



AQUAMED

**The Future of Research
on Aquaculture in the
Mediterranean Region**

BACKGROUND INFORMATION

Second Open Multi-Stakeholder Meeting
Istanbul, 20 - 21 May 2013



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I. Background Information

AQUAMED is a European Commission-funded support action that aims to develop a cross-functional strategy for sustainable aquaculture research in the Mediterranean region. Its objectives are to contribute to strengthen the links between the main research institutes and key stakeholders in the entire Mediterranean region and to promote innovation, addressing the main issues for the development of a sustainable aquaculture. This will be accomplished by bringing together aquaculture stakeholders across the Mediterranean (Southern Europe and North Africa) with the overall objective to set up a Multi-Stakeholder Platform (MSHP) that will work together to identify and prioritise research needs necessary for a sustainable Mediterranean aquaculture industry.

The MSHP will contribute to the development of a common transnational Mediterranean Strategic Research and Innovation Agenda (SRIA), which represents the shared objectives and synergies between the different countries participating. Once a SRIA is developed, it is expected that the MSHP will become operational with a role to promote and facilitate the mobilisations of resources (financial, man-power, infrastructure) in order to implement the SRIA.

By bringing together stakeholders to develop research priorities, it is intended to ensure that future research funding is strategic, coordinated and orientated towards the biggest challenges of the production sector whilst respecting the principles of sustainability. It is hoped that an operational platform with a common vision and prioritisation will be better able to utilise and pool the limited resources available towards strategic priorities.

It is also expected that the MSHP will help to bridge the gap between research, policy/governance and commercial development. Bridging the “gap” between these areas will improve the sharing and transfer of knowledge between interested parties, thereby ensuring that innovative applications are generated from research knowledge.

During the first MSHP meeting held in Rome (20-21.11.2012), the scene was set for the MSHP and the decisions made were based on the best available information. AQUAMED has been carrying out one of the most comprehensive data collection exercises in the history of Mediterranean aquaculture in order to present the current situation in terms of:

1. Stakeholder Identification:

- Database of major organisations, associations, institutes

2. Research Activity:

- Database of main research infrastructure
- Listing of past research projects (European and national)
- Survey of research priorities for Mediterranean aquaculture
- Identification of indicators for sustainable aquaculture

3. Production Sector:

- Analysis and characteristics of the production sector(s) per country and future trends at regional level
- Mapping of commonalities, synergies and challenges across countries

4. Governance, Policy and Funding:

- Analysis of national strategies and policy for aquaculture development
- Analysis of socio-economic and governance per country

The results and insights from the data collection can be found at the AQUAMED project website (<http://www.aquamedproject.net/index.php/events/past-e/working-document/>) providing a basis for discussion and identification of synergies, common challenges and opportunities within Mediterranean aquaculture.

2. First Open Multi-Stakeholder Meeting

The **AQUAMED** 1st Open Multi-Stakeholder Meeting took place in Rome on the 20-21 November 2012. The aim of the meeting was to identify the research priorities in the Mediterranean aquaculture sector and to explore the potential benefits of setting up a Mediterranean Stakeholders Platform (MSHP). Around 60 stakeholders from the industry, government and research sectors from 13 Mediterranean countries participated in the meeting (Algeria, Croatia, Cyprus, Egypt, France, Greece, Israel, Italy, Lebanon, Morocco, Spain, Tunisia, and Turkey). The summary and full reports of this meeting are available in the link below:

<http://www.aquamedproject.net/index.php/events/past-e/>



3. Consultation on Challenges and Research Priorities in Mediterranean Aquaculture

The consultation process carried out within the AQUAMED project was based on the active participation of >150 stakeholders (SHs) from Industry, Research and Academy, Governmental and non-Governmental Organisations (NGOs). The first survey was carried out during the AQUAMED 1st Open Multi-Stakeholder Meeting in Rome. A second survey was carried out in January 2013 to include more stakeholders (see figure below):

- ✓ To get information and consensus on future trends
- ✓ To identify knowledge gaps and challenges
- ✓ To prioritize research needs

