions are taken on issues of public and often private concern, and how citizens or other stakeholders have their say’ (Institute of Governance, 2002). Or, more succinctly: ‘Governance determines who has power, who makes decisions, how other players make their voice heard and how account is rendered’ – Institute of Governance: <http://iog.ca/blog/defining-governance/>*

Ernoul and Wardell-Johnson (2013) argue that *“to be effective, ICZM governance based on participatory processes and striving for collaborative outcomes must accommodate both formal institutional frameworks (vertical links) to link power across social scales and informal networks (through horizontal links) to engage local level collaboration to develop appropriate innovation and adaptive behaviour”*.

Governance is therefore a fundamental part of what ICZM is trying to achieve, namely the ‘co-construction’ of an integrated and adaptive management approach to coastal zone issues. There is, however, no simple recipe for good governance: Article 7 (Coordination) of the Protocol does not explicitly call for any particular type of institutional arrangement, but rather seeks to create opportunities to establish appropriate governance mechanisms suited to various legal and institutional arrangements and cultural and socio-economic conditions that are nevertheless consistent with the aims and objectives of sustainable development (IDDRI, 2012).

*“The goal of promoting ‘good’ or ‘inclusive governance’ in the coastal zone is a primary aim of PEGASO. To do this, it was proposed that the principle outcome should be the creation of a ‘Governance Platform’, designed to support efforts across the two regions to put effective ICZM strategies, plans and policies in place. The (ICZM Governance) Platform was conceived, not as a governance mechanism, but as resource that would provide the necessary enabling conditions be created and the resulting changes in behaviours be encouraged. It was suggested that the Platform must be seen as a flexible network of ICZM content providers allowing decision makers at regional, national and local to access a large range of information. The activities of the Platform were not supposed to be confined to gathering data, information and web links; it was supposed above all to enable the coordination and support of ICZM research, planning and management activities. This transboundary “portal of portals” must also provide a forum-like interface to encourage ICZM experiences to be shared. In short, it could be seen as an ‘engine of change’ in terms of promoting good or inclusive governance. The importance of having access to case studies from which the lessons of ecosystem based management can be distilled has been demonstrated by partnerships in other parts of the world” (Haines-Young and Potschin, 2013).*

## 2.4. The ICZM Governance Platform for the adaptive management of coastal zones

The PEGASO ICZM Governance Platform can be defined as a ‘place’ for fostering links between the worlds of science and decision-making, providing the necessary input (knowledge and tools), dealing with policy formulation and management actions, and exploring how they can better work together to produce shared practical knowledge and make well assessed decisions.

The ICZM Governance Platform offers to these worlds to communicate, discuss, and disagree, if necessary, in order to prevent scientists from becoming isolated in their own closed world of ever-expanding data, and decision-makers from being forced to look only at short-term solutions because they are not able to use this data properly.

The PEGASO project sought to achieve *“the proactive and adaptive management of coastal zones, which encourages all interested parties to work together on specific coastal issues, and provides the appropriate institutional, legal and societal setting that enables horizontal and vertical coordination as a guarantee that the most appropriate solutions will be adopted for the managed areas”* (Breton and Skaricic, 2013). Members of the ICZM Governance Platform, *“with their different interests and their need for sharing ideas, exchanging good practices and discussing how to translate ICZM Protocol articles into action, find their best expression through collaboration, in a cross-boundary setting, with common objectives and similar methods”* (Ibid).

Basic principles guiding the development of the ICZM Governance Platform are provided in the ICZM Protocol itself. Two main principles behind the entire endeavour are explicitly stated in several of its articles: i.e. Article 6, point (d), which stipulates that *“appropriate governance allowing adequate and timely participation in a transparent decision-making process by local populations and stakeholders in civil society concerned with coastal zones shall be ensured”*, or Article 15, point 3, by which the Parties undertake to provide for interdisciplinary scientific research with the *“further knowledge of integrated coastal zone management, to contribute to public information and facilitate public and private decision-making”*.

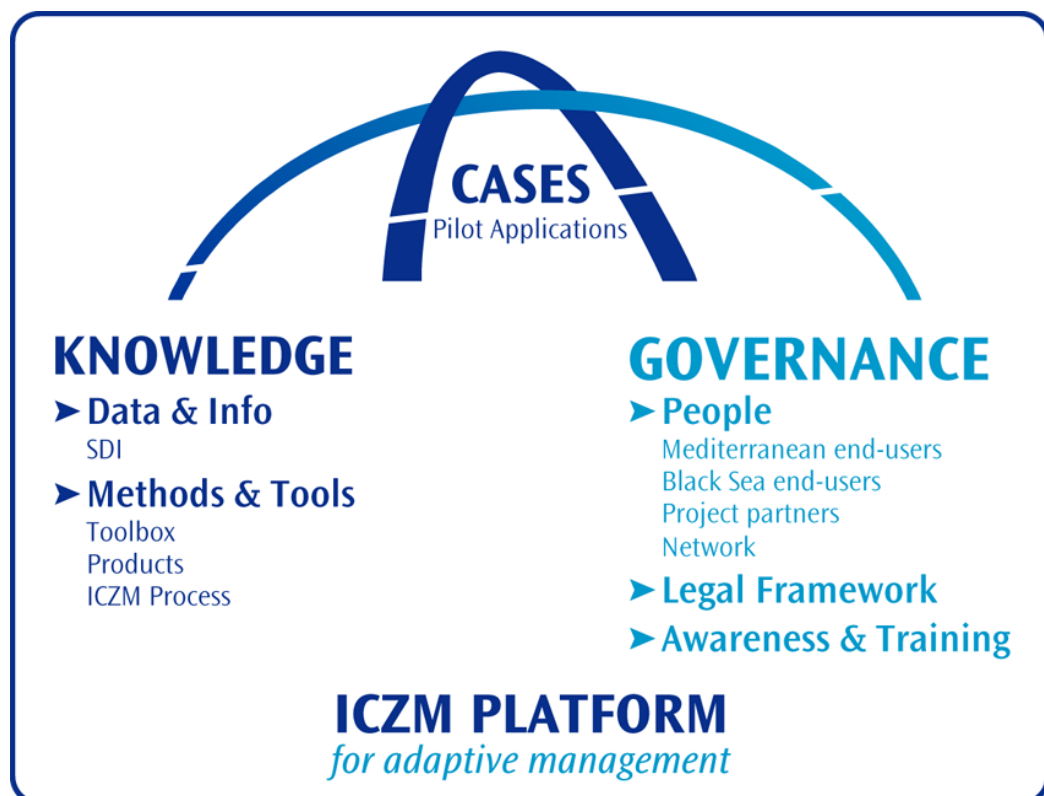


Figure 3: Bridging two pillars of ICZM, knowledge and governance, for efficient decision-making

The PEGASO ICZM Governance Platform was established as a forum where participants can share data, information, methods and tools, and also the lessons learned, in order to enrich the initial data input and translate it into the “knowledge” box (Figure 3). This kind of joint effort based on collaborative work is called “adaptive management”, and is:

- **ecosystem-based**, because it seeks to take into account the integrity of the ecosystem in which it operates and look at it not as a predetermined territorial unit, but as a functional unit whose boundaries are highly problem- and interaction-dependent;
- **science-based**, because management decisions are based on data from diverse scientific disciplines, which are translated into information that can be easily understood and used by all participants in the decision-making process, where the use of tools made available by science plays an equally important role;
- **participatory**, because it gives the opportunity to all relevant players to provide their input throughout the management process;
- **strategic**, because it looks for long-term solutions while, at the same time, providing for periodic assessments and necessary adjustments to changing conditions;
- **embedded within the institutional framework responsible for implementation**, which is sufficiently flexible to include and coordinate all relevant bodies;
- **supported by adequate legal instruments** and an enabling political context.

## 2.5. The ICZM Governance Platform: scope of work

The ICZM Governance Platform has been built on partnerships between scientific and end-user communities all around the Mediterranean and Black Sea basins in order to identify common threats and responses to the sustainable development and environmental protection of coastal zones bordering these two regional seas.

The project was designed to support the implementation of the ICZM Protocol for the Mediterranean and the European policy framework, including the Recommendation on ICZM, the Marine Strategy Framework Directive (MSFD) and other legal and policy instruments. *“Screening these new policies and concepts to better understand what kind of relationship they have with ICZM has been one of the main objectives and tasks of PEGASO”* (Breton and Skaricic, 2013). This was also the main topic of the first in a sequence of deliverables produced under WP2 of the project: the Conceptual Framework for ICZM (Deliverable D2.1C), which aimed to explore the territorial, conceptual and policy contexts of ICZM. This document (Deliverable D2.4A), which is the second deliverable in this sequence, focuses on governance issues and develops topics such as:

- (i) proposing guidelines and rules for running an ICZM Governance Platform;
- (ii) reporting on lessons learned and experiences. The third and final report aims to prepare the future of PEGASO and make proposals and recommendations for sustaining the ICZM Governance Platform (see PEGASO Business Plan – Deliverable D2.4B).

All project WPs have contributed to these deliverables by implementing various tasks:

- The assessment and use of tools, and the production of a mutual assessment on the main threats and priority responses regarding the environmental status of Mediterranean and Black Sea coastal zones (Integrated Regional Assessment (IRA) carried out under [WP5](#);
- Stock-take of the legal, institutional and organisational framework for ICZM in the Mediterranean and Black Sea regions to assess how countries are prepared to implement regional ICZM policies (WP2);
- Development of tools for assessing the sustainability of coastal and marine ecosystems; development of a core set of indicators to assess the progress of the ICZM process ([WP4](#)); development of land use and urban trend maps for the whole Mediterranean and Black Sea basins, at two periods of time (2000 and 2011), and a cumulative impact map focusing on the Western Mediterranean;
- Creation of a shared SDI to support access to data and information in an attractive web portal, building local [geonodes](#) in several institutions to share interoperable data ([WP3](#));
- Development of capacity building ([WP6](#)) to encourage common understanding for ICZM implementation.

### 3. ICZM Governance Platform participants

*The ICZM Governance Platform primarily consisted of people, comprising approximately 150 persons working in the organisations involved in the project, a panel of renowned Mediterranean stakeholders (End User Committee) representing international organisations, national and regional authorities and several key sectors of the economy (e.g. tourism, aquaculture), members of the Black Sea Commission, and people involved in the ten CASES...*

The ICZM Governance Platform comprised four main groups of people, consisting of scientists and stakeholders that deal with environmental and development issues in the Mediterranean and Black Sea across a large range of spatial scales (Figure 4).

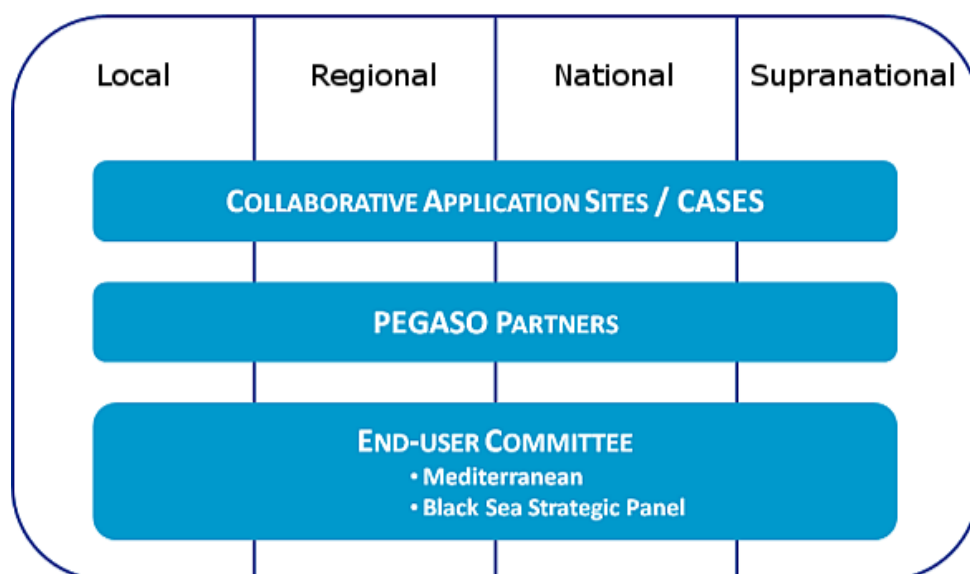


Figure 4: Participants involved in the PEGASO ICZM Governance Platform

The PEGASO ICZM Governance Platform was built to foster and facilitate links between all of the project's work packages, and was led by the management team (WP1 - [Universitat Autònoma de Barcelona / UAB](#)). All WPs contributed to the platform's work by collecting data and building the Spatial Data Infrastructure (WP3), and also providing tools (WP4) for test and validation in the CASES (WP5), thanks to capacity building activities (WP6). The results and outputs of the project were co-produced, discussed, tested and agreed within the platform, and disseminated under [WP7](#).

PEGASO was structured around [25 project partners](#) (the PEGASO consortium) and a panel of relevant end-users, with a large range of players representing a variety of sectors. It can be considered a heterogeneous network, resulting from the combination of different networks, and corresponds to a "network of networks".

The consortium was composed of international and regional institutions, local and regional authorities, research institutes, universities, economic players, and NGOs. This network has been extended much further, through the connections of each partner to include a multitude of formal and informal connections.



*In addition to the “official” members of the platform, all “ICZM addicts”, “coast-lovers”, and people that want to get involved in making our coastal zones resilient, healthy, productive and attractive, are invited to join the PEGASO team and contribute through their knowledge and experience.*

The work of the ICZM Platform was also supported by the network of local ‘geonodes’ built under WP3. Together with the SDI, they provide for the management and exchange of harmonised data. The PEGASO Web Portal was designed and managed by the [Flanders Marine Institute \(VLIZ / Vlaams Instituut voor de Zee\)](#) – as the PEGASO “Data and Information Exchange Coordinator (DIEC)” –, and its intranet (designed and managed by Universidad Pablo de Olavide / UPO) is the virtual forum for the ICZM Governance Platform and the ‘place’ where a number of virtual meetings took place (e.g. virtual conferences - VIC).

According to the PEGASO ‘Description of Work’ document, the Data and Information exchange Coordinator (DIEC) is responsible for ensuring and improving the monitoring of information and content exchange across the whole project (in line with a data exchange protection protocol signed by all partners at the beginning of the project). The DIEC is hosted by WP3 (Shared Information Infrastructure - SII) and also serves to facilitate data exchange with external partners and networks. The Flanders Marine Institute (VLIZ) is responsible for this facilitator role, under the overall coordination of WP3. The DIEC reports to the WP3 lead and project management ([WP1](#)) with regard to its activities and commitments.

The ICZM Governance Platform participants are presented in the subsections below, as follows:

- (i) PEGASO consortium;
- (ii) CASES partners, and;
- (iii) End User Committee with its two sections (Mediterranean and Black Sea).

### 3.1. The PEGASO consortium

The PEGASO project was based on a continuous long-term working relationship between a number of national and international institutions dedicated to the regional assessment of the Mediterranean and Black Sea. A number of recognised research groups that have been working to implement ICZM at local, national and regional scales for years were involved in the PEGASO consortium (see Appendix 1).

The PEGASO project had the diversity and range needed to address its trans-disciplinary research topics. The consortium included participants with an experience in complementary fields in order to cover all of the project’s topics: SDI, database, indicators, scenarios, economic assessment, CASES, participatory process, etc. The participants formed a strong and well balanced consortium, with various connections. This consortium offered balanced geographical coverage, with participants from Northern Mediterranean countries (France, Croatia, Greece, Italy, Spain), Southern and Eastern Mediterranean Countries (SEMCs: Algeria, Egypt, Morocco, Lebanon, Turkey), EU and non-EU Black Sea countries (Georgia, Romania, Turkey, Ukraine), and also participants from other EU countries (Belgium, United Kingdom), and one participant from Switzerland. The selection of partners from non-European countries was a key factor to ensure the success of the project.



Two Regional Activity Centres (RACs) of the Mediterranean Action Plan (UNEP/MAP) – [PAP/RAC](#) and [Plan Bleu](#), participated in the project:

- On the one hand, there is PAP/RAC, based in Croatia, which supports and monitors the implementation of the ICZM Protocol for the Mediterranean. This RAC has also been in charge of the implementation of the UNEP/MAP's Coastal Area Management Programmes (CAMPs) for more than twenty years.
- Plan Bleu RAC on the other hand, is located in the South of France (Sophia-Antipolis and Marseilles) and generates information and knowledge to alert decision-makers and other stakeholders to environmental risks and sustainable development issues in the Mediterranean, and shape future scenarios to guide decision-making processes.

Plan Bleu worked in close partnership with PAP/RAC, participating in several CAMPs by developing, testing and implementing the “*Imagine*” method of systemic analysis and sustainability prospective. Both PAP and Plan Bleu RACs support the implementation of the [Mediterranean Strategy for Sustainable Development \(MSSD\)](#), adopted in 2005 by the Contracting Parties to the Barcelona Convention.

### 3.2. The PEGASO Collaborative Application Sites (CASES)

The ten PEGASO CASES (Figure 5 and Table 1) had a different function compared to other projects where pilot study areas are used as simple case studies. As ‘open laboratories’, the main function of the CASES was to use, test and validate a number of multi-scale tools, explore the relevance of the project results for the two basins, and take advantage of field work to involve local stakeholders within the ICZM Governance Platform.



Figure 5: The PEGASO Collaborative Application Sites (CASES)

CASES	Scale	Main coastal issues	Relevant Policy
<b>Northern Mediterranean CASES (from international to local)</b>			
North Adriatic Sea (Italy - Slovenia - Croatia)	Marine region - Sub-region (EU MSFD)	Impacts of climate change, bathing water quality, MPA, need for a common vision for the implementation of the ICZM Protocol in the Adriatic.	EU MSFD, Water Framework Directive, ICZM Protocol
Aegean Sea islands (Greece)	Marine region - Sub-region (EU MSFD)	Tourism pressure, fisheries, maritime mobility and accessibility, sea level rise	EU MSFD ICZM Protocol
Bouches du Rhône (France)	Local and Regional	Urbanisation, port management, tourism, biodiversity loss	EU MSFD ICZM Protocol
<b>Southern and Eastern Mediterranean CASES (from West to East)</b>			
Al Hoceima coast (Morocco)	Regional and National	Urban sprawl, sea level rise and erosion, fisheries, bathing water quality, loss of biodiversity	ICZM Protocol
Nile delta (Egypt)	Local and Regional	Urban sprawl and land use, water quality, erosion and sea level rise.	ICZM Protocol Water Directives
North Lebanon Coastal zone (Lebanon)	Regional & National	Erosion, urban sprawl, marine pollution, impacts on fishery	ICZM Protocol
Dalyan-Köycegiz Special Protected Area (Turkey)	Protected area. Local / Regional	Water quality, impacts of climate change, management of recreational activities and boat traffic, nature conservation, fisheries, urban sprawl.	Shore Law, Fisheries Law, SPA Regulations, ICZM Protocol
<b>Black Sea CASES (from EU to non-EU countries)</b>			
Danube Delta (Romania)	Local	Habitat degradation and coastal erosion, loss of biodiversity, impacts of global changes.	Habitat and Water Framework Directives, MSFD
Sevastopol Bay (Ukraine)	Local	Eutrophication and water pollution, biological diversity loss, impacts of climate change.	Habitat and Water Framework Directives
Guria Coastal Region (Georgia)	Local / Regional	Bathing water quality and beach litter, weak quality of Environmental Impact Assessment (EIA), erosion, habitat loss.	Bucharest Convention, BS-SAP 2009, Regional oil spill contingency plan

**Table 1: The PEGASO Collaborative Application Sites (CASES)**

The ten CASES were selected because:

- They represented four different scales within the Mediterranean and Black Sea basins: local, regional, national, and supranational;
- They corresponded to criteria for the ICZM Protocol for the Mediterranean and/or for a marine eco-region according to the EU MSFD (North Adriatic, Aegean islands);
- They were managed within a transboundary framework (North Adriatic);
- They represented vulnerable specific coastal areas (wetlands and deltas, islands / Danube, Nile, and Rhône deltas, Aegean islands);

- They included coastal protected areas (Dalyan special protected area);
- They helped understanding of the synergies between land and sea (Bouches du Rhône, Sebastopol bay, North Lebanon coastal zones, Nile Delta, Al Hoceima Bay).

The CASES work was multi-scale in its approach: for each CASE, both global and local drivers of change were considered and both past and future threats were examined. As part of the participatory processes embedded within the PEGASO project, scientists and stakeholders mutually agreed on priorities for future responses to ICZM, marine and maritime issues, in order to consider wider policy implications.

### 3.3. The PEGASO End User Committee (EUC)

The End User Committee was a consultative panel that brought together a number of stakeholders interested in the outcomes of the project (see full list in Appendix 2). This committee was involved in implementing the project, both in the ICZM Governance Platform and the CASES, in order to take advantage of PEGASO expertise and guidance, and methods and the lessons learned, for facilitating ICZM decision-making.

Since one of the main challenges of the PEGASO project was to integrate two essential components (development of tools and methods and their implementation in the CASES), the EUC had to provide advice on the practical implementation of tools for a pragmatic and realistic approach.

The EUC was also one of the bodies that directly and frequently interacted with other PEGASO partners involved in the ICZM Governance Platform, during general meetings, participatory workshops in the CASES and regional co-working sessions.

#### **The End User Committee within the ICZM Governance Platform**

For the ICZM Governance Platform, the EUC had the following functions:

- Help identify the priority issues, main drivers and risks to be considered both at sea and on the coast for the present and future;
- Respond to consultative papers, provide advice about user needs, help understand the requirements for the tools to be produced under the project;
- Give opinion on the PEGASO toolbox, particularly for its implementation in the CASES;
- Facilitate stock-taking and the collection of available data;
- Attend meetings and interactive sessions - raise issues for discussion during project meetings, on the intranet forum, and during virtual conferences;
- Assess the usefulness of the tools developed under the project - help adapt these tools to the specific needs of end-users;
- Review relevant draft deliverables - provide feedback on the perception of the usefulness of the project's results and outcomes.

