NEWS-LETTER

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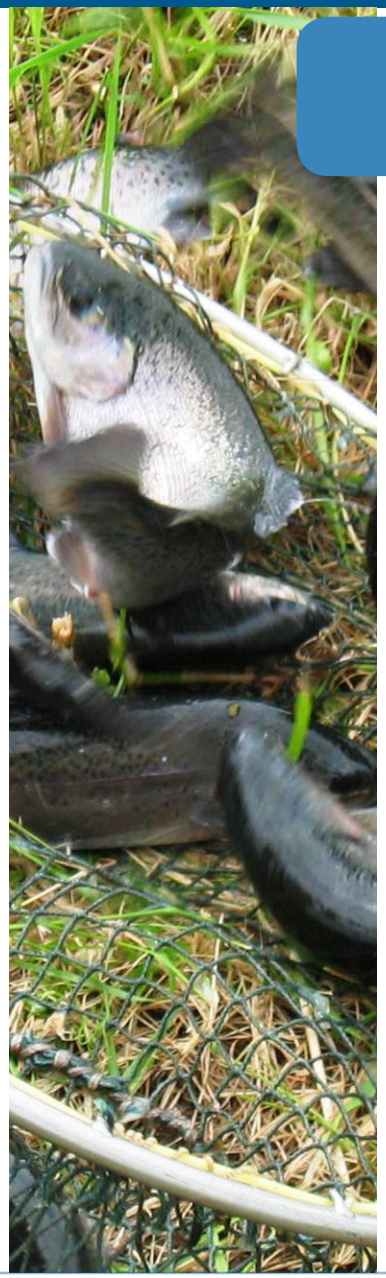


Latest News from OrAqua

Welcome to the first OrAqua Newsletter

A highly committed and qualified consortium met at Ås in Norway in January and kicked-off the OrAqua project. The 13 OrAqua project partners form a strong and multidisciplinary consortium that includes four universities, five aquaculture research institutes, two research groups in social science, the Federation of European fish farmers, the fish farming company Culmarex and two organic certification/control bodies.

The main outcomes of the OrAqua project will be recommendations on how to improve the EU regulation and a Policy Implementation Plan (PIP). Furthermore, the project will deliver recommendations on how to enhance economic development of the European organic aquaculture sector.

To ensure interaction with all relevant stakeholders, a multi stakeholder platform is established. Here, a wide range of actors from several countries participate and interact. In order to obtain relevant input and feedback, OrAqua will bring together representatives of consumers, farmers, hatcheries, breeders, feed and technology suppliers, regulation, certification, processing, wholesalers, retailers, research groups, projects and technology platforms in Europe and other continents. The OrAqua multi stakeholder platform will facilitate the consultation with stakeholders and dissemination of the project results towards a broad target audience. Three stake¬holder events will be organized, the first will take place in Mid-October in Istanbul prior to the IFOAM Organic World Congress.

By then the project will assess and review existing knowledge on fish health and welfare, veterinary treatments, nutrition, feeding, seeds, production systems, , environmental impacts, socio-economic and aquaculture economic interactions, consumer aspects, legislations and private standards for organic aquaculture.