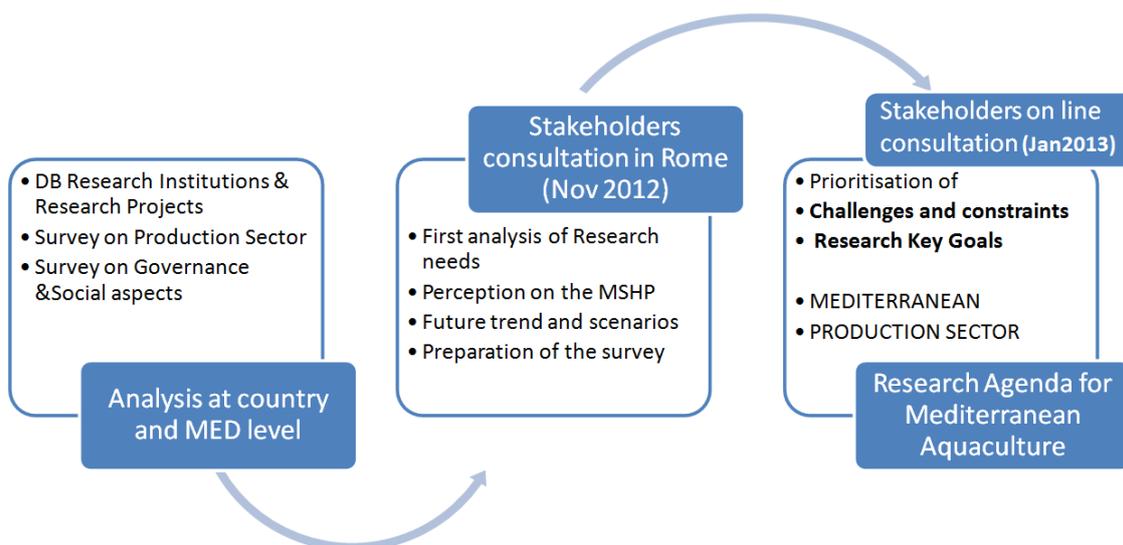


Figure 1: Stakeholder consultation process

All aquaculture sectors were covered: Fish and Shellfish, Marine and Freshwater.

The results coming out from this consultation process will be presented during the AQUAMED 2nd Open Multi-Stakeholder Meeting that will be held from the 20-21 May 2013 in Istanbul (Turkey).

4. Recommendations for the Plan of Action

Based on the consultation process, the main constraints have been selected to build a Plan of Action together with the stakeholders that will participate in the AQUAMED 2nd Open Multi-Stakeholder Meeting.

These constraints have been linked with the main Goals and Sub-Goals that are necessary to achieve in order to overcome the constraint.

The selected constraints and associated goals and sub-goals are presented below. The numbers between brackets state the ranking made by the stakeholders for each constraint (1-84), goal (1-31) and sub-goal (1-77).

WG 1 - Simplify administrative procedure for licensing

Constraint category: Governance – Administration

Top Constraint	Goals related	Related Sub-goals Description
Long time to complete licence/authorization procedure (1)	To develop policy for national aquaculture (2)	Support to the simplification of administrative process (time, costs, burden..) for licensing (2)
Associated Constraints	To guarantee the integration of aquaculture activities and aquaculture management policy with the National and European legislative frameworks (9)	
- Overlapping of many legislations and Ministries (5)		Regulation of aquaculture activities according to National and European legislation (e.g. for European countries Water Directive 2000/60CE, Marine Strategy Directive 2008/56CE) (31)
- Lack of a single administrative body in charge of aquaculture (18)		Identification of criteria for site selection and monitoring in aquaculture (13)
- Bureaucracy costs (38)		
- Local difference in the application of law and procedures (60)		
- Limited license period (64)		

WG 2 - Spatial Planning for aquaculture development

Constraint category: Governance – Policies

Top Constraint	Goals related	Related Sub-goals Description
Lack of long-term spatial planning for aquaculture development (2)	To develop policy for national aquaculture (2)	Support to the territorial planning and to the identification of allocated zones for aquaculture (5)
Associated Constraints	To reduce conflicts over space between aquaculture and other human activities (territorial planning) (8)	
- Limited space/land availability (21)	To guarantee the integration of aquaculture activities and aquaculture management policy with the National and European legislative frameworks (9)	
- Limited water resources availability (71)	To develop or adapt tools and measures in support of appropriate environmental governance for aquaculture (18)	
		Identification of criteria for site selection and monitoring in aquaculture (13)
		Use and development of chemical/biological indicators of environmental quality (22)
		Development of mathematical models for the prediction and estimation of potential environmental impact (42)

WG 3 - Policy for Market & consumers

Constraint category: Governance – Policies

Top Constraint	Goals related	Related Sub-goals Description
Weak policies on the market (4)	To better understand the consumers demand and adapt productions to it (22)	Communication and marketing strategies to improve consumer perception and increase the consumption of aquaculture products (17)
Associated Constraints - Lack of media campaign on aquaculture related to benefits and respond to misleading claim) (7) - Market price (unstable, low, high) (16) - Market changes (lack of technological innovation and adaptive capacity) (65)		
	To understand the dynamics of Mediterranean seafood markets (29)	New communication strategies to improve the general perception of aquaculture and its products (including social networks and divulgation campaigns) (14)

WG 4 - Sustainable Feed (FW and SW)