### **The End User Committee and the Collaborative Application Sites**

At a certain point in the project, a suggestion was made to designate “CASES sponsors” among members of the EUC. The aim was to bring ‘sponsorship’ from one end-user per CASE and priority was given to end-users who came from countries where there was a PEGASO CASE. For the “sponsored CASE”, the “sponsor” had to be informed of the tools implemented and work carried out, in order to give feedback and comments about approaches and results. The “CASE sponsor” was not responsible for judging the management of the CASE; his/her main function was to give an external view of what happened in the CASE. The “CASE sponsor” made his/her expertise available to the CASE, particularly to support the CASE responsible when particular tool developments were considered necessary.

On many occasions and particularly during PEGASO regional events – First General Meeting (Tulcea, Romania, July 2011), Mediterranean Regional Envisioning Workshop (Arles, France, November 2013), Black Sea Workshop (Istanbul, Turkey, December 2013) –, face-to-face dialogue was established between CASES representatives and members of the EUC. Furthermore, all CASES established a close dialogue with local stakeholders (co-working, consultation, participatory events, etc.) and most of those stakeholders can be considered to be CASES partners<sup>2</sup>.

Finally, the proposal of “twining between CASES” was found to be relevant to take into account similar coastal issues or comparable areas such as wetlands and deltas, islands, protected areas, port areas, urban agglomerations. It was relevant to make several associations between CASES with similar coastal issues, such as the pressures of tourism activities, port operations or fisheries. For example, in order to share experiences regarding the management of coastal zones and taking into account similar coastal issues, the Al Hoceima CASE (Morocco) was invited to a stakeholder meeting for the Bouches du Rhône CASE (Marseilles, France, 11 February 2013).

### **Role of the ‘Participatory Coordinator’**

To support participation within the ICZM Governance Platform, a Plan Bleu officer was assigned the role of ‘Participatory Coordinator’, working in close partnership with the PEGASO management team, PAP/RAC as WP2 and ICZM Governance Platform leader, and the EUC. The Participatory Coordinator was a special figure responsible for coordinating, monitoring and guaranteeing the participatory process within the ICZM Governance Platform and had a role of facilitator.

The Participatory Coordinator supported project coordination by facilitating links between members of the consortium and end-users and was responsible for effective co-working by interactive participation with EUC members. On one hand, the Participatory Coordinator had an essential role within the ICZM Governance Platform in supporting active interactions between this platform’s various bodies. On the other hand, the Participatory Coordinator was involved in the CASES and was in charge of follow-up for participatory events, where and when it was needed.

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<sup>2</sup> For further information regarding the strategies implemented by CASES to bridge the gap between science and decision-makers please see the Internal Deliverable ID5.1.7 “Application in CASES phase 3”.

### 3.4. Role of the National Focal Points within and for the future of the ICZM Governance Platform

Because the project was intended to deal with the implementation of a legally binding document – the ICZM Protocol for the Mediterranean, it became evident at an early stage that its progress and future development would depend highly on the timely information and active involvement of the PAP/RAC National Focal Points (NFPs). Similarly, the existence of the Advisory Group on the Development of Common Methodologies for ICZM<sup>3</sup> (AG ICZM) within the BSC called for active contribution in order to help sustain the ICZM Governance Platform. The involvement of the NFPs was deemed to be the best way to strengthen ownership of the project, since the ICZM subsidiary bodies of the Barcelona and Bucharest Conventions are probably the most important end-users of the final products and tools that PEGASO has developed.

The “stock-taking exercise” (stock-take of the legal, institutional, organisational and financial frameworks for ICZM in each country) has already resulted in significant project contribution in providing both initial guidance for the preparation of the official UNEP/MAP reporting format for the ICZM Protocol for the Mediterranean and a baseline for measuring the progress made with regard to protocol implementation. Official national ICZM representatives in both basins made a significant contribution by compiling or adding to and validating the national status reports on ICZM implementation in their countries and occasionally providing comments and guidance for the synthesis of stock-taking findings. The stock-taking process is illustrated below while the summary of stock-taking results and key findings for both basins is contained in Appendices 3 and 4.

#### **Stock-taking activities – Legal, institutional, and organisational frameworks for ICZM**

One of the main tasks of the WP2 was to carry out a benchmark assessment of the current state of ICZM in Mediterranean and Black Sea countries. This state was assessed in relation to the ICZM Protocol for the Mediterranean. In September 2010, the Permanent Secretariat of the Commission on the Protection of the Black Sea against Pollution (BSC-PS) agreed to follow this approach for the Black Sea basin. ICZM “stock-taking” was therefore completed for both Mediterranean and Black Sea countries, which included an analysis of the current legislative, institutional, policy and financial framework for ICZM.

The process was based on a comprehensive and exhaustive ICZM Implementation Audit Questionnaire, which reflected the structure of the ICZM Protocol for the Mediterranean. The questionnaire contained 53 questions grouped into 16 core themes: Coastal zone boundaries; ICZM and/or coastal legislation; Coordination; Protection and sustainable use of the coastal zone; Economic activities; Coastal ecosystems, landscapes & cultural heritage; Participation; Awareness raising, training, education & research; Monitoring & review; National coastal strategies, plans and programmes, transboundary cooperation; Environmental and strategic assessments; Land policy; Economic, financial & fiscal instruments; Natural hazards & coastal erosion; Exchange of information and activities of common interest; Transboundary cooperation.

<sup>3</sup> The Advisory Group on the Development of Common Methodologies for Integrated Coastal Zone Management (AG ICZM) is an integral part of the BSC institutional structure and constitutes its subsidiary body. The AG ICZM gives advice to the BSC on proper management of the coastal zone and the development and implementation of regionally coordinated ICZM strategies, methodologies and instruments in the context of sustainable development. The AG ICZM comprises the NFPs, who are selected by the respective national member of the BSC, and is responsible for facilitating links between the BSC, the relevant national authorities and regional and national scientific expertise. The NFPs are responsible for delivering accurate and timely national information on ICZM as it deems necessary for the BSC.

The draft questionnaire was prepared by PAP/RAC and widely consulted upon, including a workshop with Mediterranean NFPs in Slovenia in September 2010. The NFPs subsequently validated the Mediterranean questionnaire, whilst the AG ICZM also validated the questionnaire for the Black Sea on behalf of the BSC in September 2010.

In October 2010, 27 questionnaires were distributed to NFPs: 6 to the Black Sea countries and 21 to the Mediterranean countries; Turkey received the questionnaire in both formats. The questionnaires were completed either by the NFPs or their nominated experts, or by national partner institutions participating in the PEGASO project before being validated by the NFPs. The BSC-PS coordinated answers from Black Sea countries. A completion and return date of 31 March 2011 was requested, and the majority of questionnaires were completed by this date. However, a number of minor errors and anomalies were detected and the questionnaires were redistributed in October 2011 and returned during 2012 - all answers were given or validated by the NFPs.

In the Mediterranean, the 'stock-take' was intended to provide the benchmark against which progress in ICZM could be measured in the long term. Decision IG.20/3 from the 17<sup>th</sup> Ordinary Meeting of the Contracting Parties to the Barcelona Convention (Paris, 8-10 February 2012) updated the data provided through the stock-taking exercise, in order to have more complete information by the end of 2013 – when a new decision on the official reporting format for the ICZM Protocol within the regular Barcelona Convention reporting system would be submitted for approval to the 18<sup>th</sup> Ordinary Meeting of the Contracting Parties.

AG ICZM members advised that the regional synthesis report be used as the basis for the ICZM part of the Report on the Implementation of the Black Sea Strategic Action Plan (SAP), which is due in 2014-2015. It also seems logical to consider the next update to the regional ICZM implementation audits by performing periodic stock-taking prior to ministerial meetings as part of the Black Sea SAP reporting (convened every 5 years).

In terms of the application of the ICZM Governance Platform resources, it is worth mentioning that all the stock-taking questionnaires submitted following validation by the NFPs or other officials in charge, were uploaded and made available for consultation on the PEGASO intranet. The regional synthesis reports were also validated for publication in electronic form and disclosure via the Internet.

An important technical contribution made during the preparation of the regional synthesis reports was the 'mapping' of stock-taking results, presenting them in the format of simple GIS maps. Several maps were automatically generated to illustrate some of the issues covered by the 16 themes and 53 questions within the stock-taking ICZM audit questionnaire and were provided in the synthesis reports. The stock-taking results could also be shared via the PEGASO SDI. Such a tool, if developed properly, would be invaluable not only for Mediterranean and Black Sea ICZM end-users, but also for users from other regional seas and marine areas.



## 4. Networking component: taking advantage of other experiences of ‘stakeholder platforms’

Networks are composed of a multitude of nodes (individuals, organisations, sites/territories) and links (relationships between nodes). When authorities, institutions or organisations adhere to a network, they instruct individuals to represent them. In order to thrive, networks have to be dynamic and therefore require active people to run them. The PEGASO project has been supported by sound inter-connections between partners, as a result of previous cooperation experiences and shared work on other projects.

### 4.1. Networking component: links between PEGASO and other projects

Some of the organisations involved in the PEGASO consortium are already cooperating on other projects and running their own networks. Due to its open and flexible approach, the PEGASO ICZM Governance Platform has been since the beginning considered as a hub for initiatives such as: the [RAMSAR](#) Convention of Wetlands, the Mediterranean Wetlands Initiative ([MEDWET](#)) or the [Adriatic-Ionian Commission](#). It has also attracted and established synergies with many other coastal and marine initiatives, in the first place those in which one or more PEGASO partners were actively involved: UNEP/GEF MedPartnership and ClimVar projects, IPA Adriatic SHAPE project, MAREMED project, the Bologna Charter 2012, or FP7 MEDINA and PERSEUS projects (see Appendix 5).

#### Joint meeting between collaborative projects

Back-to-back with the Mediterranean Coast Day celebration (25 September 2012), PAP/RAC organised, in Split, Croatia, on 26 September 2012, a joint meeting with several partners involved in collaborative projects focusing on coastal issues in the Mediterranean, including PEGASO, PERSEUS, SHAPE, and MAREMED. During this joint meeting the participants agreed on the following options:

- Identify points of contact and synergy on common issues, and develop links between projects that mobilise the same stakeholders;
- Organise joint meetings (or shared participatory workshops) and invite other projects to participate in regional and general meetings;
- Share the results and outputs of the projects, and also publications or databases via interoperable information systems;
- Expand access to ‘human/social’ and ‘technical/virtual’ platforms to support the circulation of information.

### 4.2. Other experiences of ‘stakeholder platforms’ as a source of inspiration

In running the ICZM Governance Platform, the PEGASO consortium was trying to benefit as much as possible from the experience of other “stakeholder platforms” at international, regional, national, and local scales. These initiatives – already implemented or under development – are briefly presented in Appendix 6.

## 5. Technical support to run the ICZM Governance Platform

To allow co-working to take place among the platform participants, face-to-face communication and participatory work were extremely important (see Sections 6 and 7), but access to online technical support was also essential. To support communication between PEGASO people working on different sites and to allow interactions across various spatial scales, a powerful technical infrastructure was provided (Table 2).

Technical tools	Purpose
<b>Intranet</b>	It was designed for sharing and communication and as a restricted common work space, with an active forum and document repository for participants (upload/download). It served as a virtual forum for the ICZM Governance Platform and the “place” where a number of virtual meetings took place (e.g. PEGASO virtual conferences – VICs). This could be extended as the basis of a wide resource in the region.
<b>Intranet Management System</b>	It was designed to organise and disseminate resources and results (reports, maps, data, application, etc.). It uses open source code.
<b>Web portal</b>	The Web portal was designed to give the project complete external visibility. One of its main features is the Coastal Wiki ( <a href="http://www.coastalwiki.org">www.coastalwiki.org</a> ), which allows for further dissemination. The portal makes selected project outputs available to a wider audience and this could become an important resource for the wider community as the ICZM Governance Platform develops.
<b>SDI</b>	The PEGASO SDI complies with OGC standards and the INSPIRE Directive, and supports interactive information sharing, ensuring that spatial data is organised and standardised (Figure 6). It includes a network of “geonodes” created by project partners, which can be extended to the entire Mediterranean and Black Sea regions.
<b>Decision support toolbox for ICZM</b>	Co-produced tools to support well-documented decisions on ICZM: plans, strategies, identification of main threats, trends, and responses. This collaborative work is the blood that feeds into the PEGASO ICZM Governance Platform, in order to engage all platform participants to build a common pool of data, experiences and tools that support shared assessment and decisions in the Mediterranean and Black Sea.

**Table 2: Technical components of the PEGASO ICZM Governance Platform**



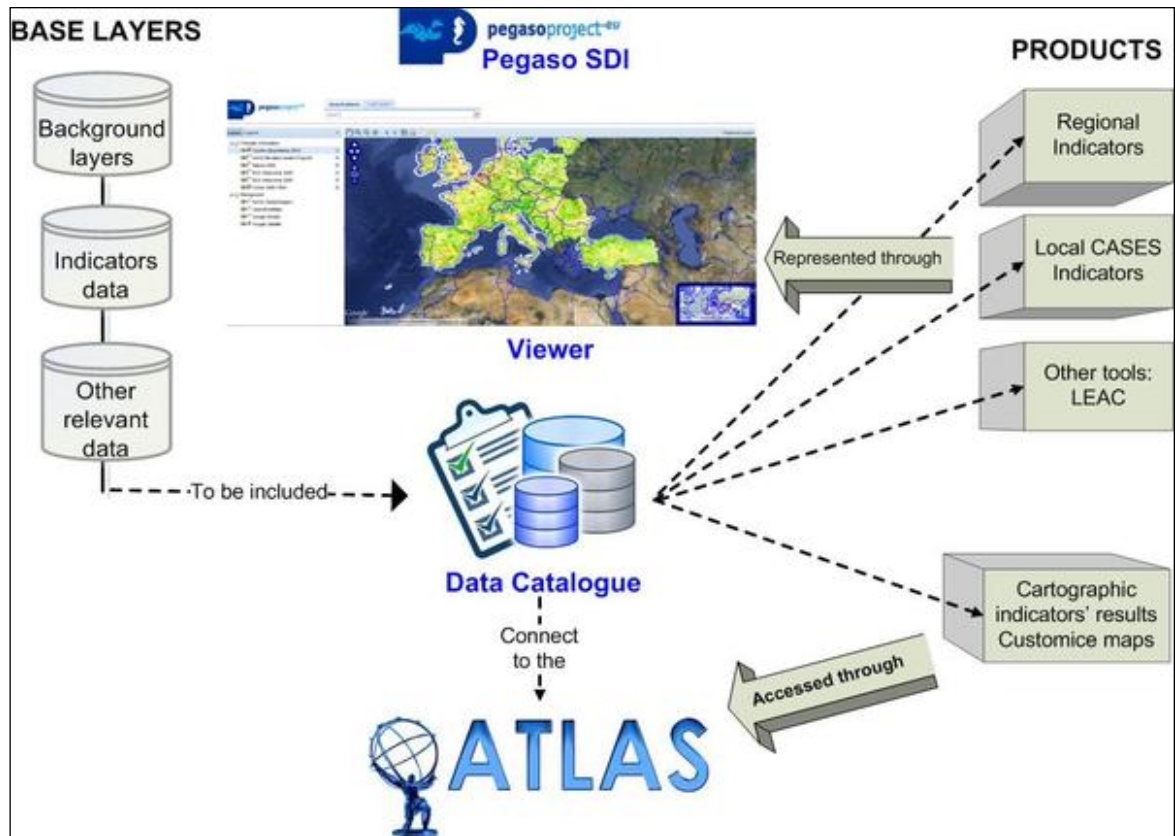


Figure 6: Implementation of the PEGASO Spatial Data Infrastructure (SDI)

“Every provider of geoinformation has to provide [geonodes] using an Internet geoservice. This can be achieved by using a Web Map Server [WMS], with Standard connections based on OGC [Open Geospatial Consortium] specifications. These services will allow users to access, visualise or download geoinformation via a WMS Client (under conditions defined by the provider). A provider can have one or more Web Map Servers, each containing several Services. The different services have to be described by the corresponding Services Metadata, which will be published in a Web Catalogue. Every geoinformation provider has to be considered a “node” within the network of Web Map Servers which form a particular SDI [Spatial Data Infrastructure]”.

<http://www.coastalwiki.org/coastalwiki/Geonode>;

[http://www.pegasoproject.eu/index.php?option=com\\_content&view=article&id=11&Itemid=25](http://www.pegasoproject.eu/index.php?option=com_content&view=article&id=11&Itemid=25)).

## 5.1. The PEGASO Wiki: Why, What and for Whom?

### The issue: taking better advantage of existing knowledge

There is abundant information on coastal and marine processes and issues, but most of this information is not easy to find or use, or its scientific value may be unclear. Existing documentation and publication practices do not take full advantage of present knowledge and experience. The current situation can be described as follows:

1. Scientific knowledge is mainly communicated among fellow experts. Scientific publications focus on specific disciplinary aspects and are almost inaccessible to non-expert coastal and marine professionals.
2. Integrated assessments of coastal and marine issues often refer to specific field situations and are published as grey literature or brochures, which are hard to find and get hold of.
3. Results published on project websites often become inaccessible after the project has ended.

Powerful search systems have been developed to retrieve information from the Internet, but due to the huge proliferation of websites, generally not more than a fraction of the relevant information is found. The use of this information is further hampered by the lack of consistency between pieces of information and the lack of comprehensiveness and context. Some pieces of information may be outdated and others may be unreliable. Furthermore, in spite of the fact that much of the research is funded with taxpayers' money, it is often not freely accessible at the appropriate time. For these reasons, much coastal and marine knowledge that exists in research institutes and practitioner organisations is not fully utilised and similar studies are carried out more than once. New knowledge dissemination practices are needed to capitalise on scientific output and take better advantage of existing knowledge, especially for practical use in decision-making.

The PEGASO Wiki for the Mediterranean and Black Sea is an online portal embedded within the [Coastal and Marine Wiki](#) launched within the EU ENCORA project (Appendix 7). It serves as a collaboration platform to publish information and discuss the various tools, methodologies, [indicators](#) or scenarios used in ICZM at various scales and in different pilot sites across the Mediterranean and Black Sea. The PEGASO Wiki aims to collect and publish all scientific project outputs and make them easily accessible to end-users, in a structured and integrated way. The PEGASO Wiki is fully designed according to the general Wiki principles. However, an important difference with the Wiki described above is that it is not possible to edit anonymously; contributors need to create an account and sign in using their institutional affiliation.

**Target user groups** of the PEGASO Wiki are:

- Decision-makers: e.g. a coastal mayor, an employee at a higher management level in regional or national administration, EC staff, or managers of influential NGOs;
- Practitioners: e.g. an MPA manager, an expert working for the administration, a planner or consultant at any administrative level, employees of companies and consulting agencies that are active in the coastal and marine areas;
- Scientists from any area of marine-related science, who require information from a field other than his/her own field of interest or as a start-up to enter a new research area;
- Students at academic institutions and trainees, who want to familiarise themselves with the concepts of coastal and marine science and with practices for coastal and marine management;
- Public stakeholders with a particular interest in coastal and marine information, e.g. water sports practitioners, amateur fishermen, seaside visitors, etc.
- The wider public. For this group in particular, a pro-active approach to the dissemination of research outputs is necessary and planned for the project.

## **PEGASO and updating the Coastal and Marine Wiki**

The PEGASO Wiki focuses on the following four information components:

- Legal frameworks: with information on the ICZM Protocol and Barcelona Convention for the Mediterranean, and the Bucharest Convention for the Black Sea.
- The 10 PEGASO CASES aim to test and validate the assessment tools developed during the project at different spatial scales, and contribute to the Integrated Regional Assessment at basin-wide scale for the Mediterranean (7 CASES) and Black Sea (3 CASES).
- Tools in support of ICZM: Land and Ecosystem Accounting (LEAC); Cumulative Impact Mapping (CIM); Indicators for ICZM; Scenarios making methods; Participatory approaches; Socio-Economic valuation;
- Spatial Data Infrastructure (SDI): with an introduction to the importance of data sharing, common concepts and definitions, guidelines for the harmonisation of data and guidelines to build a 'geonode'.

The PEGASO Wiki also contains a section that exemplifies and describes each of the different steps in the ICZM process, in the section entitled, "[\*The ICZM Process - a Roadmap towards Coastal Sustainability – Introduction\*](#)". The five stages of the ICZM process (Establishment, Analysis and Futures, Setting the Vision, Designing the Future, and Realising the Vision: Figure 2) are further structured into key tasks for each stage, which are documented in the Coastal Wiki.

The PEGASO Wiki is also a central part of the project's communication strategy. The Data and Information Coordinator (VLIZ) is dedicated to ensuring that PEGASO deliverables are translated into content that can be consulted both internally within the PEGASO consortium and by the external interested public, by translating it into Wiki articles. These Wiki articles are intended to facilitate communication by making the outputs, findings and conclusions of deliverables (tools, reports, methods) available. The release of Wiki articles is immediately announced in the PEGASO news feed, which can be accessed from the Home page.

## **Statistics**

The Coastal and Marine Wiki currently contains 1,973 articles (8 July 2013), which are part of one of its 9 sub-portals. In total, the pages have been edited 55,364 times by the 398 registered users (Figure 7). The PEGASO Wiki contained [46 articles](#) in July 2013 (126,000 visits). These numbers are likely to increase substantially once the full range of end products for the PEGASO project is released and the dissemination process is completed.