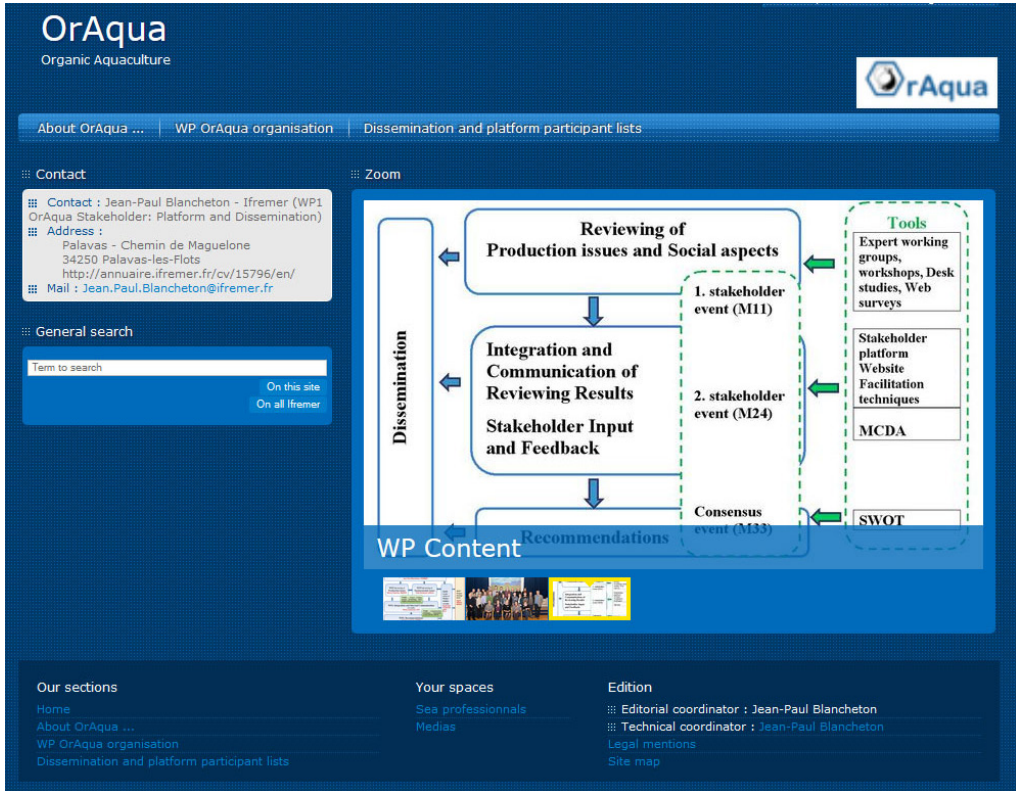
We therefore invite stakeholders to sign up for our multi stakeholder platform as soon as possible (see also separate article about WP1 and ww.oraqua.eu). We look forward to some fruitful discussions and cooperation in OrAqua to fulfill our vision of a growing organic aquaculture sector in Europe, supported by science based regulations in line with the organic principles and consumer confidence. *Ingrid Olesen, Project Coordinator, Nofima*

WP1

Follow the project at www.oraqua.eu

By Jean Paul Blancheton, Ifremer, WP1-leader

The OrAqua website was created during the first month of the project. It is now accessible at http://www.oraqua.eu/ and will be developed during the project. The initial content includes a short description of the overall vision of the project, of the consortium and the main objectives and of the structure of the project (WPs, interactions between the WPs and main tools that will be used) and a first list of the stakeholders (industry, governance, researchers, NGOs etc.) that will be informed and consulted during the project. This list will be used to identify the project multi-stakeholder platform participants, that will be gathered during the 3 main project events. Together with the website, the platform will be the main tool for the project consortium to communicate with the society in order to disseminate the information and to get feed back. This is essential to assess the acceptability of the project findings.
In parallel, a share-point was created for the project partners. At the beginning of the project, it will mainly be used to share documents and information that are necessary to carry out WP2 and WP3, which are aimed at reviewing production and socio-economic issues related to organic products and labelling, and WP4 that will integrate the scientific data and transform them into a non-academic and easily understandable information.



Review of production related issues

WP2

The aim of this work package is to collate and review the art of scientific knowledge on production issues in organic farming.

By Wout Abbink, IMARES, part of Wageningen UR, WP2

The work in WP2 will focus on a comprehensive review of the key aspects; fish feed and nutrition, health and welfare, veterinary treatments, biosecurity, production systems and management, environmental interactions and sourcing of juveniles. The work will be based on collection and review of available literature, both scientific and grey, and the elaboration of the available data, metadata and indicators, to give an overview of the biological and technical potential on best organic practices. We will focus on some key species (groups) for the European aquaculture; finfish (Atlantic salmon, rainbow trout, common carp, sea bream and sea bass), shrimp, molluscs and seaweed.

Work package 2 works in close collaboration with work package 3, that focuses on the socio-economics of organic aquaculture. In addition, work package 4 will translate the information gathered in work packages 2 and 3 into factsheets that are readily available for stakeholders.

In order to summarise and structure the different literature sources, a format is designed that includes information on the title, authors, year of publication, topic, keywords and a brief summary of the text, but also has the option to refer to the pertinent EU Organic Regulations. The literature search includes some aspects of key interest for each of the production issues. With this respect, fish feed and nutrition will focus on protein, fat, carbohydrates, additives and the sourcing of raw materials for each of the above mentioned species.

Production regarding welfare will include common issues such as density, light regime, space allocation and water quality ranges, but also includes welfare issues during transport and (pre-)slaughter treatment.

Health and veterinary treatments include an overview of vaccines, (non)allopatric medicines, anaesthetics and immunostimulants for organic farming. In addition, biosecurity will include hygiene, disinfection and good management practice.
The different types of production systems will be reviewed on types of systems already allowed for organic culture under the right conditions (such as cages), and types of systems that are not (yet) approved for organic farming (such as RAS for on-growing). Special attention will be given to emerging systems, for example IMTA.