Constraint category: Economic

Top Constraint	Goals related	Related Sub-goals Description
High feed cost (1)	To advance feed technologies to produce cost effective feed with improved quality (31)	Technologies and system to reduce feed cost (38)
Associated Constraints		To improve feed assimilation and conversion rate (56)

WG 5 - Environment

Constraint category: Environment – Food Safety

Top Constraint	Goals related	Related Sub-goals Description
Pollution threat (other human activities) (6)	<p>To guarantee products with high quality standards and maximize human health benefits (3)</p> <p>To guarantee the safety of aquaculture products (5)</p>	Prevention and control of contamination in aquaculture products (6)
Associated Constraints		Identification of factors that affect the products nutritional properties and final quality (21)
- Algal blooms (anoxia) (27)		Technologies, analyses and control methods for biotoxins contamination in aquaculture products (48)

WG 6 - Knowledge management & transfer

Constraint category: Social – Extension Service & Research

Top Constraint	Goals related	Related Sub-goals Description
Inadequate research/farmer/extension linkage (15)	<p>Efficient utilisation of research outputs and knowledge transfer (1)</p> <p>Development of networks, a both national and international level, with the involvement of research scientists and stakeholders (4)</p> <p>To enhance interdisciplinary research projects, scientists mobility and the training of new professional figures (7)</p>	Transfer of research outputs to the industry (1)
Associated Constraints		Development of databanks and virtual platforms for research (26)
<p>- Limited research information exchange and technical findings (20)</p> <p>- Limited documentation to facilitate investment in commercial aquaculture (51)</p>		

WG 7 - Disease management in aquaculture

Constraint category: Technical – Disease

Top Constraint	Goals related	Related Sub-goals Description
Increasing/emerging disease (74)	To enhance health and resistance to pathogens (10)	Research on epidemiology of aquatic animal pathologies (bacteria, viruses, parasites) and risk analysis) (4)
Associated Constraints		
- Low availability of vaccines and therapeutics (78)	To improve diagnostic tools, control and prevention of pathologies (11)	Development of systems for the early diagnosis of pathogens (7)
		Technologies and systems to reduce the incidence of disease/ parasite infestations (10)
		To improve access to field data with the possibility of building a transparent surveillance and reporting network on fish infections/ diseases and their treatment to Regulatory Authorities (11)

WG 8 - Environmental management & governance (NGO)

Constraint category: Governance – Policies

Top Constraint	Goals related	Related Sub-goals Description
Weak policies to manage natural resources (6)	To better understand the interaction between aquaculture and environment (12)	Development of risk analysis* methods in aquaculture (impact on natural resources) (16)
Associated Constraints		
- Lack of reward/fiscal incentives scheme for performances outcomes (37)	To reduce the impact of aquaculture on the environment and biodiversity (17)	Biosafety measures for the use of alien species in aquaculture (25)
		Efficient use of water resources and maintenance of water quality (29)
		Impact of pathogens introduced by aquaculture and wild populations (33)
		Sustainable raw materials (replacement of fish oil and fish meal) and alternative feed (60)

* PA for risk analysis may also be carried out on the following topics: alien species, water quality, pathogens and raw materials or others



5. Questions and Answers

Why should I get involved?

The future of Mediterranean aquaculture is uncertain as it faces challenges from within the production sector and must deal with many external factors that could prevent the sector from realising its full potential. Currently, both commercial development and RTD activity is fragmented and uncoordinated, resulting in sub-optimal results. To move forward, a concerted effort and mobilisation of actors within the sector is required to overcome the current bottlenecks, both in production but also in the governance system that supports/inhibits development. We believe that a MSHP could bring together a critical mass of interested parties to bring about real tangible change.

What is the legal status of AQUAMED?

AQUAMED is currently a project funded by the EC that is approaching the end of its funding period. It is hoped that the MSHP will continue its activity in the framework of a followup EU activity and under the umbrella of the CAQ (Committee of Aquaculture), which is a subcommittee of the GFCM (General Fisheries Commission for the Mediterranean).

Will there be a membership fee for the MSHP?

Currently, at this stage in the MSHP's development, there is no fee as the construction phase is supported by an EC-funded initiative. At the Istanbul meeting, discussions will take place on the role and future status of the MSHP and needs to facilitate its operation.

What type of stakeholders should be involved?

Any interested parties with an interest in the focus of research on Mediterranean aquaculture (research institutes, universities, supply sector, funding agencies, etc.) as well as beneficiaries of the knowledge that will arise from the research (producer representatives, private companies, policy makers, civil society organisations, etc.).

How does AQUAMED relate to the European Aquaculture Technology and Innovation Platform (EATiP)?

EATiP is currently an observer on the AQUAMED project. It is expected that any SRIA developed by the MSHP for the Mediterranean will be complementary to the EATiP Vision and Research Agenda with an added element that includes the needs and challenges of the North African countries involved in the platform.