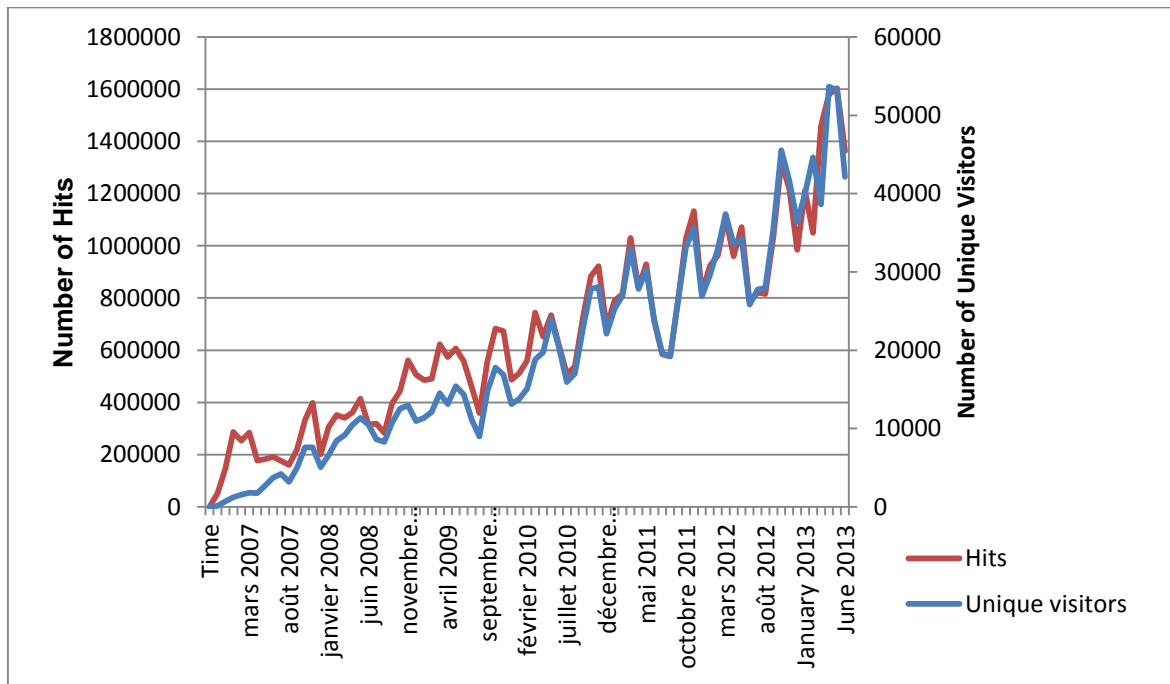


Figure 7: Number of unique visitors and hits for the [Coastal Wiki](#) since November 2006.

**In terms of the lessons learned**, the use of the Wiki-software in projects like PEGASO offers the following different advantages:

- The information is made available online and can therefore reach many interested parties, in particular scientists, coastal practitioners, managers and decision-makers. Moreover, this software allows users to collaborate by creating, editing, and organising the website's content. For the Coastal and Marine Wiki, the Wiki editors are part of a scientific community, which ensures the quality of articles, and anonymous editing is not possible in this system. Since it is an interactive tool, users can improve content. Therefore, working with a Wiki is a continuous process where everyone can view the edit history of each page and see who has made which changes and when.
- The Coastal and Marine Wiki, in particular the PEGASO Wiki portal, can be fully searched and has comprehensive links. In addition, a google search can quickly bring users to the Wiki information page(s) they were looking for.
- Another advantage of working with a Wiki within a project is the system sustainability. While the project website will go offline sometime after the project ends, a Wiki remains available.
- The PEGASO Wiki can also be exploited as a tool to support dialogue between scientists and end-users, facilitating a feeling of ownership of the ICZM Governance Platform for end-users, decision-makers, practitioners, and stakeholders in general.

## 5.2. PEGASO intranet: a shared content management platform

The PEGASO intranet is a document management platform which was developed in parallel to the [PEGASO web portal](#). It can be accessed from the project website, is password-protected and was a shared digital/virtual environment for the consortium and end-users.

The intranet facilitated the sharing of documents between partners, stakeholders and end-users, and acted as a repository for participant resources and results. It was the main communication channel between partners through its main tools such as the forum and the news section in the message board. It stimulated cooperation and working together by providing a common place for finding information, downloading or commenting on reports and sending messages. Each consortium participant received a personal account and password with which she/he can upload and download documents and data, and communicate on the forum.

The supporting technology was selected by WP3 coordinators from a range of existing services, and consists of a 'Liferay' platform, which is an open source code. This platform allows the generation of review tools that are useful for monitoring documents or tracking changes, etc. This platform operates on most internet browsers including Microsoft products, Firefox and others. 'Alfresco' is the open source software implemented for the document management section.

The intranet therefore fulfilled the diverse and multiple needs of the ICZM Governance Platform, providing a common place where information can be systematically stored and retrieved through a 'navigator menu' or search window. New data and applications and various versions of the reports and maps produced during the project can be uploaded onto this repository.

For communication purposes, a calendar with the main events was kept up-to-date. The message board (and 'News' section on the wider PEGASO web portal) facilitated information sharing. A virtual (digital) discussion forum was developed to host online meetings and discussions, which was used for several Virtual Conferences (VICs).

Some figures about the PEGASO intranet are presented below:



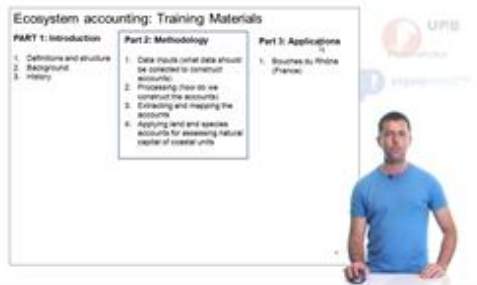

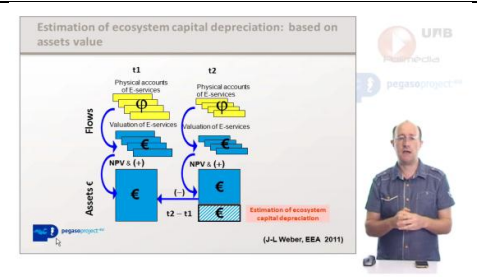
- 200 credentials created;
- 193 news and announcements in the welcome area with more than 29,000 visits;
- more than 7,000 visits to the Forum section (31 Categories, 1,052 posts, 71 participants);
- more than 100 documents stored and 3,541 visits to the "document manager" section;
- during the 1<sup>st</sup> and 2<sup>nd</sup> VICs, 316 and 843 visits were registered respectively.

### 5.3. PEGASO Polimedia Videos

'Polimedia' is a multimedia production system, with educational material content, used to support physical teaching. This teaching material can be distributed via technologies, such as TV, Internet, CDs and mobile phones and more. The recording process combines the simultaneous running of two videos within a single space, with the final product representing a recording of about 10-15 minutes in which the image of the speaker and his/her presentation appear simultaneously. This tool, which was designed at the Technical University of Valencia, has been conducted in the UAB by the Centre for Educational Resources, Faculty of Medicine.

The PEGASO Steering Committee met in Barcelona in September 2012 to decide on the procedures and content of the 2<sup>nd</sup> PEGASO Virtual Conference (VIC02). VICs have been organised through the PEGASO intranet and it was therefore important to find a system that could replace face-to-face teaching about PEGASO tools.

The following 'polimedia' materials were produced in the UAB in September 2012:

Polimedia Videos	Titles, authors, hyperlinks
	<p>Introducing the Map Viewer by César Martínez (UAB):  <a href="http://polimedia.uab.cat/#v_371">http://polimedia.uab.cat/#v_371</a></p>
	<p>Selection and application of the PEGASO ICZM Indicators by Francesca Santoro (IOC UNESCO):  <a href="http://polimedia.uab.cat/#v_381">http://polimedia.uab.cat/#v_381</a></p>
	<p>Land and Ecosystem Accounts, Methodology by Emil Ivanov (UNOTT):  <a href="http://polimedia.uab.cat/#v_386">http://polimedia.uab.cat/#v_386</a></p>
	<p>Mapping the cumulative impact of human activities on coastal and marine ecosystems by François Morisseau (UAB):  <a href="http://polimedia.uab.cat/#v_385">http://polimedia.uab.cat/#v_385</a></p>
	<p>Economic Assessment to support ICZM processes by Pascal Raux (UBO):  <a href="http://polimedia.uab.cat/#v_380">http://polimedia.uab.cat/#v_380</a></p>

In Rabat in March 2013, members of the PEGASO Steering Committee discussed the possibility of producing a second round of 'polimedia videos', focusing on PEGASO products. The idea was to produce something more "attractive", which was not included in the official deliverables. The following 'polimedia' materials were produced in the UAB in September 2013:



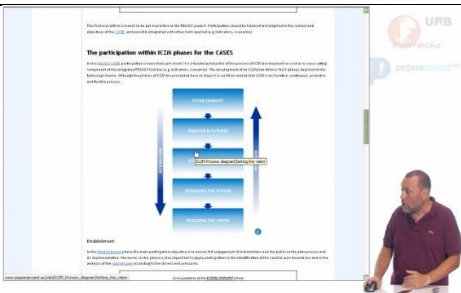

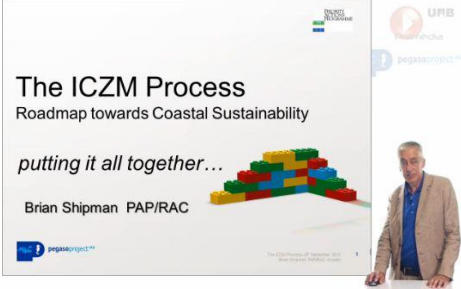
	<p>Participation in ICZM by Stefano Soriani (UNIVE):  <a href="http://polimedia.uab.cat/#v_441">http://polimedia.uab.cat/#v_441</a></p>
	<p>The PEGASO platform. Supporting ICZM in the Mediterranean and Black Sea basins by Gonzalo Malvarez (UPO):  <a href="http://polimedia.uab.cat/#v_442">http://polimedia.uab.cat/#v_442</a></p>
	<p>The ICZM Process - Roadmap Towards Coastal Sustainability by Brian Shipman (PAP/RAC):  <a href="http://polimedia.uab.cat/#v_439">http://polimedia.uab.cat/#v_439</a></p>

Table 3: PEGASO Polimedia Videos

## 5.4. Lessons learned from dissemination activities

With regards to the dissemination activities developed under the PEGASO project, IUCN-Med created a mailing list of over 1,600 contacts from 62 countries at an early stage in the project, in order to send out e-newsletters. Most of the contacts are experts from scientific institutes and universities, governmental institutions, and NGOs working on marine and coastal issues.

IUCN-Med designed a quarterly e-newsletter with a simple and friendly display, which was available into two languages (English and French). They included links to each news item and a contact person to get further information. An attempt was made to create content in the most appealing way possible, bearing in mind how difficult is to write stories about meetings that are part of complex processes and that their ultimate goal is generally to deliver the results at the end of the project.

The e-newsletters were posted on the [IUCN-Med website](#) homepage and on the [PEGASO project description page](#). Twitter has also been used to promote the e-newsletters through two accounts: @llazaromarin (850 followers) and @IUCN\_Med (launched in September 2013).

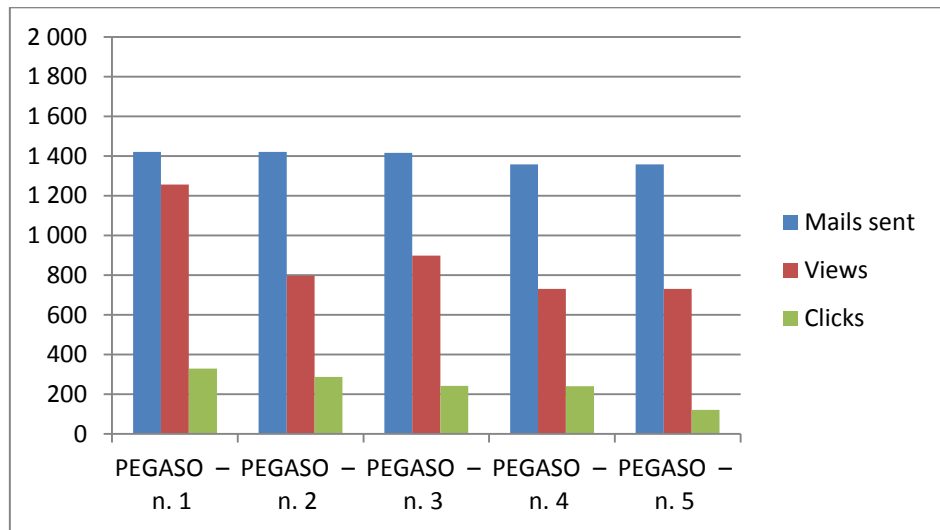


Figure 8: E-mails sent, views and clicks – PEGASO e-newsletters - English version

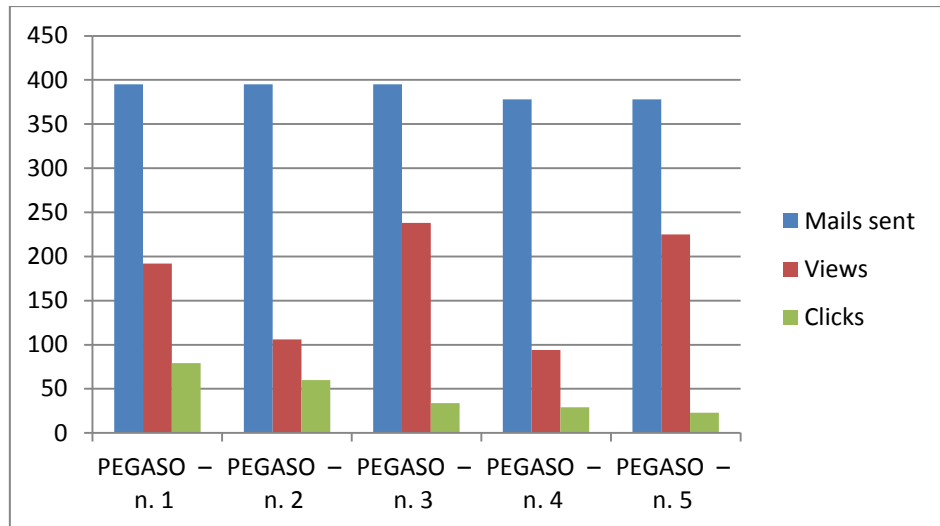


Figure 9: E-mails sent, views and clicks – PEGASO e-newsletters - French version

A positive result was that the number of “unsubscribers” declined over the five newsletters. However, a slight decrease in clicks and views was noticed in almost two years (Figures 8 and 9): more people were interested at the beginning of the project than people who followed up the process (see statistics in Appendix 8).

In terms of the lessons learned from the dissemination activities, it appears that a collaborative project like PEGASO needs a well-coordinated communication/dissemination strategy between all partners. There is great potential for improving outreach through the effective use of communication tools by each partner. There is also room for better identifying primary and secondary audiences, and testing their interest in receiving information about the project. It will be interesting to explore links between social network and e-newsletter dissemination strategies. Good use of social networks by partners could help to improve the dissemination of e-newsletters – e.g. connecting an email system to the Twitter and Facebook accounts of different partners, and offering embedded widgets to share the newsletter on various social platforms.



Regarding the content, the challenge was to continue to make the PEGASO e-newsletters stand out in the crowd and keep readers reading issue after issue. This is a crucial issue for many marketing strategies. One of the most sensitive points was to overcome factual information to dive more into storytelling. This was needed to develop better communication between partners and the project communication leader in order to better understand partners' activities and their potential results. More staff time devoted to communication was also needed.

One point missing in the PEGASO dissemination strategy was to allow interaction with readers. The e-newsletter could encourage interaction through content, e.g. content that asks readers to act – whether something as specific as “Invite them to send feedback”, “Share the e-newsletter with friends” or “Interactive polls” as a fun option, etc.

## 6. Capacity building efforts to support the ICZM Governance Platform

In this report the capacity building efforts developed to support the ICZM Governance Platform are illustrated through three experiences carried out under the PEGASO project:

- (i) The MedOpen virtual training course for ICZM;
- (ii) The training of trainers on public participation, and;
- (iii) The two sub-regional workshops on “Indicators for ICZM in the Maghreb countries (Algeria, Morocco, Tunisia)” held in 2011 and 2013 in Algiers under the auspices of the Algerian Ministry of Environment.

### 6.1. The MedOpen virtual training course for ICZM in the Mediterranean

The aim of the [MedOpen](#) virtual training course on ICZM, run by PAP/RAC on yearly basis since 2004, is to improve capacities for coastal management. The target users of the course are: decision-makers (at local, national, regional, and international level), policy advisors, project managers, teams and experts from international organisations and institutions, academic researchers, students, and all those who are interested in coastal management.

The Capacity Building Plan and the PEGASO Steering Committee meeting held in Barcelona in March 2012 gave the “green light” to conduct the MedOpen 2012 Advanced Course, which was adapted to the needs of the project partners. The main objective of the course was to get acquainted with ICZM in general, but also in more detail as the ICZM process is crucial for the implementation of pilot activities in the CASES.

A total of 35 candidates applied. Most of them were from Mediterranean countries. The others came from Georgia, Romania, Russia, and Ukraine. Three “external” candidates – from Japan and Qatar – expressed particular interest in collaborating with PEGASO.

One particular value of the 2012 MedOpen Advanced Course lied in the wide range of candidate backgrounds, including marine geology, applied and experimental ecology, oceanographic biology, marine biology, spatial planning, economic sciences, ocean policy research, ethnology, engineering and economics, environmental sciences, geography, forest engineering, fisheries biology, earth sciences, marine sciences, marine ecology and soil sciences. Although it may seem that this could make communication difficult, it has successfully contributed to the multidisciplinary approach to ICZM, by opening the door to an inter-disciplinary approach.

The candidates also had a strong and above average academic background. Most of them hold a university degree, either a PhD or MSc degree. In terms of employment, the majority of candidates work for national institutes, universities or research centres.

The overall work of candidates was assessed by taking into account their participation in the ‘Forum discussions’ and ‘Simulation game’, and also their ‘Final essays’. The forum received a very high “viewing” level – over 3,700 hits for just 13 topics from the registered students and lecturers, indicating a very high level of readership by the 35 students. The final essays, mostly based on local case studies, were prepared by 15 students who obtained the MedOpen Advanced Certificate.

Finally, a group of three students attending the 2012 MedOpen session presented a [paper](#) at the MEDCOAST Conference held in Marmaris (Turkey) in November 2013 under the guidance of one of their lecturers.

## 6.2. Capacity building on public participation: training of trainers

While public participation is widely recognised as a necessary tool for ensuring the successful implementation of environmental policies, participatory processes are a fundamental component of ICZM. They are encouraged by the ICZM Protocol for the Mediterranean: Article 14 of the Protocol foresees the appropriate involvement of all stakeholders in the formulation and implementation of coastal and marine strategies, plans, programmes or projects in order to guarantee efficient governance of the ICZM process.

In this context, UNIVE, PAP/RAC and Plan Bleu organised a PEGASO ‘training of trainers’ on participatory methods (Venice, 31 October - 3 November 2011), targeting CASES teams who had expressed their interest in participatory tools, with the following objectives:

- Understand principles and tools for dealing with stakeholders in order to create the basis for sound stakeholder management in the CASES;
- Train facilitators who will be able to promote the application of participatory approaches in the CASES, in particular on how to prepare, conduct and follow up participatory events;
- Prepare facilitators to apply participatory approaches within their CASE;
- Contribute to capacity building for realisation of participatory approaches.

In order to achieve these objectives, the following topics were covered: Principles and tools for stakeholder management; Principles of participatory learning and actions; Using a participatory process, including preparation and follow-up of participatory events; Communication and Group facilitation basics; Problem-solving processes; Group dynamics and dealing with ‘difficult’ situations; Preparing, conducting and following up stakeholder meetings; Participatory methods and feedback techniques.

Thanks to the ‘training of trainers’ on public participation, CASES teams have been familiarised with the general principles and basic concepts for participatory approaches, communication rules (asking for feedback, body language), and stakeholder management tools. Role-plays taught about the specific qualities of a facilitator, who must be a speaker, active listener, and observer. Emphasis was also placed upon how to identify and classify key-stakeholders using the “power and interest map” (stakeholder mapping). A large part of the training was devoted to group facilitation tasks in order to help CASES to prepare, facilitate, and follow-up participatory meetings with stakeholders.

Finally, training course participants have acquired the basic skills and techniques for group facilitation and stakeholder management. The training can be also be considered a public ‘place for participation’ and it was a unique opportunity for strengthening collaboration between Mediterranean and Black Sea CASES. Further advanced training was offered to the participants during the 2<sup>nd</sup> CASES meeting held in Venice in July 2012.

***More information is available on the PEGASO Wiki and intranet: Work Packages > WP-4 > Tasks > Task 4.4 Participatory methods.***

### 6.3. Sub-regional and technical workshops on “Indicators for ICZM in the Maghreb countries (Algeria, Morocco, Tunisia)”

Two sub-regional workshops, held in Algeria (26 September 2011; 13-15 November 2013) and organised by AREA-ED (PEGASO partner) under the auspices of the Algerian Ministry of the Environment and Spatial Planning and the National Coastal Agency, were devoted to technical workshops and capacity building sessions on “Indicators for ICZM in the Maghreb countries (Morocco, Algeria, Tunisia)” (Table 4).

Objectives	Participants
<ul style="list-style-type: none"> <li>- Providing a framework for reflection on “Indicators and ICZM” in the Maghreb countries;</li> <li>- Initiating a process to establish a common core set of indicators for ICZM at sub-regional level (dashboard of common indicators for ICZM in Maghreb countries).</li> <li>- Supporting the National ICZM Strategy under development in Algeria.</li> </ul>	<ul style="list-style-type: none"> <li>- National partners: government services, State agencies (particularly the National Coastal Agency), Universities, NGOs, etc.</li> <li>- Representatives from Morocco and Tunisia.</li> <li>- PEGASO partners and management team.</li> <li>- UNEP/MAP RACS: PAP/RAC, Plan Bleu.</li> </ul>

**Table 4: Sub-regional and technical workshops on “Indicators for ICZM in the Maghreb countries (Algeria, Morocco, Tunisia)” – Objectives and participants – Algiers, 26 Sept. 2011; 13-15 Nov. 2013**

The PEGASO project was considered as an opportunity to promote cooperation in Maghreb countries in order to establish a new framework for discussion and exchange and to capitalise on experiences and feedback about best practices and lessons learned, for the definition of a core set of indicators and the development of standardised methods. This innovative experience has to be strengthened and continue in the long term, with the aim of establishing comprehensive evaluation of the measures to protect coastal areas in Maghreb countries.