The environmental effects of farming is an important aspect of organic aquaculture, and this work includes effects of land use, waste, nutrient use and recycling, escapees, wild fish feeding, impact on the (sea)bottom, the offset of LCA/CO_2 and energy use with respect to organic aquaculture. In addition, there is also an ethical component included in the reviews.

Review of socio-economic issues

WP3

By Pirjo Honkanen, Nofima, WP3-leader

WP3 will collect and review available information on economic, market and consumer related issues, and regulatory and institutional frameworks related to organic aquaculture products.

Consumer perceptions, sentiments and understanding of organic aquaculture will be assessed to promote consumer confidence and acceptance of organic aquaculture. Improving the understanding of the economics of organic aquaculture production and the competitive position of organic aquaculture products in EU markets is also an important objective of WP3.

Finally, WP3 will explore critical development constraints and potential improvement in the institutional systems, to provide input to regulatory bodies for an increased organic aquaculture production.

To achieve the objectives, WP3 will review reports and scientific articles related to socio-economic issues in organic seafood production. The review of existing literature will be based on results from previous and on-going projects and other scientific literature retrieved from relevant databases and available production and price data.
It is necessary to make use of literature on organic food in general related to consumer and farm economic aspects because few studies exist explicitly on organic aquaculture. Additional data will be collected to fill in the gaps in both consumer and economic findings.

In the consumer task, a representative survey will be conducted in major markets for organic aquaculture products to fill in the gaps identified in the literature review. WP3 will also perform a SWOT (Strengths, Weaknesses, Opportunities, and Threats) analysis for organic aquaculture markets. The impact of the strength of the relevant values of organic and aquaculture will be estimated, e.g. animal welfare issues, health perception, risk perception, consumer trust (certification), relative price, (category) alternatives, availability.

Quantifiable detailed data for organic fish farms may be difficult to deliver. However, based on experiences in previous studies an overview of the most important change factors (potential benefits) can be made, that result from certification and the costs that are related to certification. This will result in a model that can be used in a practical way by farms and companies to analyze the impact of certification on the cost structure of the farms.

Photo: Villy J. Larsen, The Danish Aquaculture Organization

Integration and internal communication of results

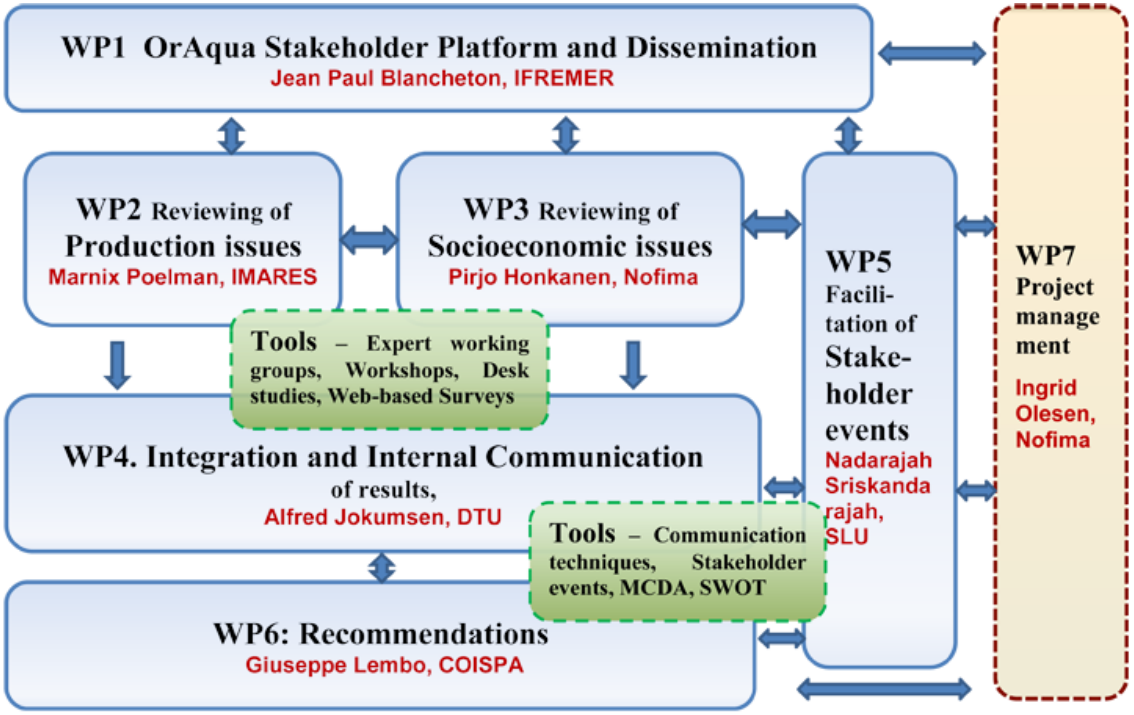
WP4

By Alfred Jokumsen, DTU Aqua, WP4-leader

The overall aim of WP 4 is to transform the information from WP 2 and WP 3 into an easily conceivable format to be communicated to the stakeholders in the European organic aquaculture sector.