#### **Prospects for sub-regional cooperation on ICZM issues between Maghreb countries**

- Contribution of the Maghreb sub-region to PEGASO final reports: preparing summaries for decision-makers, suggesting priority issues and actions;
- Building ‘Geonodes’ for the three Maghreb countries, in connection with the PEGASO SDI;
- Testing and improving PEGASO indicators for marine waters (eutrophication and pollution);
- Testing PEGASO indicators used for LEAC;
- Testing “Urban Metabolism” indicators for the city of Oran (links with the MEDINA project);
- Improving capacity building activities in the Maghreb sub-region: inter-university exchanges, workshops involving stakeholders and civil society in the ICZM process;
- Fundraising to translate PEGASO web pages into French;
- Expressing a proposal on joint projects involving the three Maghreb countries.

With regards to Algeria in particular, the PEGASO project offered an opportunity to extend the CAMP Algeria initiative (2000-2003), particularly for the establishment of coastal area dashboard monitoring. The ICZM Governance Platform helps intensify sharing and enhance the lessons learned in order to transpose the ICZM Protocol for the Mediterranean into national legislation, in particular Law 02-02 of 5 February 2002 on the protection of Algerian coastal areas. The preparation of the national ICZM Strategy has been established in this context, with the support of PAP/RAC and the MedPartnership initiative. Last but not least, knowledge, expertise and data sharing were enhanced and scientist and stakeholder views about coastal areas were reconciled by new teaching modules initiated in the Master Degrees of the National High School of Marine Sciences and Coastal Management. These developments represent a qualitative “jump” for improving new and adapted “coastal governance” in Algeria.

## 7. Lessons learned from participatory events

Throughout the PEGASO project lifetime, a lot of face-to-face meetings, collaborative workshops, and participatory events, in different places and at various scales from local to regional, have made the co-working process within the ICZM Governance Platform efficient: Annual general meetings and assemblies; CASES meetings bringing together CASES teams, local stakeholders, and other PEGASO partners; Side events with the PAP/RAC NFPs during the annual ‘Mediterranean Coast Day’; BSC AG ICZM meetings; ‘Envisioning Workshops’ both at basin scale and in several CASES; Local workshops and capacity building sessions at CASES scale; Training courses, etc.

This section presents the lessons learned from some of these PEGASO events.

### 7.1. Annual and General Meetings, including the Kick-Off Meeting

As ‘collaborative spaces of participation’, the PEGASO kick-off and general meetings can be considered unique opportunities for project partners to meet and interact directly, both between partners and with members of the EUC. Members of the EUC shared their expectations and needs regarding the project with PEGASO partners and provided feedback about the preliminary results and how they meet their respective needs and expectations.

There was also continuity between these annual meetings, which started with a common understanding of the project scope and objectives, and then moved onto the co-definition of issues to be tackled in each of the tasks, the selection of suitable tools to be developed and applied in the CASES, and collective assessments of the preliminary results and their usefulness for the decision-making process. The next steps to be taken were always pointed out and finally, discussion of the main results and outputs was organised.

A key milestone in the PEGASO project was the 3<sup>rd</sup> General Meeting held in Rabat (Morocco) on 19-22 March 2013, with specific sessions dedicated to discussions with the most active members of the EUC. One of these sessions aimed to present the main achievements of the project to end-users. The Project Coordinator presented the major outcomes and products by emphasising cross-cutting aspects between several components: ICZM Governance Platform & legal and institutional stock-taking; SDI and Indicators; Integrated toolbox for application in the ten CASES; Capacity building and dissemination activities, etc. Furthermore, this session focused on the ‘Integrated Regional Assessment’ (IRA) as one of the project’s key final products (Deliverable D5.2). These sessions were an opportunity to ask for feedback from members of the EUC.

According to Pablo Ávila Zaragoza (Andalucía, Spain), the PEGASO IRA should provide: (i) tools for a more efficient and effective decision-making process; (ii) an overview of the current situation in which key issues related to the uses, land use, affections to the environment, and trends are identified; (iii) a set of indicators to visualise trends and aspects to be redirected for the implementation of the ICZM Protocol.

*“The PEGASO IRA will be used by many different end-users, with skills in many different domains (...), so an effort should be made to adapt to the different needs and interpretations. (...) Another aspect to take into account at regional scale is the differences between EU countries and North African and non-EU countries in sharing regulatory standards and rules concerning ICZM (...). The PEGASO IRA could be an excellent tool to identify and assess these differences in order to reduce them (...)” (Ibid, Interview, April 2013).*

Mihail Costache (Romania) gave the following feedback about the PEGASO IRA: *“The PEGASO IRA provides a tool for a more effective decision-making process and better understanding of the impact of human activities on coastal ecosystems. The PEGASO IRA could be used by many different end-users, from different domains (...). The regional nature of the IRA should be also stressed for the identification and assessment of differences between EU and non-EU countries – in terms of the legal aspects of ICZM and other issues concerning coastal zones”* (Interview, May 2013).

Christophe Le Visage (France) was particularly interested in the relationship between IRA and the evaluation of integrated policies: *“IRA seems very close to evaluation in many ways: a “policy-oriented assessment” must be very close to “policy evaluation”. Evaluation is a difficult challenge for integrated policies, at all stages: Ex-ante, when it comes to try and forecast the effects of the planned actions; In itinere, during the policy cycle, and; Ex-post, after a policy cycle has been completed, when the outcomes and results are compared to the vision and initial objectives, before revision (of the policy actions, or objectives, if they proved unrealistic). (...) If IRA can produce integrated assessment and indicators related to integrated policies, it will indeed contribute to bridging the gap between scientists and decision-makers, and more generally between knowledge and decision”* (Ibid).

## 7.2. Meetings especially devoted to the CASES

The PEGASO project organised two meetings especially devoted to the work completed and still to be done in the CASES, in order to develop cross-cutting views between them. These CASES meetings had several objectives, as follows: Identification of priority issues and main drivers for the sustainable development of the CASES; Selection of suitable tools to tackle these issues; Collaboration between CASES and with other partners, local and national stakeholders.

The “Inception CASES Workshop” (Alexandria, 6-8 October 2010) was organised to clarify the content of the CASES: presentation of the tools under development, presentation of each CASE to define which tools may be applied there and for what priority issue, and to analyse the possible input of the CASES for the implementation of the ICZM Protocol.

According to members of the EUC who attended this meeting, it was an opportunity to appreciate the diversity of the CASES, representing a relevant sample of coastal issues – for thematic/sectoral approaches, and also governance aspects. By their diversity (location, scale of analysis, diversity of issues, institutional and governance aspects, experiences of ICZM...), the CASES cover a big part of the coastal situations and issues in the Mediterranean and Black Sea basins. They are an important project component and they can be considered a unique opportunity for large-scale comparison and analysis of the very different situations and responses that ICZM could bring.

The Alexandria Workshop showed that the role of the CASES is more than simple case studies to test the tools under development. The CASES support the implementation of ICZM all around the Mediterranean and Black Sea basins and are not just ‘test sites’. They can be considered a second focal point of the project, dedicated to integration and decision processes – the main objective is still the development of a set of tools dedicated to integration for decision-makers, users and managers. Positive results for this component of the PEGASO project can be seen as a demonstration of the potential both of the PEGASO tools and the ICZM Protocol for the Mediterranean. The CASES can reinforce the idea that the implementation of the Protocol is a priority. They have shown their potential to reinforce the “bottom-up component” of the project.

The presentation of the various CASES showed a well-known fact regarding the results of experiences and studies – that although a broad consensus was reached on the decisions that should be made, these decisions are often not carried through. Each CASE illustrated this fact through difficulties, which are specific but also linked directly or indirectly to the way that decisions are made (or often not made) including: (i) difficulty in building a shared vision among decision-makers about the current situation, and a possible future and strategy to be adopted; (ii) difficulty in establishing a link between public participation and decision-making.

The various CASES represented a sample of interesting problems, including tourism pressures, industrial exploitation, dispersion of skills, short-term goals, overexploitation of resources, difficulty to make protection and development compatible, etc. They represented a catalogue of original and operational responses directly linked to real situations where the ICZM process led to a shared vision between scientists and society. But, very often, this shared vision has not been broken down into actions because it was not supported by decision-makers or private stakeholders, who have not taken the vision into account.

The 2<sup>nd</sup> CASES meeting took place in Venice (Italy) on 1-2 July 2012. By using participatory methods ([Open Space Technology](#)), the aim of this meeting was to present the progress of work in the CASES – work completed, constraints, and results – in order to prepare the next internal deliverable: *“CASES reporting including comparison between CASES and the relevance of CASES in the whole basin – Mediterranean and Black Sea coastal zones”*. The discussions helped better define methods of collaboration between the CASES themselves and between CASES and other project components (ICZM Governance Platform, ICZM toolbox, capacity building activities...), in order to gain a detailed and shared understanding of the current situation and develop proposals for future rules of cooperation.

The meeting focused on following topics linked to the role of CASES within the project:

- Presenting an inventory of tools;
- Clarifying the role of the CASES within the IRA;
- Preparing the two “Envisioning the future of coastal areas” Regional Workshops held in Arles (France) in November 2012 and in Istanbul (Turkey) in December 2012.

### 7.3. ‘Envisioning Workshops’ and Scenario Meetings

The PEGASO project organised three ‘Envisioning Workshops’: for the Mediterranean in November 2012 in Arles (France), for Black Sea countries in December 2012 in Istanbul (Turkey), and finally for both basins during the 3<sup>rd</sup> General Meeting in March 2013 in Rabat (Morocco). These participatory workshops were designed to allow members of the ICZM Governance Platform to discuss the barriers and opportunities facing those affected by the implementation of ICZM, and to better understand how PEGASO data and tools can be used in an integrated way.

#### **Arles ‘Envisioning Workshop’ on ICZM in the Mediterranean**

The Arles workshop (November 2012) aimed to develop and explore future visions for Mediterranean coastal zones. These visions were explored in the context of current pressures and drivers for the future across the basin.



The Arles workshop used a ‘learning by doing’ approach with interactive sessions based on participatory methods and focused on two key ICZM policy issues: (a) preserving natural capital in coastal zones; and (b) ensuring balanced use of coastal zones, and avoiding urban sprawl. The workshop also allowed reflection on the work undertaken about indicators, ecosystem accounts, participatory methods, scenarios, and economic assessment – and how to integrate them. Collective reflection was built on current understandings of the state of the coastal environment, particularly information produced by Plan Bleu: *A Sustainable Future for the Mediterranean* (2005, updated in 2008-2009).

The Arles workshop explored how causal chain analysis, based on the DPSIR framework, could be used as a way of discussing key issues for Mediterranean coastal zones. The workshop considered how scenarios developed by Plan Bleu (Sanna and Le Tellier, 2012) could help to identify how issues might evolve in the future and what this meant for the goals of ICZM within the region. A key goal of the workshop was to identify what people thought were the important focal questions around which scenarios could be built, so that people better understood the impact of the drivers of change at local and regional scales concerning ICZM under a range of plausible futures. One of the conclusions to emerge from the meeting was the need to better understand the ways a vision for the coastal zone might be developed, and the role that scenario tools might play in taking such work forward.

#### **Istanbul ‘Envisioning Workshop’ on ICZM in the Black Sea**

The PEGASO ‘Envisioning Workshop for ICZM in the Black Sea’, organised by BSC PS back-to-back with the 16<sup>th</sup> annual AG ICZM meeting in Istanbul (Turkey, 5-7 December 2012), was instrumental in reviewing the state of coastal governance in the Black Sea region and brainstorming recommendations for the next steps in institutional and legal development. Discussions aimed to assess the potential for ICZM with regard to policy initiatives and support tools as a governance response to threats raised by the impacts of various coastal drivers and pressures in the Black Sea region.

Participants in the Black Sea ‘Envisioning Workshop’ were invited to review: (1) the need for ICZM and the way forward in the region; and, (2) weaknesses and opportunities to develop and disseminate some of the PEGASO tools. Members of the Black Sea AG ICZM, representatives of PEGASO CASES, and PEGASO tool developers shared their expertise and visions for the future. Outcomes aimed to contribute to the shaping and development of the PEGASO outputs for the Black Sea region, such as the roadmap for institutional and legal development, coastal management guidelines (key requirement of the Black Sea SAP, 2009), and the Integrated Regional Assessment (IRA).

The Black Sea ICZM ‘Envisioning Workshop’ followed a stakeholder validation format in two parallel working groups with wrap-up sessions and identified and confirmed the following priority action areas, which indeed resonate well with the considerations described above based on stock-taking themes and issues (see Subsection 3.4). The ‘Envisioning Workshop’ came up with the following conclusions on priorities with regard to coastal governance needs in the region:



### Vision of the Roadmap for ICZM in the Black Sea Region

- ICZM is actually the ecosystem-based governance/management process for the coast. The same can be said of Integrated Regional Base Management (IRBM) and Maritime Spatial Planning (MSP) in their respective ecological scopes.
- The problems with coastal governance are a recognised issue in the Black Sea region, which, from a policy perspective, could be addressed with the development of the concise Roadmap for ICZM in the Black Sea, to set the stage for the future of coastal management in the region.
- PEGASO could commit alongside BSC PS to develop the *Roadmap for ICZM in the Black Sea region*.
- The Roadmap is meant to be a standalone document with potential for being packaged with and commissioning the broader Guidelines, which can be considered attached to the relevant policy document, requested for development in the Black Sea SAP (2009).
- The Roadmap can therefore be seen as part of the larger package, provisionally entitled “*Roadmap and Guidelines for ICZM in the Black Sea*”.
- The policy/introductory part (i.e. Roadmap) would actually be suggested for approval by BSC.
- The Roadmap (or equivalent title document) should be consulted with the BSC for early advice on its appropriateness for formal endorsement<sup>4</sup>.
- Consulting the terminology in Black Sea languages is important before finalising titles of the intended policy document(s).
- *The IRA Summary for Policy Makers* could be used as the starting point for the Roadmap.
- Strong reference to Protocol as a best practice approach would be appropriate in the Roadmap.
- Guidelines should fully use the language of the ICZM Protocol for the Mediterranean and serve to interpret its provisions in order to promote good coastal governance. Above all, this would further harmonise ICZM approaches in the Mediterranean and Black Seas.
- The ICZM Guidelines would go further by incorporating PEGASO tools and products (stock-taking, indicators, marine and land ecosystem accounts, scenario building, SDI, CASES, etc.) and other ICZM tools successfully applied in the Black Sea region (coastal code of conduct, ICZM spatial planning methodology, progress indicators, etc.). The ICZM Governance Platform, including the coastal Wiki and SDI tools, could provide the best format for the presentation and development of Guidelines.

<sup>4</sup> The AG ICZM Chairperson has committed to consult the first draft with the Black Sea Commission Members to seek early advice and thus enhance the acceptability of final results.

### **Rabat 'Envisioning Workshop' on ICZM in Mediterranean and Black Sea countries**

The Arles and Istanbul workshops set the scene for the Rabat one. The Rabat Workshop provided an opportunity to understand geographical differences across the two basins, and to illustrate the use of participatory methods within the ICZM Governance Platform.

The specific aims of the Rabat Workshop (March 2013) were as follows:

- Explore what 'balanced urban development' and 'protection of natural capital' means in the context of ICZM, and how to measure them both qualitatively and quantitatively;
- Provide people with experience of using participatory processes to develop influence diagrams, describing the causal relationships between variables, and the way they could be used to model causality; and,
- Develop insight into how PEGASO tools might be linked and used.

During the workshop, in addition to plenary sessions to discuss the results of the participatory exercises, participants worked in groups of five or six to develop influence diagrams of the factors determining the success or failure of policy goals related to the preservation of natural capital and the control of urban sprawl. Groups were encouraged to think about what the best outcomes might be and identify the major factors that could hinder progress. Their views were captured by asking them to identify which drivers might be controllable or uncontrollable under the best and worse scenarios. There was considerable diversity of thinking between the groups and the resulting paper-based diagrams looked very different. The work of each group was therefore restricted by giving them a limited number of options for each policy theme and potential drivers, and restricting the number of arrows they could use to represent the relationships between them. Participants were encouraged to take a broad view in order to think and represent the system at a high level by simply identifying preconditions and outcomes.

The Rabat Workshop represented high added value for PEGASO and improved understanding of the factors that need to be considered in relation to the policy goals of 'balanced urban development' and the 'preservation of natural capital'. The second aim of the workshop was to explore how participatory methods could be used for the interactive analysis of these two issues. The participatory exercises were considered to be effective in terms of decision support tools and useful ways of engaging with stakeholders. Finally, the workshop was designed to help people in the consortium see how different tools being developed under PEGASO could be linked and integrated.

***For more information, see: Haines-Young et al., 2013.***

## 8. Lessons learned from CASES: relationships between scientists and local stakeholders

This section compiles the contributions of several CASES coordinators and reports on the lessons learned from CASES in terms of relationships between scientists, local decision-makers and stakeholders within the PEGASO pilot study areas.

### 8.1. Relationships with local stakeholders in Cyclades Archipelago, the Greek case study

ICZM requires collaboration between various stakeholders, but in the Cyclades Archipelago CASE, stakeholders have declared that they are neglected and marginalised from the ICZM process. Current coastal area management is based on ‘top-down’ procedures to avoid possible conflicts with stakeholders, leading to arbitrary decisions. Some stakeholders, particularly fishermen, have shown alienation to the process, creating a situation whereby the administration disregards their participation in the planning process. Members of the administration have also declared that they are neglected by the political leadership of the region. Some stakeholders have never been contacted by someone on ICZM, hence their lack of understanding of ICZM and their true position in the process. Several scientists approached local stakeholders for interviews and data collection, but only once and without any follow-up. In many cases, scientists within research projects on ICZM select stakeholders according to how good their cooperation is with them. Any stakeholders that may be uncooperative or oppose the process are left out of the loop, but the ICZM process explicitly demands that all voices must and should be heard.

Hopefully, if the Ministry of Environment, Energy and Climate Change introduce the ‘coastal forum’ institution in its forthcoming national ICZM plan, ICZM planning will be on the right track in accordance with the ICZM Protocol for the Mediterranean.

#### Stakeholder Selection Process

The HCMR team tried to include all stakeholders affected by the site’s coastal issues in the PEGASO CASE, representing most of the sectors and interests, regardless of their opposing opinion, or level of aggressiveness. The identification and selection process was based on the idea that all stakeholders need to be approached and invited to the process and not only the ‘easy’ stakeholders who are well known or high on the administrative ladder, meaning that they are already familiar with such processes.

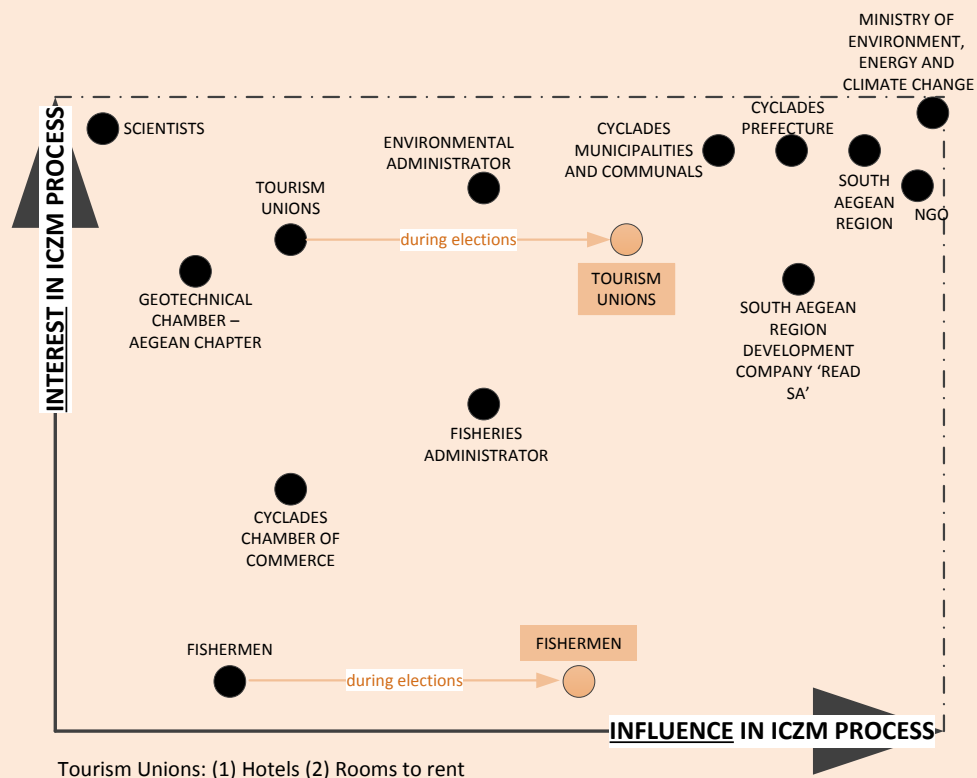
The HCMR team drafted an extensive contact list of possible stakeholders related to the issues selected: fisheries, aquaculture, and transportation. Contacts were made by face-to-face interviews and participatory meetings on the islands. The creation of a localised network of stakeholders was rather easy and straightforward because HCMR have long-standing cooperation with several members of the Region’s administration and these previous contacts made the further exploitation of other local contacts easier. Contacts have been established since earlier work in the area and through long-standing contacts within the local regional administration. The geographic area is rather small and acquaintances are simple to build.

The stakeholders accepted the invitation and were available (commitment). The setting of ‘rules of engagement’ from the HCMR team and the fact that all meetings were meticulously organised, made these meetings successful and a wealth of information was collected. The level of stakeholder involvement was mainly for consultation and information sharing.

The HCMR team decided to use the following tools and methods: face-to face interviews and ‘question-answer’ sessions; questionnaires; production of printed material and tutorials for the dissemination of PEGASO materials and tools; preparation of specific deliverables for the area; stakeholder meetings (round table method); mental modelling on ICZM issues.

### Stakeholder and Conflict Analysis evaluation

In the Greek CASE, there are several categories of stakeholder; each stakeholder was positioned in the Influence/Interest matrix (Figure 10) following the evaluation of their position and abilities. Coordinates are arbitrary and based on expert judgments.



**Figure 10: Influence/Interest matrix - Greek CASE stakeholders**

On the one hand, there are stakeholders opposed to any planning or change in their status-quo because of the mentality they have formed over years of marginalisation and intentional non-engagement in the ICZM process. Regional administration in Greece follows the axiom “*we know what is best for you and we will plan on your behalf, since you voted for us*” and, therefore, several stakeholders such as tourism unions and fishermen do not participate in the process. There is a lack of political will on the part of governments to allow broad participation because they fear loss of power or influence.

On the other hand, there are stakeholders up in the planning ladder who are part of the ICZM process (prefects, mayors, etc.) since they are legally in charge of planning. However, there is also complaint about them from intermediate administrators (civil servants) who are also marginalised in decision-making even in the case of issues under their jurisdiction. Complaints of neglect and marginalisation were made, as well as cases of selective communication between ICZM groups and stakeholders. In addition, there have been complaints that key administration staff for ICZM has been neglected in the planning process. Therefore, integration between stakeholders and within the administration can be characterised as ‘loose’ and mainly based on priorities, political agendas and the requirement for ‘fast and easy’ processes.

The stakeholders involved in the Greek CASE have a highly variable ability to use complex tools for ICZM. Some stakeholders have no capacity to use the PEGASO tools since they have no educational background for this. As we move up along the stakeholder ladder, the capacity to use PEGASO planning tools increases depending on the educational background. For instance, local administrators for fisheries and the environment have shown interest in indicators and LEAC/SDI/GIS. 'Upper level stakeholders' showed great interest in PEGASO tools and in using them in planning processes (LEAC, indicators, accounting and GIS). Local development companies established at regional and prefecture levels were very helpful. The Greek CASE team kept in close collaboration with these stakeholders and achieved real co-working for the PEGASO toolbox.

STRENGTHS	OPPORTUNITIES
<ul style="list-style-type: none"> <li>▪ Good contacts using a long-established network in the area.</li> <li>▪ Good knowledge of the region due to other projects in the area; experiences in ICZM developed by participation in relevant projects (SPICOSA, PERSEUS, COCONET, MESMA, ARCH, SESAME, IASON, etc.).</li> <li>▪ There are very few potential 'opposers' that may hinder ICZM plans.</li> <li>▪ Potential communication methods have multiplied to the benefit of consumers and businesses: internet, cloud computing, smartphones, etc.</li> </ul>	<ul style="list-style-type: none"> <li>▪ The main objective for development in the region is tourism. ICZM could therefore be very useful and important since the main axis of development is around the coast.</li> <li>▪ The 2014-2020 RTD calls for Greece will be organised through the Regions, exploiting Greek-EU joint funding from structural funds; more ICZM-focused projects could be carried out.</li> <li>▪ The Cyclades region has initiated a process for the spatial planning of the islands, so the timing of the presentation of PEGASO experiences, toolbox and deliverables is appropriate.</li> </ul>
WEAKNESSES	THREATS
<ul style="list-style-type: none"> <li>▪ Lack of funding hinders face-to-face contact between scientists and stakeholders.</li> <li>▪ Scientists selectively approached stakeholders, based mainly on the criterion of responsiveness and willingness to provide information. The ICZM process and discretionary selection of stakeholders are not compatible.</li> <li>▪ Some stakeholders are unaware of the ICZM concept. They lack awareness of their influence and position in the ICZM process and connections between scientists and stakeholders are low.</li> <li>▪ Lack of institutional structure suitable for ICZM.</li> <li>▪ Language problems: most of the contacted stakeholders only speak Greek and therefore stakeholder access to important material (written in English) is extremely limited.</li> <li>▪ Stakeholder access to national information in their sector is limited.</li> <li>▪ Not all stakeholders are familiar with new communication methods.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Some stakeholders have developed opposition to any planning due to marginalisation and isolation.</li> <li>▪ Complaints from some stakeholders (fishermen) because they have never been contacted by anyone for ICZM planning; this has created distrust and reluctance on behalf of the stakeholders to participate.</li> <li>▪ Scientists and stakeholders have very different educational backgrounds. Since ICZM tools are meant for scientists, they are useless for some stakeholders.</li> <li>▪ Cultural and traditional aspects may affect how things are perceived by locals.</li> <li>▪ Lack of political will to allow broad participation because politicians fear loss of power and influence.</li> <li>▪ Stakeholder marginalisation and years of no practical progress in sectoral development have created 'consultation fatigue'.</li> </ul>

**Table 5: Scientist/stakeholder interaction – SWOT Analysis – Greek CASE**

## 8.2. Scientist/Stakeholder Collaborations in the French CASE (Bouches du Rhône - Camargue) - SWOT Analysis

The ICZM Protocol for the Mediterranean stimulates national, regional and local initiatives through coordinated promotional action and cooperation with a view to promote efficient governance for the purpose of integrated management. More specifically, Article 14 on participation aims to ensure efficient governance throughout the ICZM process with the involvement of various stakeholders in the processes. Stakeholders may include local communities, economic operators, NGOs, social actors, and scientists.

In the framework of the PEGASO project, the French CASE, based in the Bouches-du-Rhône department, set up a local governance board to increase collaborations between scientists and local stakeholders and jointly identify the issues, problems and potential (scientific) tools that could contribute to managing these issues (Guelmami, Ernoul, and Le Gentil - in press). The first step in developing collaboration was to incorporate a strong local authority with extensive experience in the zone: the Rhône-Mediterranean and Corsica Water Agency, with Pierre Boissery (Programme Officer - Marine and Coastal Zones), Member of the PEGASO EUC. Next, diagnostics were completed in the area, involving interviews with key stakeholders located across the study zone. Ten stakeholders were interviewed and the results were then compiled and analysed to determine the main issues and problems within the coastal zone. The stakeholders expressed their interest and need for additional tools that could help monitor social-economic issues along the coast and an indicator set and LEAC were developed by the scientific team. Throughout the development phase, communication was maintained (through additional interviews, internet site, and local workshops) to ensure the relevance of the tools for local stakeholders. The final results were transferred to the Water Agency who was involved in the process from the initial phases.

Finally, Plan Bleu, IFREMER, Tour du Valat and the Rhône-Mediterranean and Corsica Water Agency, in partnership with the University Mohammed V-Rabat Agdal, organised a participatory workshop to share experiences and debate the work completed so far in the Bouches-du-Rhône (France) and Al Hoceima Bay (Morocco) pilot studies. This workshop was held in Marseilles on 11 February 2013, and benefited from the active participation of a group of local coastal managers and stakeholders. The tools developed under the PEGASO project and their implementation in the CASES were presented, including indicators, environmental and local diagnostics, LEAC and participatory and local scenarios. Interactions with local stakeholders allowed better understanding of the management tools they use every day and developed prospects for future implementation of the PEGASO tools at local level. This workshop also highlighted the progress of the studies carried out in the CASES and several focuses for improvement in the coming months.

Following the collaborative experience in the French CASES, a SWOT analysis (Ghazinoory, Abdi, and Azadegan-Mehr, 2011) was made to analyse the strengths, weaknesses, opportunities and threats of this process (Table 6). The strengths of this collaboration are greatly linked to the attributes and experience of the different participants in the process. Despite these strengths, the collaboration suffered at times due to dominant personalities among some stakeholders.

Strengths (internal)	Weaknesses (internal)
<ul style="list-style-type: none"> <li>- Previous scientific experience in the zone.</li> <li>- Previous successful collaborations established.</li> <li>- A dynamic local authority with links to the project.</li> <li>- Accepted ICZM strategy in the zone.</li> <li>- Experienced and interested site managers.</li> </ul>	<ul style="list-style-type: none"> <li>- Strong, dominant personalities among some stakeholders.</li> <li>- Different time frames for scientists and stakeholders.</li> <li>- Communication difficulties due to different vocabulary (issue of common language).</li> <li>- Existing legislation already burdening local stakeholders.</li> <li>- Scientific and stakeholder objectives do not necessarily match.</li> </ul>
Opportunities (external)	Threats (external)
<ul style="list-style-type: none"> <li>- New regulation requires additional coastal monitoring.</li> <li>- New tools (LEAC) available to stimulate experienced stakeholders.</li> <li>- Financial support available to implement collaboration.</li> </ul>	<ul style="list-style-type: none"> <li>- Additional reporting and legislation is very time consuming and can limit motivation for new tools.</li> <li>- (European/Mediterranean) standardisation of tools can overlook the specificities of individual sites.</li> <li>- Current trends and legislation (due to different status of protection) does not favour coordination between sites and strategies.</li> <li>- The short duration of the project could impede the appropriation of the tools.</li> </ul>

**Table 6: SWOT analysis – scientist/stakeholder collaboration – French CASE**

More structural complications were encountered given the intrinsic differences between scientists and local stakeholders. These differences can be seen repeatedly in environmental projects (Evans, Storer, and Wardell-Johnson, 2011) and have highlighted the need for discourse analysis to identify what the different positions have in common and increase understanding between them (Hewitt, 2009). The differences between scientists and stakeholders were more evident in the workshop setting and the difficulties were often overcome in individual face-to-face meetings. As scientists often communicate with other scientists through articles and conferences, the vocabulary and method for transferring information becomes quite specific. This experience highlights the need to improve the communication skills of scientists for a non-scientific community (Clarke, 2001).

Given the development of new tools and legislation, many opportunities exist to improve collaboration between scientists and other stakeholders. The ICZM Protocol and PEGASO project specifically opened up this opportunity for players in the South of France. First, new regulation requires additional coastal monitoring, creating a local demand for more efficient monitoring tools and analysis. Some new tools (such as LEAC in this CASE) stimulate experienced stakeholders that are accustomed to less visually attractive reporting. It is also important to note that the regional framework for ICZM and European support for the ICZM Protocol have introduced some financial support for implementing the collaboration.

Despite these opportunities, there are several threats that could impact future collaboration. The most notable threat was additional reporting and legislation that could be very time consuming and limit motivation for new tools. Another threat could be that (European/Mediterranean) standardisation of tools can overlook the specificities of individual sites. We also noted that current trends and legislation (due to different status of protection) do not favour coordination between sites and strategies.



The SWOT analysis for the French CASE (Table 6) demonstrates the strengths and weaknesses found in the experience of collaborating with local stakeholders. It is evident that the PEGASO project offered a valuable opportunity to reinforce collaboration between scientists and local stakeholders. At the same time, given the differences in objectives, timing and scales between scientists and local stakeholders, it is important to note that collaboration was driven by the project and that its continuation after the end of the project is not ensured. It would be beneficial to have follow-up projects or formalised institutions that could promote this collaboration independently of short term projects.

#### 8.4. Relationships with local stakeholders and end-users in the Danube Delta CASE

In order to ensure proper representation of the local situation and the wishes of local people in relation to coastal issues, experts from the Danube Delta National Institute for Research and Development (DDNI, Tulcea, Romania) carried out a socio-anthropological investigation. After identifying stakeholders for the implementation of methods like a Focus Group and/or semi-structured interviews, the participatory approach chosen by DDNI started with a socio-anthropological survey.

DDNI experts followed a methodology for the identification and analysis of stakeholders involved in coastal zone management, with the following objectives:

- Identify stakeholder institutions, including local, regional, national and international bodies relevant to coastal zone management;
- Identify the ways in which formal and informal institutions interact to affect the relationship between coastal zone management and local communities;
- Assess the extent to which resource management and use acknowledge local needs.

The objective at the first stage of the work was to identify both the formal and informal institutions that affect the management of the coastal zone. This stage implied collecting data from formal institutions (including their associated laws and regulations) and learned patterns of behaviour, norms and informal rules (informal institutional structures) that govern coastal zone management. There were three aspects to this exploratory stage: identification; relative significance for the interviewee; and the relative power of the institution.

The investigations were carried out with key local informants from different social groups, and identified organisations, scientific and educational institutes, NGOs, local government and community organisations. DDNI specialists tried to capture a broad range of people, e.g. of different ages, gender, and different backgrounds.

These first stages of stakeholder identification and informal interviews were carried out in a structured way, starting with 'in depth' documentation and some informal discussions and interviews, particularly in Sulina in the Romanian CASE coastal zone. DDNI experts started with the documentation of decision-makers or official structures related to coastal management and the identification of the contacts with each stakeholder. The DDNI team had close discussions and contact with all of the stakeholders identified and this was an important factor for the success of the entire participatory approach.



The investigations and informal interviews provided a list of stakeholders and organisations that deal with coastal issues<sup>5</sup>. DDNI experts covered the complexity of the management institutions affecting the coastal zone, and empirical research was carried out with the previously identified stakeholders. Since conflicts are complex phenomena that affect the whole social environment or just parts of it – economic, political, financial, educational aspects, etc. –, the DDNI team identified the following possible conflicts of interest concerning public access to the coastal zone:

- The study area's current economic operation is affected by the conflict generated by the inability of local people to have direct access to natural resources;
- The physical existence of an economic system is threatened such that individuals of different social groups are forced to develop mechanisms incompatible with the law (antisocial acts are known to be committed, regardless of the time and place, as "social evil" is determined by the economic condition of unemployment and labour);
- Socio-political conflicts between decision-makers caused by the overlapping of the area of interest, originating from the uncertainty of the juridical status of the coastal zone and different approaches to activities related to the study area.

After the first stages of stakeholder identification and interviews, DDNI experts applied a new participatory method: the Sketch Match method, which is a workshop method developed by the Netherlands Government Service for Land and Water Management. The method was implemented by the DDNI for the Sulina pilot study, based on previous experience with the Dutch team within the project, 'Room for the River in Cat's bend' (Romania), funded by the Dutch programme partners for water. A Sketch Match is a series of interactive design sessions lasting up to three days in which participants (citizens, decision-makers, farmers, and other stakeholders), under the supervision of a spatial designer and process supervisor, analyse and work out the spatial problem in a specific region. A Sketch Match works like a creative pressure cooker by bringing together a group of interested parties to work intensively on a common design. This creates a lot of enthusiasm and often accelerates the decision-making process. This is worked out with maps and 3D GIS visualisations. The result of a Sketch Match is a spatial design, in the form of a ground plan, map, book, visual story, model, 3D GIS visualisation, or whatever form best suits the project.

The Sketch Match planning methodology proved to be a success for the Sulina case study, ensuring a good cooperation process with various stakeholders and experts, raising awareness among stakeholders related to the sustainable use of their coastal area and particular landscape. The success of this approach was also ensured because of the interdisciplinary topics debated during the design workshops, which combined and thereby integrated the land planning and social and economic aspects. The final sketch took into consideration all the possible solutions drawn by stakeholders according to their point of view and interests, thus giving the possibility of better future coastal area management. It is important that awareness rose among participants during the 2-day planning sessions for better inter-institutional collaboration in Sulina to continue beyond the project.

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<sup>5</sup> Environmental Guard; Administration of Water Basins - Dobrogea Waters; River Administration of the Lower Danube; Sulina Harbour; Sulina Border Police; Sulina 'Liceul Jean Bart' School; Danube Delta Biosphere Reserve Administration; Administration of Free Zone Sulina; Sulina City Hall; 'Delta's Friends' NGO.

## 8.5. Scientist and Stakeholder Collaborations in the Ukrainian CASE

The Bay of Sevastopol has been chosen as one of the PEGASO CASES for the practical application of the project results, to assess local conditions and provide practical and useful end-products for the purpose of ICZM implementation.

The Ukrainian partner (MHI) made an extensive set of potential stakeholders, organised in 6 categories: National authorities; Regional authorities; Local authorities; NGOs (local and regional); Scientific and education organisations; Companies. Several organisations and institutions were identified as stakeholders to present and utilise the project results, including the ICZM NFP in Ukraine, the Ministry for Environmental Protection and Natural Resources, a public administration on ecology and environmental resources in Sevastopol, BSC, Sevastopol's authorities, Stevedore Enterprise, and Sevastopol's department of the geographic society of Ukraine.

The major ICZM Protocol issues for the Bay of Sevastopol have been identified as eutrophication and water pollution, biological diversity loss and the impacts of climate change. A major part of this site's environmental problems is of anthropogenic nature and they are due to poorly managed or uncontrolled exploitation of all natural resources. Another problem preventing efficient ICZM is the absence of a platform for *“coherence between public and private initiatives and between all decisions by the public authorities, at national, regional and local levels, which affect the use of the coastal zone”* (ICZM Protocol for the Mediterranean: 13).

Based on the experience of local participants and the overall consortium of the PEGASO project, tools have been planned for the Bay of Sevastopol, providing scientific support for regional assessment. This is a system that incorporates the results of scientific studies for the Bay of Sevastopol and information about ICZM tools to improve knowledge of the coastal zone and provide tools for scientific support for ICZM. A [Web portal](#), an initial example of a [WMS server](#), and [GIS-type tool](#) for the Sevastopol Bay have been developed and maintained to further improve data coverage and the available tools: legal arrangements, environmental status and assessment, an interactive digital atlas, indexes and scenarios.

This system has made it possible to effectively interact with stakeholders both demonstrating the importance of ICZM principles and the possibilities of ICZM. Regular discussions of all project-related issues with stakeholders, the presentation of current results for the PEGASO project and the assessment of their responses have become part of a joint platform. As a result, a number of letters of endorsement have been issued by stakeholders of different levels and natures, such as the Permanent Commission on Environmental Protection and Safety, and the Sevastopol City Council emergency services, SGS PLUS Ltd. (Sevastopol), Levant Inc. (Crimea), Yalta City Council, the Department of Ecology, etc. This has also made it possible to disseminate the results of this work through local newspapers and television, and by translating issues from the [PEGASO newsletters](#).

The major constraints are due to the absence of a nationally-approved ICZM Protocol for the Black Sea that results in a lack of motivation from stakeholders in following ICZM principles. All ICZM issues are addressed within the framework of national and regional regulations, yet all these issues are poorly addressed considering the state of the Black Sea and its coastal areas. There are national regulations to address individual ICZM issues, there is an ICZM group at the Ministry of Ecology, but an integrated national ICZM strategy does not exist.

## 8.6. Engagement with stakeholders and decision-makers in the Guria Coastal Region (Georgia)

The Black Sea countries joined the PEGASO project through the partner BSC PS, in order to gain more insight and experience with regard to the application of best practices and governance instruments (such as the ICZM Protocol for the Mediterranean), and test these policies in the Black Sea. The Protocol has particularly useful provisions for participation in Article 14, calling on the Contracting Parties to ensure public involvement in the formulation and implementation of ICZM projects, and also for providing information and ensuring rights for the public to challenge the authorities with respect to coastal strategies, plans, programmes and/or projects under consideration. Such a practical approach is very much in line with preferences for participatory processes, as articulated in various policy documents drafted for Georgia.

### **Background and stakeholder identification**

ICZM Initiatives in Georgia (as in all other Black Sea countries) can be traced back in time since the signing of the Bucharest Convention (1992) and the first mention of ICZM in the Odessa Ministerial Declaration (1993). Any initiatives taken were therefore mostly of a top-down nature. There were some national implementation initiatives for the Georgian CASE in the Guria Region. Firstly, the RAMSAR Site (since 1996) and the Kolkheti National Park wetland (since 1999) have been established along the coast at Kolkheti Lowland, and a large and important peatland part of Imnati-Grigoleti and part of the Paliastomi Lake belong to the coastal Region of Guria. The World Bank and GEF supported these initiatives in the period of 1999-2005. A second initiative focused on the development of an ICZM Pilot Project for a small Tskaltsminda community, known as the ECBSea project, which was implemented with the support of Europe Aid in the period of 2008-2009. This pilot activity was complemented by the development of the ICZM Strategy, which has not yet been approved, similar to the draft of the ICZM Law for Georgia, which has also long been pending consultation and adoption.

The approach undertaken in the Georgia CASE was to capitalise on earlier developments and implement the PEGASO process and tools as the continuation and gradual expansion of earlier initiatives, treating the process as part of the national ICZM programme and action plan rather than an isolated and short-term project initiative. This was indeed one of the reasons for selecting the coastal Region of Guria, which had hosted earlier ICZM activities for the Kolkheti wetlands and Tskaltsminda pilot project.

A similar approach was pursued in terms of a participatory process, in an attempt to balance the immediate project need to provide for “participatory action” with the longer term need of avoiding the risk of raising false expectations, without delaying actions and thus risk losing the interest of key stakeholders and decision-makers. It is considered important, therefore, to also maintain the integrity of the process in the post-PEGASO period. The new regional project “Integrated Land-use Management Modelling of Black Sea Estuaries” under the Joint Operational Programme for the Black Sea Basin may provide bridging support. It was a deliberate decision to also include the Georgian CASE in the Guria Region as the pilot study area in this follow-up project, which covers the coastal zone and catchment area.

The first step in the participatory process was the identification of the Guria CASE stakeholders, which was a relatively easy step to make due to a previous history of interaction and earlier project work. Moreover, the chosen CASE coordinator was a key representative of the region's civil society and the leader of a local NGO, the Lanchkhuti Information Centre, which is a key stakeholder in one of the two coastal municipalities of Lanchkhuti and Ozurgeti in the Guria Region.

It is interesting to compare the initial stakeholder list with the list of actual parties involved in the participatory process at various phases of the PEGASO project, which is indicated with bold and colour in Table 7 below.

Stakeholder	Role in coastal zone management
<b>International: Black Sea Commission</b>	<b>Black Sea ICZM guidance and forum (ICZM Advisory Group), international cooperation and exchange with the other PEGASO CASES – thanks to the ICZM Governance Platform</b>
<b>Ministry of Environment &amp; Natural Resources Protection (MoE) of Georgia</b>	<b>Black Sea Commission Member (represented by the ICZM Focal Point and CASE Coordinator)</b>
<b>Ministry of Economy and Sustainable Development</b>	<b>Spatial planning</b>
Department of Tourism, Ministry of Economy and Sustainable Development	Tourism
Ministry of Regional Development and Infrastructure	Water, roads, coastal protection and other infrastructure
<b>GeoStat</b>	<b>Statistical data on socio-economic indicators</b>
MoE National Environmental Agency	Research and monitoring
Guria Governor Administration	Regional government
<b>Municipalities of Ozurgeti and Lanchkhuti</b>	<b>Local municipal government</b>
<b>Grigoleti, Tskaltsminda, Ureki and Shekvetili</b>	<b>Local community government</b>
<b>NGO - Lanchkhuti Information Centre</b>	<b>Public participation, facilitation</b>
Georgia Pipeline Company	Operation of the Supsa oil terminal and its marine base
<b>NGO Tchaobi</b>	<b>Wetland and coastal habitat conservation</b>
Kolkheti National Park	Wetland protected area management
National, regional, local level and other appropriate stakeholders would be invited from the Regional Coastal Council. Members would be people with experience or responsibilities in coastal management on a regional scale, and would include representatives from the central authorities with critical ICZM mandates, executive offices of the Governor of Guria, local government, local self-governance, coastal protection, tourism, environmental and nature protection, fisheries, ports, energy and industry. At least half of the members would be representatives of NGOs and elected bodies of local government.	

**Table 7: List of initially identified ICZM stakeholders and those actually involved, Georgia CASE Site**

#### The participatory process at several levels in the Guria CASE

**International participation** was achieved through presentations and by providing information on planned and implemented activities at various international forums and meetings. Both the Guria CASE coordinator and the ICZM NFP in Georgia made the most of their membership in the ICZM Advisory Group to the Black Sea Commission and regularly reported and provided feedback on progress with CASES implementation in Georgia. A similar approach taken by two other Black Sea CASES (Danube Delta and Sebastopol Bay) proved to be very useful for BSC support, along with interaction with colleagues from other Black Sea countries, providing an important pathway for sharing PEGASO experience.

Equally important was participation in PEGASO CASES, project meetings and numerous training opportunities. The Georgian CASE coordinator participated in Med Open ICZM distant learning, training of trainers on public participation and SDI training, etc. The presence of representatives from the Guria Region – two Chairpersons from Lanchkhuti and Ozurgeti Municipal Councils – at the PEGASO 3<sup>rd</sup> General Meeting (Rabat, Morocco) was a very special participatory experience.

**At national level**, the Black Sea Commission Member of Georgia was kept informed of CASES progress through regular briefings in person. The participation of representatives from central agencies, such as the Ministry of Economy and Sustainable Development and GeoStat, was combined with the continuous participation of the ICZM NFP in implementing the project.

For participation **at regional level**, initial contact was preferred to be “technical” in nature, rather than policy-oriented and it was therefore decided to plan the training workshop for stakeholders at the Guria Region level. The idea was to introduce stakeholders to PEGASO ICZM tools, such as indicators, and then facilitate further stakeholder involvement through a “learning by doing” process. Several important stakeholders were already involved in the process, while other stakeholders would need to be involved in the future. The Guria CASE Workshop, held on 20 November 2013 in Grigoleti (Guria Region, Georgia), is one of the major outcomes, since stakeholders unanimously supported the idea of establishing the Guria Regional Coastal Council. It is worth noting that a similar approach is advocated by both the draft ICZM Law and draft ICZM Strategy for Georgia. With support of the PEGASO project and partners, the stakeholders in Guria indeed voted for these approaches to proceed further with ICZM by establishing a stakeholder forum as a way of advancing coastal management in this region. Another outcome in terms of human capital worth mentioning is that the Guria CASE coordinator was elected Chairperson of the Lanchkhuti Local Council.

**At local level**, the Guria CASE coordinator invited and convened the progress monitoring session with the local Tskaltsminda Community to address one of the activities planned under the CASE work: the participatory assessment and evaluation of the progress achieved for the implementation of the ICZM process, identifying outstanding actions as a follow-up to previously implemented local ICZM pilot projects. The participatory process tried to convey the message of a programme-based approach (evaluating the implementation of earlier projects) and thereby maintain the continuity of ICZM activities at local level.

The participation of the PEGASO Coordinator and WP3 Representative (VLIZ) in the Guria Workshop (November 2013) was of particular importance for Georgia CASE stakeholders to understand the multi-scale nature of ICZM, setting the comprehensive context of links between international, national, regional and local processes. In addition, it was very helpful to demonstrate coastal sustainability indicators, which were already produced by partners for the Danube Delta (Romania, Black Sea) and Bouches du Rhône (France, Mediterranean).

Finally, the Table 8 summarised the Strengths, Weaknesses, Opportunities and Threats (SWOT) for Participatory ICZM in the Guria Coastal Region:

STRENGTHS	OPPORTUNITIES
<ul style="list-style-type: none"> <li>- Existing international/regional network through the Black Sea Commission and its ICZM AG</li> <li>- Best practices set by ICZM Protocol with regard to requirements for public participation and ICZM</li> <li>- Network of Mediterranean and Black Sea ICZM practitioners well established, thanks to the ICZM Governance Platform</li> <li>- International governance supportive of ICZM and participation</li> <li>- Limited but positive experience with participatory stakeholder engagement within the Guria CASE</li> <li>- Some experience gained by national and local coastal managers within international demonstration activities and earlier international/national ICZM efforts</li> <li>- Local stakeholders participating in the ICZM Governance Platform</li> </ul>	<ul style="list-style-type: none"> <li>- Positive attitude expressed by regional and local stakeholders in support of the proposed forum, such as the Guria Regional Coastal Council, and their willingness to participate further</li> <li>- Immediate availability of some international projects in support of participatory ICZM in Guria, and the potential for further EU and regional support through the Black Sea ICZM network</li> <li>- Increased visibility of the Guria coast and the availability of ecosystem-based governance options for currently undeveloped parts of the coastline in the Georgian CASE</li> <li>- Changing policies of the Georgian state with more support for a regulatory framework, including more participation in the decision-making process</li> <li>- Availability of internationally validated toolsets</li> </ul>
WEAKNESSES	THREATS
<ul style="list-style-type: none"> <li>- Lack of some essential coastal data for filling in information gaps and using ICZM tools</li> <li>- Lack of binding instruments in support of ICZM and the participatory process</li> <li>- Weak or non-existent legislation for environmental and strategic assessment or spatial planning, including the integrated framework for coastal development projects, plans and programmes</li> <li>- Development pressures from the private sector along the coastline and lack of setback rules</li> <li>- Decision-making in closed elites versus open process through participatory forums</li> </ul>	<ul style="list-style-type: none"> <li>- Non-binding nature of ICZM instruments, available at international and national levels</li> <li>- Further delays with the introduction of legal and policy instruments for ICZM such as coastal legislation and national strategy and stronger international instruments</li> <li>- Continued trends in coastal development pressures both from private and public funding</li> <li>- Potential for change in national policies with regard to participatory governance, reverting back to a libertarian economy and non-regulation of development pressures, on the coast in particular</li> </ul>

**Table 8: SWOT Analysis for the ICZM process and participation, Georgia CASE Site**

It can be considered an excellent “existence strategy” for the Georgia CASE to proceed with the establishment of the Regional Coastal Council for Guria and to have the consensus of all stakeholders with this regard, much in line with the participatory nature of the PEGASO ICZM Governance Platform, and the requirements of national policy instruments such as the draft ICZM Strategy and draft ICZM Law for Georgia. Guria stakeholders are already beginning to implement the provisions of these important draft national policy documents, and prospects seem positive for the Guria Coastal Region in joining, and also contributing to the Joint Governance Platform for ICZM in the Mediterranean and the Black Sea.



## 9. Some aspects in terms of future prospects

### 9.1. Mediterranean Coast Day as a ‘new tradition’

The Mediterranean Coast Day celebration was launched in 2007 as an event designed to raise awareness of the importance of coastal issues and promote ICZM as the optimal policy framework. Supported by PAP/RAC, the event aims to increase environmental awareness among decision-makers, academia and media, and also attract the attention of all Mediterranean citizens to the pressures to which coastal areas are exposed and the consequence of these pressures on the environment and the quality of life of coastal populations.

From a rather modest event celebrated locally, Coast Day has grown over the years to become a regional event with a central regional celebration organised every year on 25 September in a different country and accompanied by national or local side events organised by countries, regions or cities that feel the need to raise coastal issues higher in their agendas.

The importance of this event was confirmed when it became one of the activities included in the “Action Plan for the implementation of the ICZM Protocol in the 2012-2019 period”, which was adopted by the Contracting Parties to the Barcelona Convention at their 17<sup>th</sup> conference held in Paris in February 2012. This has confirmed that awareness-raising activities play an important role in ICZM because a well-informed, highly aware and ready-to-act society is the best guarantee that ICZM principles and the obligations of the ICZM Protocol will be implemented.

At an early stage in the PEGASO project, the partners recognised the usefulness of such an event for boosting the work of its ICZM Governance Platform and for dissemination purposes. They decided to join the 2010 Coast Day celebration in Portorož (Slovenia), hosted by the Slovenian Minister of Environment and Spatial Planning, with the participation of the President of the Slovenian Parliament. The technical meeting with PAP/RAC NFPs, organised a day before, on 24 September, was an excellent opportunity to present the project to PAP/RAC NFPs and get their validation of the stock-taking questionnaire on legal, institutional and financial aspects related to ICZM in Mediterranean and Black Sea countries (see Subsection 3.4).

#### **Feedback from the PEGASO End User Committee about Mediterranean Coast Day (1)**

*“I am very optimistic, given the active participation at the NFP meeting in Portorož. The active response of the NFPs to the forthcoming ICZM Protocol implementation is indicative of the high expectations of new inter-sectoral ICZM approaches to address existing problems in the Mediterranean and provide more user-friendly and efficient solutions. (...) The very constructive debate among high-level representatives (President of the Slovenian Parliament, ministers, UNEP/MAP Coordinator and EC representative) on the importance of implementing the sustainable management of coastal areas was a very concrete contribution to the celebration of Coast Day. This sent out a very good message to all sectors and developers that “somebody” does care about the implementation of a holistic approach for the quality of life and well-being in Mediterranean coastal areas. Coast Day was very much welcomed by all the media and NGOs” (Mitja Bricelj, PEGASO End User Committee, Interview, December 2010).*

In 2011, Coast Day was celebrated in Algiers under the auspices of the Algerian Minister of the Environment and Spatial Planning. According to the National Coastal Agency representative, this event gave a strong signal of the commitment of the Algerian government to invest in the ICZM process. This event provided the PEGASO project with an opportunity to organise a sub-regional workshop for Morocco, Algeria and Tunisia on indicators of sustainability and indicators for governance adapted to the ICZM process (Algiers, 26 September 2011: see Subsection 6.3 ).

#### **Feedback from the PEGASO End User Committee about Mediterranean Coast Day (2)**

*“Awareness and information are an important aspect that was highlighted, and which should support all actions related to coastal protection in the context of sustainable development. This has led to the integration of partners through a participatory approach. (...) 25 September is the “rendez-vous” for all stakeholders and partners to talk about the coast, its wealth, problems and procedures for its protection and conservation. This is an opportunity to share experiences, and to standardise the approach in order to really share the same language. (...) The sub-regional workshop on ICZM indicators has given access to a common and consistent methodology that meets the main guidelines of the ICZM Protocol for the Mediterranean” (Samira Natèche, PEGASO End User Committee, Interview, January 2012).*

Two meetings organised back-to-back with the 2012 celebration, hosted in Split (Croatia) by the Croatian Minister of Environment, were again an opportunity for PEGASO partners to share the results of their work. During the first one, held on 24 September, they had the opportunity to present the first analysis of the stock-taking results to PAP/RAC NFPs and obtain their feedback. The second one, on 26 September, was a joint meeting of several EU-funded projects: PEGASO, SHAPE, MAREMED and PERSEUS (see Sub-section 4.2).

Finally, the 2013 celebration in Rimini (Italy), hosted by the Regional Minister for Land and Coastal Protection of Emilia-Romagna, was preceded by two PEGASO meetings: the workshop with end-users on Integrated Regional Assessment (22-23 September) and the meeting with PAP/RAC NFPs during which several project products were presented and discussed: i.e. the Conceptual Framework for ICZM, set of indicators, SDI and ICZM Governance Platform.

#### **"Co-working sessions" with scientists and end users of the PEGASO project**

During a 2-day meeting held in Rimini (Italy) on 22-23 September 2013, directly before Mediterranean Coast Day organised by PAP/RAC, “co-working sessions” with PEGASO partners and end-users aimed to bring together active members of the PEGASO EUC to discuss the preliminary results of the IRA, with particular reference to the indicators calculated at local (CASES) and regional levels, and to develop insight into policy responses and guidelines to implement ICZM in the Mediterranean and Black Sea.

Discussion focused on main threats for the Mediterranean and Black Sea and how these threats impact the coastal zone. The presentation of several (methodology and results) tools informed a discussion on policy instruments to respond to the main issues identified and governance aspects. A reflection on the proposed methodology and the usefulness of the ‘PEGASO integrated toolbox’ to support decision-making for ICZM has been developed, in line with one of the main PEGASO principles, which is to work in a collaborative and participatory manner. Final discussion was linked to the preparation of the PEGASO Closing General Meeting (Antalya, Turkey, 14-17 January 2014) and explored possible ways of sustaining the ICZM Governance Platform after the end of the project (February 2014).



## 9.2. Action Plan for the implementation of the Mediterranean ICZM Protocol (2012-2019)

The rationale behind PEGASO was to support the implementation of the ICZM Protocol and contribute to the understanding of the territorial, conceptual, policy and institutional contexts in which this legal document has to be implemented. As stated before (see Section 3), the comprehensive stock-taking exercise had its first significant milestone during the drafting of the “Action Plan for the implementation of the ICZM Protocol in the 2012-2019 period”, adopted by the Contracting Parties to the Barcelona Convention at COP17 in Paris (February 2012). On the other hand, the project had great potential to contribute to the implementation of this Action Plan in terms of both the partnerships and networks established and the specific products and tools provided. The following highlights of some of the expected outputs listed in the Action Plan illustrate the relevance of the project for its (future) implementation (UNEP/MAP, 2012):

- *“Assistance to the Contracting Parties as required in the development of governance structures, including for example the carrying out of gap analyses of legal and institutional arrangements, and the improvement of human and technical capacities.*
- *Development and continuous improvement of the ICZM Governance Platform to support CPs in the implementation of ICZM through the provision of information and expert tools, including its continued maintenance and refinement throughout the whole Action Plan period.*
- *Gathering data and monitoring ICZM indicators for the Mediterranean starting with those related to coastal management in the context of the application of the Ecosystems Approach.*
- *Describe the ICZM process, illustrating and guiding the effective use of tools and instruments.*
- *Programme of high-level seminars, round tables and workshops at regional, sub-regional and national levels to promote the implementation of the ICZM Protocol.*
- *Further development and annual delivery of the MedOpen training course.*
- *Support for and participation in research programmes for ICZM that support the implementation of the Protocol.*
- *Promotion of the ICZM Protocol and good practice in its implementation across the Mediterranean.*
- *Promotion of the ICZM Protocol and its implementation internationally through publications, published papers, networks and conferences.*
- *Identification and development of synergies and partnerships with appropriate networks to assist in the implementation of the Protocol.*
- *Proposal for the establishment of a Mediterranean coastal network to promote the exchange of scientific experience, data and good practices”.*

### 9.3. Priorities for ICZM in the Black Sea region

The experience from Black Sea countries in PEGASO activities, such as participation in stock-taking (see Section 3), engagement in a multi-stakeholder participatory process (such as the Istanbul Envisioning Workshop, see Sub-section 7.3), and the sharing of experiences through the ICZM Governance Platform demonstrated that the coastal management issues faced in the region are multiple and interlinked. Therefore, priority should be given to integrated responses packaged into clearly identifiable and comprehensive actions, for which the following priorities can be recommended:

- Legal and institutional analysis and stakeholder consultation process at all levels in support of the development of the coastal governance legal instrument for the Black Sea.
- Support research and monitoring capacity in the Black Sea region, in order to compile statistical, spatial and progress indicators for ICZM.
- Adapt, develop and deliver a comprehensive set of ICZM training and education packages, focused on decision-makers and practitioners in the region.
- Establish an operational observation system for the Black Sea, its coastal zones and wider catchment basins.
- Sustain the PEGASO ICZM Governance Platform and extend its application to the Southern European Enclosed Seas (Black, Caspian, Mediterranean).

The above priorities were reviewed and validated by the BSC scientific network of key stakeholders and were accepted for inclusion in the SEAS-ERA's Strategic Research Agenda for the Black Sea Basin report, under the chapter entitled "ICZM, links with MSP & IRBM, coastal sciences & engineering" (Tübitak, 2011). These priorities could be put into operation through PEGASO deliverables for the Black Sea basin and by applying the project tools, thus setting a sound basis for sustainability of the ICZM Governance Platform beyond the project lifetime.

## Conclusion

(1) PEGASO was a very ambitious project due to reasons such as: multi-disciplinary and transboundary aspects, geographical scope (two regional seas and ten CASES), number and diversity of partners and end-users, etc. One of the challenges was to gather all the participants on an equal footing within the ICZM Governance Platform, even if each one had his own and specific role, despite many disparities due to those specificities: differences in terms of policy and institutional frameworks, cultural contexts, experiences in ICZM.

(2) After four years of experimental implementations, PEGASO is recognized as one of the few real ICZM projects. The ICZM Governance Platform need to be sustained in a sort of a common “knowledge resources centre”, as suggested by members of the End User Committee, providing access to new knowledge and tools, as well as expertise and guidance to the end-user communities, decision-makers and ICZM practitioners. The interdisciplinary and transboundary network of experts built under PEGASO represents a relevant ICZM community in terms of integrated thinking and collective intelligence. The key to success for this momentum is to consolidate the existing links among participants of the ICZM Governance Platform. The robustness of this platform is certainly linked to the willingness of everyone to invest for its sustainability in short and medium terms, but it is also essential to make it coordinated by a recognized and legitimate structure able to provide support in long term. The ICZM Platform needs a well-positioned leader/coordinator to continue to operate and to maintain dynamism and interactions with current users and potential new ones. Institutional support (porting, management) should be undertaken by PAP/RAC, as the RAC especially devoted to support the implementation and follow-up of the ICZM Protocol under the auspices of UNEP/MAP. As leader/coordinator/manager, PAP/RAC should be supported by a Steering Committee, gathering members responsible for the various components of the platform, in accordance of their specific skills and know-how. In addition, a Technical Board should be responsible for the technical development and support of the ICZM Platform, securing the technical tools already existing (intranet, web portal, wiki), sharing harmonized data base fed by countries and CASES, facilitating dissemination of informations. The last questions concerning the sustainability of the ICZM Platform are related to the hosting in a competent organization, as well as to the consultation of an Advisory Board gathering National Focal Points and representatives of regional/international institutions

(3) The future of the PEGASO project should be together with the RSCs, namely Barcelona and Bucharest Conventions. The ICZM Governance Platform aimed at serving policy implementation under UNEP/MAP and BSC, and the PEGASO outputs represent added-values for the RSCs: for instance, there are interesting results for the EcAp initiative implemented under the auspices of UNEP/MAP, and the ICZM stock-take exercise became a reporting obligation for the follow-up of the ICZM Protocol. The ICZM Platform has to be considered as a network with the perspective to become a publicly available platform and an ICZM infrastructure for the Mediterranean and Black Sea, including stakeholders from countries, regions, municipalities, economic sectors, NGOs, etc., and supporting the initiatives carried out under the RSCs. Since the project aimed at supporting the implementation the ICZM Protocol, the future of the ICZM Platform would depend on active involvement of the PAP/RAC NFPs. Similarly, the existence within the BSC of the Advisory Group for

ICZM (AG ICZM) called for an active contribution in the Black Sea basin. The involvement of NFPs – as end-users of the final products and tools – represent a suitable way for strengthening the ownership of the ICZM Governance Platform. In terms of “partnership” between the RSCs and research institutions under a format that ensures quality of the service and flexibility in management, several options were explored and discussed during the last General Meeting (Antalya, Turkey, 14-17 January 2014), considering the European Topic Centres (ETCs) of the European Environmental Agency (EEA) as source of inspiration. Inviting scientists to present their works at regional policy meetings (for instance NFPs meetings) represent one of those options.

(4) PEGASO revisited and developed useful tools, but useful does not mean usable! According to many members of the PEGASO End User Committee, a tool is not an end in itself but it has to serve a particular purpose. Tools (developed by scientists) are more and more numerous, complex, and difficult to use; some tools need other tools to run themselves... Those constraints limit the operational capacity of the tools, taking them away from their primary role. It is necessary to guarantee technical support and capacity building for national and local institutions, making the available tools known and easy to use by end-users (manuals to use the tools). It is important to train end-users to use PEGASO tools in order to support the ownership of the tools: patterns of operation of the tools, how they should be used and implemented, ensuring the optimal conditions in which they can be operative.

(5) The future and the expansion of the ICZM Governance Platform should be related to the CASES, as a central component of the PEGASO project. Ten CASES were implemented but there are many other territories who deserve to be valued via the platform in order to acquire more and new experiences of ICZM, capitalizing on best practices. In view of additional operational use of the ICZM Platform and PEGASO tools, maintain the PEGASO community/family to maintain its potential and its expertise is fully necessary. That is needed to formalize and enhance the outputs and final products for application in new sites and voluntary territories (CASES 2.0), as components of the ICZM Protocol implementation. Behind the idea of “mushrooming strategy”, there is the challenge of consolidation and replication of the CASES. The suggested concept is quite simple, as follows:

- Identifying and selecting possible new CASES, in close collaboration with relevant authorities and stakeholders, particularly in countries where there was not PEGASO CASES;
- Supporting these new sites/CASES to declare their intent to join the ICZM Platform;
- Offering them access to the network, knowledge, toolbox, and lessons learned;
- In return, new CASES will feed the platform with their own experiences.

(6) Finally, it is needed to consolidate, develop and valorize what PEGASO built and produced (tools, technical products), but also and above all the capacity of collective expertise/intelligence thanks to the integration through a “regional ICZM community”. Created and mobilized during the lifetime of the project, this community showed its ability to bridge the gap between scientists and end-users, notably via integrated exercises: for instance, ‘BBN-Visioning exercises’ were very useful to bring people together to build a common vision, merging modelling and participatory approaches. If the good cooperation spirit/scheme was indisputably the most important added value of the project, keeping alive the ICZM Governance Platform is definitively the new challenge.

Following the “guidelines and lessons learned” for and from the PEGASO ICZM Governance Platform, the challenge is now to make the results of the project “mainstream” and sustain the ICZM Governance Platform in the medium and long term. According to Christophe Le Visage, *“that would mean identifying relevant opportunities, initiatives, programmes and projects linked to the PEGASO approach, in order to continue on the same track. One possible option would be to build a ‘coastal knowledge centre’ as an ‘information portal’ (geographic information, documentary information, metadata) to support ICZM processes and knowledge sharing in the Mediterranean and Black Sea basins”* (Interview, April 2013).

During the four year duration of the project (February 2010 - January 2014), PEGASO delivered innovative and useful services and products. Therefore, the procedure adopted at the last stage of the project was organised along the PEGASO “follow-up strategy” to sustain the ICZM Governance Platform in the future. This strategy is the purpose of Deliverable D2.4B “Business Plan” presented in Antalya (Turkey) at the PEGASO Closing General Meeting (14-17 January 2014).

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## Appendix 1: The PEGASO consortium

PEGASO Partner	Acronym	Country
<b>Eight Universities</b>		
Universitat Autònoma de Barcelona	<a href="#">UAB</a>	Spain
Universidad Pablo Olavide	<a href="#">UPO</a>	Spain
Université de Bretagne Occidentale (UMR AMURE)	<a href="#">UBO</a>	France
The University of Nottingham	<a href="#">UNOTT</a>	United Kingdom
Ca' Foscari University of Venice	<a href="#">UNIVE</a>	Italy
Université de Genève	<a href="#">UNIGE</a>	Switzerland
Université Mohammed V - Rabat Agdal	<a href="#">UM5a</a>	Morocco
University of Balamand	<a href="#">UOB</a>	Lebanon
<b>Six Research Centres</b>		
French Research Institute for Exploration of the Sea	<a href="#">IFREMER</a>	France
Hellenic Centre for Marine Research	<a href="#">HCMR</a>	Greece
Danube Delta National Institute for Research and Development	<a href="#">DDNI</a>	Romania
Marine Hydrophysical Institute-Ukrainian National Academy of Sciences	<a href="#">MHI</a>	Ukraine
National Institute of Oceanography and Fisheries	<a href="#">NIOF</a>	Egypt
National Authority for Remote Sensing and Space Sciences	<a href="#">NARSS</a>	Egypt
<b>Two Regional Activity Centres of the UNEP/MAP</b>		
Plan Bleu	<a href="#">Plan Bleu</a>	France
Priority Action Programme/Regional Activity Centre	<a href="#">PAP/RAC</a>	Croatia
<b>One European Research Centre</b>		
Commission of the European Communities - Directorate General Joint Research Centre	<a href="#">JRC</a>	Belgium
<b>One Regional Organisation</b>		
Permanent Secretariat of the Commission on the Protection of the Black Sea against Pollution	<a href="#">BSC-PS</a>	Turkey
<b>One International Institution</b>		
Intergovernmental Oceanographic Commission	<a href="#">IOC-UNESCO</a>	France
<b>One National Institute</b>		
Flanders Marine Institute	<a href="#">VLIZ</a>	Belgium
<b>Three Non-profit Associations and Organisations</b>		
International Union for Conservation of Nature	<a href="#">IUCN</a>	Spain
Mediterranean Coastal Foundation	<a href="#">MEDCOAST</a>	Turkey
Association for Reflection and Action on the Environment and Development	<a href="#">AREA-ED</a>	Algeria
<b>Two Small and Medium Enterprises</b>		
ACRI Etudes et Conseil	<a href="#">ACRI-EC</a>	Morocco
Tour du Valat Foundation	<a href="#">TDV</a>	France

## Appendix 2: The PEGASO End User Committee

Name	Country	Institution / Function / Details
<b>End User Committee / Mediterranean Section</b>		
Mr Christophe Le Visage	France	<b>Focal Point of the End User Committee.</b> International expert on Integrated Maritime Policy in the Mediterranean
Ms Athena Mourmouris	Greece	Ministry of Environment, Energy and Climate Change, PAP/RAC NFP
Mr Mohamed Farouk	Egypt	Ministry of the Environment, PAP/RAC NFP
Mr Mitja Bricelj	Slovenia	Ministry of the Environment, PAP/RAC NFP
Ms Samira Natèche	Algeria	Ministry of the Environment and Spatial Planning. Plan Bleu and PAP/RAC NFP
Mr Pablo Ávila Zaragozá	Spain	Aquaculture international expert. Aquaculture, Farm Management and Fisheries Agency of Andalusia
Mr Nejib Benessaiah	International	MEDWET, RAMSAR NFP
Mr Bouchta El Mounni	Morocco	Polydisciplinary Faculty of Larache, Tangiers-Tetouan University. Fishery Research National Institute.
Mr Pierre Boissery	France	Rhône-Mediterranean-Corsica Water Agency
Ms Aroussia Khamassi	Tunisia	Office National du Tourisme Tunisien (Tunisian National Tourist Office - ONTT)
Mr Alessio Satta	Italy	Agenzia conservatoria delle Coste della Sardegna (Sardinia Coast Conservation Agency)
Ms Daniela Addis	Italy	Consultant. Environment policy. UNEP/MAP Compliance Committee
<b>End User Committee / Black Sea Section</b>		
Mrs Nino Chkhobadze	Georgia	The Greens Movement of Georgia / Friends of the Earth Georgia; Environmental NGO
Mr Gheorghe Constantin	Romania	Ministry of Environment and Forests, Water Resources Management Directorate (2011)
Mr Mihail Costache	Romania	Ministry of Environment and Climate Change, Directorate of Management and Control of Water and Fisheries Resources (2013)
Mr Konstantin Rashkov Galabov	Bulgaria	Free-lance Consultant. Policy adviser
<b>BSC ICZM NFPs who attended at the PEGASO First General Meeting (Tulcea, Romania, July 2011)</b>		
Mrs Valeria Abaza	Inter-governmental	BSC-PS. Pollution Monitoring and Assessment Officer (PMA Officer)
Mr Yavor Dimitrov	Bulgaria	ICZM NFP. Representative Head, Experts Sector, Planning Department, Black Sea Basin Directorate-Varna
Dr Mamuka Gvilava	Georgia	ICZM NFP Georgia. PEGASO Task Manager for BSC-PS
Mrs Catalina Ispas-Sava	Romania	ICZM NFP Romania. Senior Researcher, National Institute for Marine Research and Development "Grigore Antipa"
Mrs Ekaterina Antonidze	Russia	ICZM NFP Russian Federation Representative. Chairwoman of the Black Sea ICZM Advisory Group, PEGASO Coordinator for BSC-PS, Senior Specialist, Kuban Basin Water Directorate
Dr Bahar Erkopan Eser	Turkey	ICZM NFP Turkey Representative, City and Regional Planner, Ministry of Environment and Forestry

## Appendix 3: Key findings of the ICZM stock-taking for the Mediterranean Region

### Results of the 'ICZM Stock-Taking' for the Mediterranean (PAP/RAC, 2013)

The 'ICZM stock-take for the Mediterranean' offered provided a wealth of data and information about the current state of ICZM in the Mediterranean and the implementation of the ICZM Protocol. The broad pattern that emerged was that there is a substantial level of activity overall, but that the distribution is uneven both thematically and geographically. Early results of the stock-take have already provided information for the approved Action Plan for the implementation of the ICZM Protocol in 2012-2019. The conclusions of the overall responses to the individual Articles are summarised in the table below.

Stock-taking themes	Key findings
Art. 3 Geographical Coverage	<ul style="list-style-type: none"> <li>- The harmonised delimitation of Coastal Zone boundaries is still incomplete. The landward limit varies widely, from narrow coastal strips measured in metres, to those recommended by the Protocol.</li> </ul>
Art. 7 Coordination	<ul style="list-style-type: none"> <li>- Progress is slow in establishing ICZM consultative mechanisms with some examples of good practice. Progress in establishing coordination at national level corresponds to improved coordination at local levels.</li> </ul>
Art. 8 Protection and Sustainable Use of the Coastal Zone	<ul style="list-style-type: none"> <li>- The principle of a "set back" zone for development is widely accepted and, in some cases, long established. Enforcement remains a challenge.</li> <li>- Similarly, control of urbanisation remains a problem as only a minority of countries have development control provisions consistent with the Protocol.</li> <li>- Freedom of access rights to the foreshore and sea by the public are widespread and are seen as common rights across much of the Mediterranean.</li> </ul>
Art. 9 Economic Activities	<ul style="list-style-type: none"> <li>- The use of indicators to evaluate economic impacts on the coastal zone is very limited with no comprehensive activity in this field.</li> </ul>
Art. 10 Specific Coastal Ecosystems	<ul style="list-style-type: none"> <li>- The protection and regulation of sensitive areas through designation is well advanced. Most states have specific protection measures.</li> <li>- International and European agreements and also cooperation programmes have stimulated a high level of activity around the Mediterranean in the field of coastal and marine habitat conservation and protection.</li> <li>- Coastal landscape protection is generally contained within measures intended for the entire national territory rather than specifically for the coast. There is an interesting diversity of landscape typologies.</li> <li>- The specificity of islands is generally recognised in national legislation.</li> </ul>
Art. 13 Cultural Heritage	<ul style="list-style-type: none"> <li>- The protection of land-based cultural heritage is well established. The protection and accessibility of underwater sites however is underdeveloped.</li> </ul>
Art. 14 Participation	<ul style="list-style-type: none"> <li>- The involvement of stakeholders through consultation, formal inquiries or mediation is not seen as a basic right in all countries and where it exists, it ranges from a mandatory right to <i>ad hoc</i> discretionary arrangements. Similarly, arrangements for partnerships are more often short-term and project-based.</li> </ul>
Art. 15 Awareness Raising, Training, Education and Research	<ul style="list-style-type: none"> <li>- There is a huge variety of approaches and a wealth of experience. The annual Mediterranean Coast Day is seen as key activity.</li> <li>- There are relatively few dedicated ICZM centres, but many operating in related fields dealing with the subject. PAP/RAC and MEDCOAST are identified as region-wide networking organisations.</li> </ul>
Art. 16 Monitoring & Review	<ul style="list-style-type: none"> <li>- There is a low level of national inventories for coastal resources and activities, institutions, legislation and planning. The Protocol is not clear on what is meant by such an inventory so there may be scope for some further discussion and guidance.</li> </ul>

Art. 18 National Coastal Strategies, Plans & Programmes, Transboundary Cooperation	<ul style="list-style-type: none"> <li>- There are few national coastal strategies; a number are under preparation.</li> <li>- Only a minority of countries report comprehensive and up-to-date assessment of the use and management of the coast. There is no common methodology for undertaking or interpreting such assessments.</li> <li>- ICZM projects have been common throughout the Mediterranean in the past decade, and nearly all countries report their value in developing national strategy. The CAMP projects predominate both spatially and over time.</li> </ul>
Art. 19 Environmental Assessment	<ul style="list-style-type: none"> <li>- The environmental assessment process is widely used in all but one country; environmental assessments are predominantly used in EU Member and Candidate States.</li> </ul>
Art. 20 Land Policy	<ul style="list-style-type: none"> <li>- Little is known with regard to the amount of coastal land in the public domain. There are public domain models that may be transferable and could provide the basis for transnational projects.</li> </ul>
Art. 21 Economic, Financial & Fiscal Instruments	<ul style="list-style-type: none"> <li>- Only a small minority of states indicate the use of economic or financial instruments to support ICZM.</li> </ul>
Art. 22 Natural Hazards	<ul style="list-style-type: none"> <li>- Comprehensive risk assessments for the coast are rare. There are many sectoral risk analyses such as flooding or pollution, but few have considered the implications of climate change.</li> </ul>
Art. 27 Exchange of Information and Activities of Common Interest	<ul style="list-style-type: none"> <li>- Demonstration projects have had a significant impact across the stock-take, underlying their wider importance both as 'test beds' for the development of ICZM and in contributing to wider experience and policy formulation at higher national and Mediterranean levels.</li> <li>- There are a wide variety of host institutions for ICZM scientific capacity across the region. There is ongoing potential for sharing this expertise through a meta-network such as a "Mediterranean Network of Coastal Research".</li> </ul>
Art. 29 Transboundary Environmental Assessment	<ul style="list-style-type: none"> <li>- Bilateral memoranda of understanding or projects are common and have been particularly successful in promoting cross-border, transnational and interregional co-operation.</li> <li>- Co-operation between states exists for marine pollution prevention, but sustained transboundary co-operation on plans, programmes and projects is not universally applied.</li> </ul>

## Appendix 4: Key findings of the ICZM stock-taking for the Black Sea Region

### Results of the 'ICZM Stock-Taking' for the Black Sea (BSC-PS)

The synthesis report to document the outcomes of the ICZM implementation audit in Black Sea countries (PEGASO Deliverable D2.2C) was produced by BSC-PS. It was co-written by the ICZM NFPs in Black Sea countries, including the AG ICZM Chairperson (Antonidze et al., 2013). The deliverable largely drew on and extended the preliminary findings of the initial stock-taking audit, performed in 2010 and presented in the proceedings of the 11<sup>th</sup> MEDCOAST Conference (Abaza et al., 2011).

The answers given by the BSC ICZM NFPs to each of the 53 stock-taking questions were collated under the headings of 16 logically connected/grouped themes, as defined in the audit questionnaire. Concise assessment of the overall results of the stock-taking was provided, which drew conclusions and gave a preliminary set of recommendations for the possible way forward with the Black Sea ICZM process at national and regional level, with the aim of resolving the issues identified during the stock-taking exercise in the longer term. These findings and conclusions for the Black Sea stock-taking are developed in the table below for each main stock-taking theme.

Stock-taking themes	Key findings
Coastal zone boundaries	- A harmonised delimitation of Coastal Zone boundaries is required.
ICZM legislation	- Defining common principles would help national initiatives to legislate ICZM.
Coordination	- Consultative forums should contribute to integration rather than dilute the focus.
Protection and sustainable use of the Coastal Zone	- Coastal development control, setback regulations and practical mechanisms for guaranteeing cross-shore and long-shore access provisions are required.
Coastal ecosystems, landscapes & cultural heritage	- More attention needs to be paid to marine protected areas, wetland restoration and the protection of coastal landscapes as part of the ICZM agenda.
Participation	- Participation should be seen as an integral part of the ICZM governance process with genuine opportunities and mechanisms for the public to challenge the strategies, plans and projects prior to key decision-making steps.
Awareness raising, training, education & research	- ICZM centres of excellence are missing in the countries and at regional level. - More effort is required to develop and deliver training and education in ICZM.
Monitoring & review	- Monitoring & review of the progress with ICZM should be built into administrative arrangements.
National coastal strategies, plans and programmes	- Regional arrangements could prescribe common formats for guiding national ICZM strategies and plans. - Pilot projects and cases should be pursued to apply ICZM at all levels.
Environmental Assessment guidelines	- Some Black Sea countries need to upgrade their Environmental Assessment systems to bring them in line with best international practice. - Regional arrangements for Environmental Assessment in transboundary contexts should be pursued and agreed upon for the Black Sea marine region.
Land policy	- The various models for the transfer and management of coastal land in the public domain are worth considering by administrations lacking suitable powers or effective legislation.
Economic instruments	- Sound economic and financial instruments are evidently missing in the region.



Natural hazards & coastal erosion	<ul style="list-style-type: none"><li>- Assessment and readiness for resulting climate change and other coastal hazards need advanced planning. The time to start acting is now.</li></ul>
Exchange of information and activities of common interest	<ul style="list-style-type: none"><li>- An easy to use and upgraded common set of coastal (including socio-economic) indicators and ecosystem accounts are warranted to monitor changes in the coastal zones, and to observe the outcomes of management efforts.</li><li>- Use of ICZM progress indicators should be continued on a permanent basis.</li></ul>
Transboundary cooperation	<ul style="list-style-type: none"><li>- International cooperation within the BSC framework is the key driver for ICZM in the region. More visibility and functionality would support the process.</li><li>- Black Sea countries should use the opportunity of Turkey as the only Mediterranean &amp; Black Sea country and promote, adapt and adopt the best management solutions available in the partner marine region, such as the ICZM Protocol.</li></ul>

## Appendix 5: Synergy with other initiatives

### MedPartnership

The UNEP/MAP GEF Strategic Partnership for the Mediterranean Sea Large Marine Ecosystem ([MedPartnership](#)) is a collective effort by the leading organisations and countries sharing the Mediterranean Sea for the protection of the marine and coastal environment. The MedPartnership is led by UNEP/MAP and the World Bank and is financially supported by the Global Environment Facility ([GEF](#)) and other sponsors, including the EU and participating countries. The project is implemented in close association with other relevant regional initiatives, such as [Horizon 2020](#), the [EU Integrated Maritime Policy](#) or the World Bank/GEF Sustainable Mediterranean Program, etc. The project also contributes to the sustainable development objectives of the Union for the Mediterranean ([UfM](#)). It is carried out in the following GEF eligible countries: Albania, Algeria, Bosnia and Herzegovina, Croatia, Egypt, Lebanon, Libya, Morocco, Montenegro, Syria, Tunisia and Turkey, with the additional participation of Palestine.

### ClimVar

The project for the *“Integration of climate variability and change into national strategies to implement the ICZM Protocol in the Mediterranean”* ([ClimVar project](#)) is implemented by UNEP and supported by four executing agencies: UNEP/MAP, Plan Bleu, PAP/RAC, and [GWP-Med](#). Eleven countries are participating in this project: Albania, Algeria, Bosnia and Herzegovina, Croatia, Egypt, Libya, Morocco, Montenegro, Syria, Tunisia, and the Palestine Authority.

The overall project objective is to promote the use of ICZM in participating countries as an effective tool to deal with the impacts of climate variability and change in coastal zones. The project aims to both strengthen knowledge of the impacts of climate variability and change in the Mediterranean and strengthen partnerships, improve capacity building, and establish data and information exchange mechanisms for the integration of climate variability and change within concrete ICZM policies, plans and programmes.

### SHAPE

The [SHAPE project](#) aims to develop a multilevel and cross-sector governance system, based on a holistic approach and the integrated management of natural resources, risk prevention, and conflict resolution among uses and users of the Adriatic coast and sea. Project activities promote the implementation of the ICZM Protocol for the Mediterranean and the [Roadmap for Maritime Spatial Planning](#) (MSP) in the Adriatic region. The primary aim of this report is to encourage and help users/stakeholders to adjust their legal instruments and institutional arrangements to the requirements of Article 7 of the ICZM Protocol. One interesting product from the project is the Explanatory Report on how to address the vertical and horizontal dimensions of coordination and institutional integration for ICZM.



## MAREMED

The [MAREMED](#) project is led by the Provence-Alpes-Côte d’Azur Region (France), in partnership with the Regions of Cyprus, Greece, and Italy, and the [Conference of Peripheral Maritime Regions \(CPMR\)](#) to develop Integrated Maritime Policy (IMP) in the Mediterranean. It aims to strengthen the coordination of regional maritime policies between themselves and also with those in force at national, European and Mediterranean levels. The project focuses on the parts of maritime policy that have a transnational dimension, such as pollution (including small and medium scale accidental coastal pollution), adaptation to climate change in coastal areas, fisheries, and coastal and maritime data management.

### The Bologna Charter 2012

The “[Bologna Charter 2012](#)” aims to reinforce the role of coastal administrations in European policies and initiatives for the Mediterranean. It also promotes a macro-project initiative for the next European Structural Funds programming period (2014-2020) which is designed to produce a coherent Mediterranean macro-thematic and multi-sectoral strategy and is also open to Southern and Eastern Mediterranean coastal administrations.

The 2012-Charter re-launched the principles of the former political agreement (the Bologna Charter 2007, born out of the [BEACHMED-e Regional Framework Operation](#)) and has been developed within the MAREMED project, with the support of the [FACECOAST Med-cluster](#) – a PEGASO partner. The first step towards ratification of the “Bologna Charter 2012”, following its official transmission to the first phase partner administrations (20 Mediterranean coastal administrations), was the meeting held in Bologna (Italy, 29 October 2012) between Emilia-Romagna Regional Councillor of Soil and Coast Defence and Civil Protection, Paola Gazzolo, and the Vice President of the Council of Hérault Department (Languedoc-Roussillon Region, France), Monique Petard.

Two PEGASO partners, UAB and UPO, have joined forces with FACECOAST partners to create a successful project proposal that capitalises on various projects, including the COASGAP project, whose kick-off meeting was held on 19-20 September 2013 in Ferrara (Italy). The PEGASO partners will be in charge of capitalising on the SDI and tools and strengthening the regional network, by suggesting best practices to build relationships with the post-PEGASO Governance Platform.

## MEDINA

[MEDINA \(Marine Ecosystem Dynamics and Indicators for North Africa\)](#) is a 3-year EU funded project (FP7) aiming at enhancing the capacities of North African countries (Morocco, Algeria, Tunisia, Libya, and Egypt) in monitoring their Mediterranean marine and coastal ecosystems, in line with European and Mediterranean environmental policies, conventions and protocols. MEDINA focuses on the full integration of coastal monitoring tools in [GEOSS \(Group of Earth Observation System of Systems\)](#).

Several PEGASO partners are involved in the MEDINA consortium, such as UAB, UPO, NIOF, AREA-ED, IUCN or ACRI-EC, and PAP/RAC and Plan Bleu are members of the Advisory Group. The ‘MEDINA e-Infrastructure’ is similar to the PEGASO SDI and has the same coordinator (UPO).

Terms of reference for collaboration and data exchange between the PEGASO and MEDINA projects have been developed and MEDINA has taken part in many PEGASO capacity building events in ICPC countries, such as Algeria (13-14 November 2013) and Egypt (14-15 December 2013).

MEDINA is one of the rare European projects focusing on North Africa that allows for the development of cross-cutting views between countries and also takes advantage of the work carried out at pilot study level. The project helps cross-border cooperation in the North Africa sub-region and should strengthen the PEGASO approach in SEMCs, particularly in countries without PEGASO CASES (e.g. Algeria, Tunisia, and Libya).

### **PERSEUS**

[PERSEUS](#) (*Policy-oriented marine Environmental Research for the Southern European Seas*) is funded by the EU (FP7) and is a collaborative research project assessing the dual impact of human activity and natural pressures on the Mediterranean and Black Seas. The project combines natural and socio-economic sciences to predict the long-term effects of these pressures on marine ecosystems. PERSEUS aims to implement the MSFD principles across the Southern European Seas (SES - Mediterranean and Black Sea basins) and develops “Stakeholder Platforms” to strengthen communication between scientists and decision-makers. The project also aims to strengthen the application of EcAp, which was initiated in 2008 by UNEP/MAP. Plan Bleu coordinates the “Adaptive policies and scenarios” activities within the project’s “Policy Cluster” (WP6). This UNEP/MAP RAC is also responsible for the tasks related to the socio-economic assessment of maritime and coastal activities. Other PEGASO partners are involved in the PERSEUS consortium.

## Appendix 6: Other experiences of stakeholder platforms

### Marine Ecosystem-Based Management (MEBM) in practice

The first example on an international level is the [Marine Ecosystem-Based Management in practice](#) (MEBM), a partnership between the University of Michigan School of Natural Resources & Environment, Brown University and Duke University, or the development of a platform by the Northwest Atlantic Fishing Organisation ([NAFO](#)). NAFO is an intergovernmental fisheries science and management body founded in 1979, and the MEBM is an approach which “*seeks to manage marine resources in ways that protect ecosystem health while providing the ecosystem services needed by people*”.

Recognising the declining health of the world’s oceans, decision-makers, managers and scientists have called for increased efforts for ecosystem-based management in marine and coastal systems. In many places in North America and around the world, collaborative and adaptive planning and management processes have developed to enable scientists, managers and stakeholders to move beyond the management of single species and single user groups to incorporate complexity, consider larger scales and longer timeframes, and incorporate measures for ecosystem integrity.

NAFO has recently updated its objectives to include an ecosystem approach to fisheries management, going beyond maintaining a sustainable fishery to protecting the associated marine ecosystem from the adverse effects of the fisheries. NAFO has implemented the MEBM approach in [65 case studies](#) around the world and has developed a platform with two sections:

1. The first one is a collection of resources that can assist community groups, decision-makers and researchers in learning more about marine ecosystem-based management with online tools and newsletters, data sources, policy documents and peer-reviewed publications<sup>6</sup>.
2. The second one is the drafting of ten topics to access practical [lessons learned](#) from the 65 case studies. These lessons learned concern governance at different spatial scales.

NAFO is a fairly well designed platform with an easy-to-follow structure and well defined sections. Illustrations (pictures and maps) are available and there is a section for making requests, e.g. if a user is looking for a publication. This platform and case studies do not cover the Mediterranean basin and this could be seen as an opportunity for reinforcing the PEGASO ICZM Governance Platform. The ten PEGASO CASES could feed into the MEBM-NAFO platform thanks to the experiences developed under the project.

### SPINACAM – “Southeast Pacific data and information network in support of integrated coastal area management” project

The [SPINACM](#) initiative supports the implementation and sustainability of integrated coastal area management (ICAM) in the Southeast Pacific region. The project aims to establish an ICAM indicator framework in each country within the Southeast Pacific region (Chile, Colombia, Ecuador, Panama and Peru), with a focus on environmental and socio-economic conditions. The application of a harmonised methodology and the development of a set of indicators among the participating countries allow the calculation of a core set of common indicators at regional level.

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<sup>6</sup> <http://webservices.itcs.umich.edu/drupal/mebm/?q=node/71>,

Information systems are developed at national and regional level, which support both the development of indicators and dissemination of results. Special attention is paid to how indicator-based information is communicated to a wide audience, including technicians and coastal stakeholders. This is achieved by developing fact sheets and score cards for each indicator and a State of Coast report / Coastal Atlas at national level. The project focuses primarily on national priorities and requirements, while seeking to benefit from regional networking and the development of regional products and services as well as national ones.

### **The GFCM multi-stakeholder platform for sustainable aquaculture in the Mediterranean**

The ‘General Fisheries Commission for the Mediterranean ([GFCM](#)) multi-stakeholder platform for sustainable aquaculture in the Mediterranean’ is another source of inspiration at regional level. The GFCM has confirmed its leading role in promoting the management, conservation and sustainable use of living marine resources in the Mediterranean, by recently approving a number of historic conservation and management measures to guarantee the sustainable exploitation of key fish stocks.

GFCM members have agreed upon significant actions to strengthen the control and monitoring of fishing production and capacity by adopting guidelines to guarantee the enforcement of GFCM decisions and strengthen governance in the management of fisheries by establishing protected areas.

The GFCM recognises the key role of aquaculture in achieving food security and economic growth, and has renewed its commitment to foster the sustainable development of aquaculture in the Mediterranean and Black Sea by creating the first multi-stakeholder platform that involves all of the sector’s stakeholders.

2013 saw substantial steps forward in support of the reform process, which was launched in 2009 with the aim of modernising the institutional framework and ensuring more efficient operation of the GFCM. This process capitalises on the efforts of all GFCM Member States and should lay the foundations for enhanced sub-regional cooperation, with particular focus on the long-term sustainability of fisheries and aquaculture in the Mediterranean and Black Sea.

PEGASO has collaborated with the GFPM, in particular for the ‘capacity building workshop on aquaculture in an ICZM framework’ (Greece, 26-27 November 2013).

### **National platforms for Disaster Risk Reduction (DRR)**

“National platforms for Disaster Risk Reduction (DRR)” illustrate experiences on a national scale. Some guidelines and general principles on how to form, run, and sustain national platforms are outlined in the [United Nations Office for Disaster Risk Reduction / UNISDR](#)<sup>7</sup>.

A single approach for national platforms in all countries is neither possible nor desirable since DRR is a country-specific long-term process. This is why national platforms essentially decide on how to organise and run UNISDR guidelines for themselves, according to each country’s needs. Therefore, national platforms are nationally owned and led by a multi-stakeholder forum or committee.

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<sup>7</sup> <http://www.unisdr.org/we/inform/publications/601>

Participation is the primary ingredient for cooperation and is critical for implementing DRR policies and measures at local scale. National platforms build on existing DRR systems and include representatives from all stakeholder categories, such as government, international organisations, NGOs, academic institutions, the private sector and the media.

National platforms on DRR:

- Mobilise DRR resources at national level (fund raising component);
- Are a hub for networking and liaison between different DRR stakeholders;
- Facilitate country-level implementation of the Hyogo Framework for Action<sup>8</sup> ([HFA](#));
- Foster dialogue between different national platforms, regionally and internationally.

80 national platforms have been implemented, including 9 in the Mediterranean: Algeria, Bosnia & Herzegovina, Croatia, Egypt, France, Greece, Italy, Spain, and Turkey.

#### **CAMP Levante de Almeria (Spain)**

The last example focuses on the local level. The [CAMP Levante de Almeria](#) was coordinated by PAP/RAC, the Spanish Ministry of Environment and the Regional Ministry for Environment of Andalusia and was implemented in the 2010-2013 period.

The Feasibility Study justifying the need for this kind of project in the Almeria region revealed the weakness of the coordination mechanisms between the different policies affecting coastal resources, the lack of effective social participation in coastal-related decision-making processes, and the difficulty of implementing sustainable management of coastal areas as administrative responsibilities are too spread out.

The CAMP was designed as an experience for the development and implementation of coordination mechanisms between different administrations and the promotion of social participation in coastal areas for decision-making. All this aimed to truly integrate sustainability principles into a set of sectoral actions.

The project was officially closed in February 2013 during the Final Presentation Conference with political representatives from national, regional and municipal authorities that confirmed their dedication to the project results and showed political will to support its continuation. They particularly appreciated the well-structured and functional institutional coordination and public participation throughout the project duration, which has yielded well-designed and mutually agreed technical proposals that have fed into the main outcome of the project, the [Sustainable Development Reference Framework \(SDRF\)](#). Prior to the Final Presentation Conference, the project results were presented and discussed by the Coastal Commission, which was concluded with the adoption of the Declaration, expressing a political statement about the SDRF and the future implementation of the proposed actions.

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<sup>8</sup> The HFA is a 10-year plan to make the world safer from natural hazards. It was endorsed by the UN General Assembly in Resolution A/RES/60/195 following the 2005 World Disaster Reduction Conference.

The Coastal Commission is composed of the mayors of eight municipalities, representatives from the Regional government, Provincial council, Association of the municipalities and the Ministry of the Environment and Rural and Marine Affairs. This important body was established as the decision-making and executive body of the CAMP three-level governance structure, which provided institutional coordination and social participation. The other two are the Coastal Council, which involves interested parties or public stakeholders representing local associations, environmental organisations, NGOs or business sectors (46 altogether), and the Coastal Forum, which is a platform that involves all citizens or associations in order to generate debate on the issues addressed during project development on its [website](#).

More details can be found in the project's [Final integrated report](#) and in an informative 25-minute [video](#) about the implementation of the CAMP.

## Appendix 7: The Coastal and Marine Wiki

### Coastal and Marine Wiki

The European Network for Coastal Research, ENCORA (2006-2009), united 18 countries and over 2,200 members. Within this network, a portal was created to improve sharing of knowledge and experience within Europe. The [Coastal and Marine Wiki](#) was created in this perspective, a web encyclopaedia with quality controlled information on coastal and marine issues.

The quality control is two-sided, as follows:

1. People who want to edit or create articles have to identify themselves. They have to be registered in the Integrated Marine Information System ([IMIS](#)). The objective of IMIS is to provide information on all topics relevant to marine sciences. The name of the person-editors, their email address and the institute they are affiliated to, are saved in this database. Anonymous contributions are precluded.
2. An international editorial team was created to check articles within their domain of expertise. If an article has been reviewed by a member of the editorial team, a text box is added to indicate this.

Since ENCORA, more project-specific information was integrated in the Coastal and Marine Wiki. Different sub-portals were created, and information was linked to the existing information contained in the Wiki (links between sub-portals). Most of these sub-portals are associated to a project. Each sub-portal has the look and feel of the project website, but duplication of information is avoided. Another advantage is that information will not be lost in time, but will remain available on the Coastal and Marine Wiki even after the project life and beyond the maintenance of the project websites.

#### **Projects making use of the Coastal and Marine Wiki**

The [ENCORA portal](#). The ENCORA project was initiated to improve the sharing of knowledge and experience within Europe, in two respects:

1. Overcome existing fragmentation of coastal expertise. In all European coastal states, many institutions are engaged in coastal and marine studies related to science, practice, or policy. Together, these institutions constitute a huge resource of knowledge and experience. However, because much of this work is carried out in isolation, this resource is not fully exploited.
2. Better exploit scientific knowledge in practice. Scientific knowledge is mainly communicated among fellow experts; scientific publications focus on specific disciplinary aspects and are almost inaccessible to non-expert coastal and marine professionals. Existing publication practices are not appropriate for passing on new insight into practices.

ENCORA organised a number of services enabling coastal professionals to take better advantage of existing knowledge resources in Europe, in order to tackle the challenges raised by the future of coastal zones. These services were implemented by Coordination Offices, established in 18 European countries, and they rely on National Networks, Thematic Networks and Affiliated Networks.



The [Ecotox](#) portal. This portal on ecotoxicology aims to reach a broader public. It intends to discuss and clarify recent Belgian (and Dutch) research related to marine ecotoxicology. Through case studies at different trophic levels, users are introduced to different groups of toxic substances and their effects on marine and estuarine organisms. The portal also aims to provide information on the environmental impact of all of the priority substances listed in the [OSPAR convention](#) and the [Water Framework Directive](#).

The [Euromarine](#) portal. The integrated EuroMarine Wiki Portal enhances the dissemination of knowledge to decision-makers and the general public. The portal includes information from the three marine FP6 networks: [MarBEF](#), [EUR-OCEANS](#) and [Marine Genomics Europe](#). The final printed reports from MarBEF and Marine Genomics Europe were *translated* into Wiki pages, enabling easy updates in the future. A number of the fact sheets produced by EUR-OCEANS are available on the Wiki pages. Wiki pages on marine biodiversity, from genes to marine ecosystems, are continuously updated with the support of experts.

The [Eutrophication](#) portal. The [ISECA](#) (INTERREG) project built an information portal on eutrophication in Europe. The portal gives an overview of legislation regarding eutrophication in this area. It contains examples of eutrophication-related events and illustrates how eutrophication is monitored and modelled. The goal of the portal is to inform the general public about the eutrophication problem.

The [Marine Biotechnology](#) portal. Marine biotechnology explores and uses marine bio-resources as the target for, or origin of, technological applications, which are used for the production of products and services. In the context of a global economic downturn, we are facing complex and difficult challenges such as the sustainable supply of food and energy, climate change and environmental degradation, human health and ageing populations. Yet concurrently, the seas represent one of the most abundant sources of food and energy production on the planet, and contain the potential for countless innovations in drug production, industrial process development, ecosystem management and other related fields. Marine Biotechnology can make an increasingly important contribution towards meeting these societal challenges and supporting economic recovery and growth, by delivering new knowledge, products, and services.

The [MERMAID](#) portal. The MERMAID (EU-FP7) project develops concepts for the next generation of offshore platforms which can be used for multiple purposes. The project does not envisage building new platforms, but will theoretically examine new concepts, such as combining structures for energy extraction, aquaculture and platform-related transport. The concept of multi-use offshore platforms is compared in four different study sites with specific environmental conditions and the strengths and weaknesses are assessed. The project addresses economic, technical, environmental and site-specific challenges. The project outcomes aim for optimised project development of multi-use offshore platforms, best technical practices, reduced environmental impact for these platforms and increased feasibility. This portal captures the output of the MERMAID project and is updated by its project partners.

The [Marine Biodiversity](#) portal. Biodiversity is an all-inclusive term to describe the total variation among living organisms of our planet. In its simplest form, biodiversity or biological diversity is therefore 'Life on Earth' and includes marine biodiversity 'Life in the Seas and Oceans'. The marine environment has very high biodiversity because 32 of the 33 listed animal phyla are represented there. Biodiversity includes the following four main components: Genetic diversity refers to the genetic variation that occurs among members of the same species; Species diversity (taxonomic diversity) refers to the variety of species or other taxonomic groups in an ecosystem; Ecosystem diversity refers to the variety of biological communities found on earth (with ecosystem diversity we generally consider its two levels, that is, communities and ecosystems), and; Functional diversity refers to the variety of biological processes, functions or characteristics of a particular ecosystem.

The [SPICOSA](#) portal. SPICOSA is an EU-FP6 integrated project that aims to create a self-evolving and operational research approach framework for the assessment of policy options for the sustainable management of coastal zone systems. SPICOSA contributed to the understanding of social interactions within coastal zone systems and how they impact the environment and future policies. It supported the implementation of existing EU Directives and ICZM good practices.

The [THESEUS](#) portal. THESEUS develops a systematic approach to deliver a low-risk coastline for human use and healthy habitats. The THESEUS project directly contributes to practical coastal defence planning, in order to provide protection to inhabitants, infrastructures, and economic activities. In order to effectively contribute to the development and implementation of improved flood risk management and mitigation, eight relevant study sites throughout Europe were identified. This portal includes information gathered at the study sites and is updated by the THESEUS partners.

## Appendix 8: PEGASO Newsletters – Statistics

<b>PEGASO NEWSLETTER – no. 1 Spring 2012 (English):</b>	
E-mails sent:	1420
Views (number of confirmed views)	1256
More visited: <a href="http://www.uicnmed.org/newsletter/2012/the_pegaso_project.htm">http://www.uicnmed.org/newsletter/2012/the_pegaso_project.htm</a> <a href="http://195.97.36.231/acrobatfiles/08IG18_Final_Act.pdf">http://195.97.36.231/acrobatfiles/08IG18_Final_Act.pdf</a>	
<b>PEGASO NEWSLETTER – no. 1 Spring 2012 (French)</b>	
E-mails sent:	395
Views (number of confirmed views)	192
More visited: <a href="http://www.uicnmed.org/newsletter/2012/le_projet_pegaso.htm">http://www.uicnmed.org/newsletter/2012/le_projet_pegaso.htm</a> ; <a href="http://www.uicnmed.org/newsletter/2012/les_sites_pilotes.htm">http://www.uicnmed.org/newsletter/2012/les_sites_pilotes.htm</a>	
<b>PEGASO NEWSLETTER – no. 2 Autumn 2012 (English)</b>	
E-mails sent:	1416
Views (number of confirmed views)	796
More visited: <a href="http://www.uicnmed.org/newsletter/2012/al_hoceima_coast_in_morocco.htm">http://www.uicnmed.org/newsletter/2012/al_hoceima_coast_in_morocco.htm</a> <a href="http://www.uicnmed.org/newsletter/2012/progress_on_local_cases.htm">http://www.uicnmed.org/newsletter/2012/progress_on_local_cases.htm</a>	
<b>PEGASO NEWSLETTER – no. 2 Autumn (French)</b>	
E-mails sent :	395
Views (number of confirmed views)	106
More visited: <a href="http://cmsdata.iucn.org/downloads/pegaso_leaflet_fr.pdf">http://cmsdata.iucn.org/downloads/pegaso_leaflet_fr.pdf</a> ; <a href="http://www.uicnmed.org/newsletter/2012/avancement_des_etudes_de_cas_locales.htm">http://www.uicnmed.org/newsletter/2012/avancement_des_etudes_de_cas_locales.htm</a>	
<b>PEGASO NEWSLETTER – no. 3 Winter 2012 (English)</b>	
E-mails sent:	1416
Views (number of confirmed views)	898
More visited: <a href="http://www.uicnmed.org/newsletter/2012/envisioning_the_future_integrated_coastal_zone_management_iczm_workshops_for_the_mediterranean_region.htm">http://www.uicnmed.org/newsletter/2012/envisioning_the_future_integrated_coastal_zone_management_iczm_workshops_for_the_mediterranean_region.htm</a>	
<b>PEGASO NEWSLETTER – no. 3 Winter 2012 (French)</b>	
E-mails sent :	395
Views (number of confirmed views)	238
More visited: <a href="http://www.uicnmed.org/newsletter/2012/ateliers_regionaux_%EF%BF%BDenvisioning_the_future_%EF%BF%BDpour_la_gizc_en_mediterranee.htm">http://www.uicnmed.org/newsletter/2012/ateliers_regionaux_%EF%BF%BDenvisioning_the_future_%EF%BF%BDpour_la_gizc_en_mediterranee.htm</a> ; <a href="http://www.uicnmed.org/newsletter/2012/integration_de_la_planification_de_l%EF%BF%BDespace_maritime_dans_la_gestion_des_amp_en_mediterranee.htm">http://www.uicnmed.org/newsletter/2012/integration_de_la_planification_de_l%EF%BF%BDespace_maritime_dans_la_gestion_des_amp_en_mediterranee.htm</a>	
<b>PEGASO NEWSLETTER – no. 4 Spring 2013 (English)</b>	
E-mails sent:	1357
Views (number of confirmed views)	730
More visited: <a href="http://www.uicnmed.org/newsletter/2013/3rd_pegaso_general_meeting_the_project_gets_more_ambitious.htm">http://www.uicnmed.org/newsletter/2013/3rd_pegaso_general_meeting_the_project_gets_more_ambitious.htm</a> <a href="http://www.uicnmed.org/newsletter/2013/pegaso_informs4_en.htm">http://www.uicnmed.org/newsletter/2013/pegaso_informs4_en.htm</a> <a href="http://www.uicnmed.org/newsletter/2013/pegaso_indicators_factsheets.htm">http://www.uicnmed.org/newsletter/2013/pegaso_indicators_factsheets.htm</a>	
<b>PEGASO NEWSLETTER – no. 4 Spring 2013 (French)</b>	
E-mails sent:	378
Views (number of confirmed views)	94
More visited: <a href="http://www.pegasoproject.eu/wiki/Indicators">http://www.pegasoproject.eu/wiki/Indicators</a> <a href="http://www.uicnmed.org/newsletter/2013/pegaso_informs4_en.htm">http://www.uicnmed.org/newsletter/2013/pegaso_informs4_en.htm</a> <a href="http://www.uicnmed.org/newsletter/2013/troisieme_assemblee_generale_de_pegaso_un_projet_de_plus_en_plus_ambitieux.htm">http://www.uicnmed.org/newsletter/2013/troisieme_assemblee_generale_de_pegaso_un_projet_de_plus_en_plus_ambitieux.htm</a>	
<b>PEGASO NEWSLETTER – no. 5 September 2013 (English)</b>	
E-mails sent :	1357
Views (number of confirmed views)	565
More visited: <a href="http://www.uicnmed.org/newsletter/2013/developing_a_common_conceptual_framework_for_the_implementation_of_the_iczm_background_to_the_iczm_governance_platform.htm">http://www.uicnmed.org/newsletter/2013/developing_a_common_conceptual_framework_for_the_implementation_of_the_iczm_background_to_the_iczm_governance_platform.htm</a> <a href="http://www.uicnmed.org/newsletter/2013/building_research_capacity_in_international_cooperation_partner_countries.htm">http://www.uicnmed.org/newsletter/2013/building_research_capacity_in_international_cooperation_partner_countries.htm</a> <a href="http://www.pegasoproject.eu/">http://www.pegasoproject.eu/</a>	
<b>PEGASO NEWSLETTER – no. 5 September 2013 (French)</b>	
E-mails sent :	378
Views (number of confirmed views)	225
More visited: <a href="http://www.uicnmed.org/newsletter/2013/developpement_dun_cadre_conceptuel_commun_pour_la_mise_en_uvre_de_la_gizc.htm">http://www.uicnmed.org/newsletter/2013/developpement_dun_cadre_conceptuel_commun_pour_la_mise_en_uvre_de_la_gizc.htm</a> <a href="http://www.uicnmed.org/newsletter/2013/deux_nouveaux_ateliers_sur_la_construction_de_scenarios_au_liban_et_en_turquie.htm">http://www.uicnmed.org/newsletter/2013/deux_nouveaux_ateliers_sur_la_construction_de_scenarios_au_liban_et_en_turquie.htm</a>	