Furthermore. the feedback on this information from stakeholders (cf. WP 1, WP 5 see figure) will be analyzed and incorporated accordingly and up-dated communications will be provided for the multi-stakeholder platform (WP 1).

However, during this process conflicting approaches among stakeholders are anticipated. The stakeholders may have different approaches to specific issues related to organic aquaculture and the problem is not just one of e.g. maximizing fish health and welfare but also to improve environmental interactions, feeding and nutrition, farm economics and competitiveness, and hence address the feed-back and interests of the stakeholders in the most balanced way. In that context techniques of the so-called Multi Criteria Decision Analysis (MCDA) can be an efficient tool to choose the best alternative from a set of alternatives, e.g. prioritizing between welfare/farm economics/competitiveness etc. within the framework of the organic principles and balancing stakeholder feedback and interests.



As in the "real world" situations, solutions to alternatives are reached as compromise solutions, resulting from trade-offs between various conflicting objectives of the stakeholders and decision makers, through negotiations to reach consensus. However, to achieve "optimal solutions" to multiple alternatives implies that changing one criterion may affect the overall performance with respect to at least one other resource management criterion. For balancing those conflicting interests MCDA facilitates identifying important issues (e.g. feed), breaking these into smaller parts (e.g. protein – and fat source) and finally integration of the components according to a process of ranking, weight assignment and calculating a score.

Hence, the information from the 1st stakeholder event will be used to build the methodological basis of MCDA, i.e. identification of objectives (goals), criteria (interests), different options (alternatives) and priorities for preparation of a MCDA survey. This survey will be presented for stakeholders at the 2nd stakeholder event of WP5 (cf. figure p. 7). Finally, WP4 will analyze the results from the MCDA survey and communicate the information in a readily accessible form to the multi-stakeholder platform (WP1) as well as making the results available to WP6 for a SWOT analysis.

WP5

Facilitation of stakeholder events

We believe it to be of vital importance to benefit from different stakeholders' interests, expertise and experiences and thus secure robust policy recommendations.

By Magnus Ljung, SLU, WP5

The overall aim of WP5 is to plan and facilitate three events to involve and engage relevant stakeholders within Organic Aquaculture. The knowledge exchange at the events will build a bridge between science and practice in different ways.

We will design the stakeholder events so that they help us build strong relations, a shared understanding and a communicative culture within the project. The three stakeholder events will be conducted in the following sequence and with specific purposes:

- **Event 1** for supporting the processes of reviewing (WP2 and 3) and integration (WP4) with stakeholders' interests and experiences
- **Event 2** to survey stakeholders values, attitudes and prioritize, and to initiate the decision making process generated by Multi-Criteria Decision Analysis, MCDA (WP4)
- **Event 3** for building consensus on recommendations (WP6)

Our ambition is to combine the first stakeholder event with the IFOAM Organic World Congress in Turkey in mid-October 2014. Nevertheless the planning process has started and in the next Newsletter we will be able to present a more detailed description of the events and its' design.

Recommendations

WP6

By Pino Lembo, COISPA Tecnologia & Ricerca, WP6-leader

The overall aim of this work package is to provide recommendations based on sound scientific evidences, within the framework of the organic principles, for the review of the EU rules for organic aquaculture.

Organic aquaculture aims to incorporate and extend organic production principles to the production of fish, shellfish and aquatic plants. The main difference between the organic and the conventional aquaculture is the holistic view in the organic production. The organic production considers all impacts that the production might have on the environment, the farmed animals and the society. Having this holistic view in mind, results from the WPs 2, 3 and 4 will be assessed and scrutinised in terms of relevance, measurability and applicability to the EU Regulation of organic aquaculture.

Then, provisional recommendations will be drafted, using the outcomes of a SWOT analysis concerning key aspects such as: nutrition and sustainable feeds, welfare and health including disease treatments, stocking density and source of juveniles, optimal slaughtering procedures, production systems, including recirculation systems, management procedures and environmental interactions. Finally, the provisional recommendations will be presented and discussed in a large stakeholder event, in order to reach a final consensus.

To facilitate the follow up of the process, executive dossiers will be prepared on the main technical background behind the recommendations. Such dossiers will be organized according to the standard/template used by the Expert Group for Technical Advice on Organic Production (EGTOP) to produce technical reports for the attention of the Standing Committee on Organic Farming (SCOF).

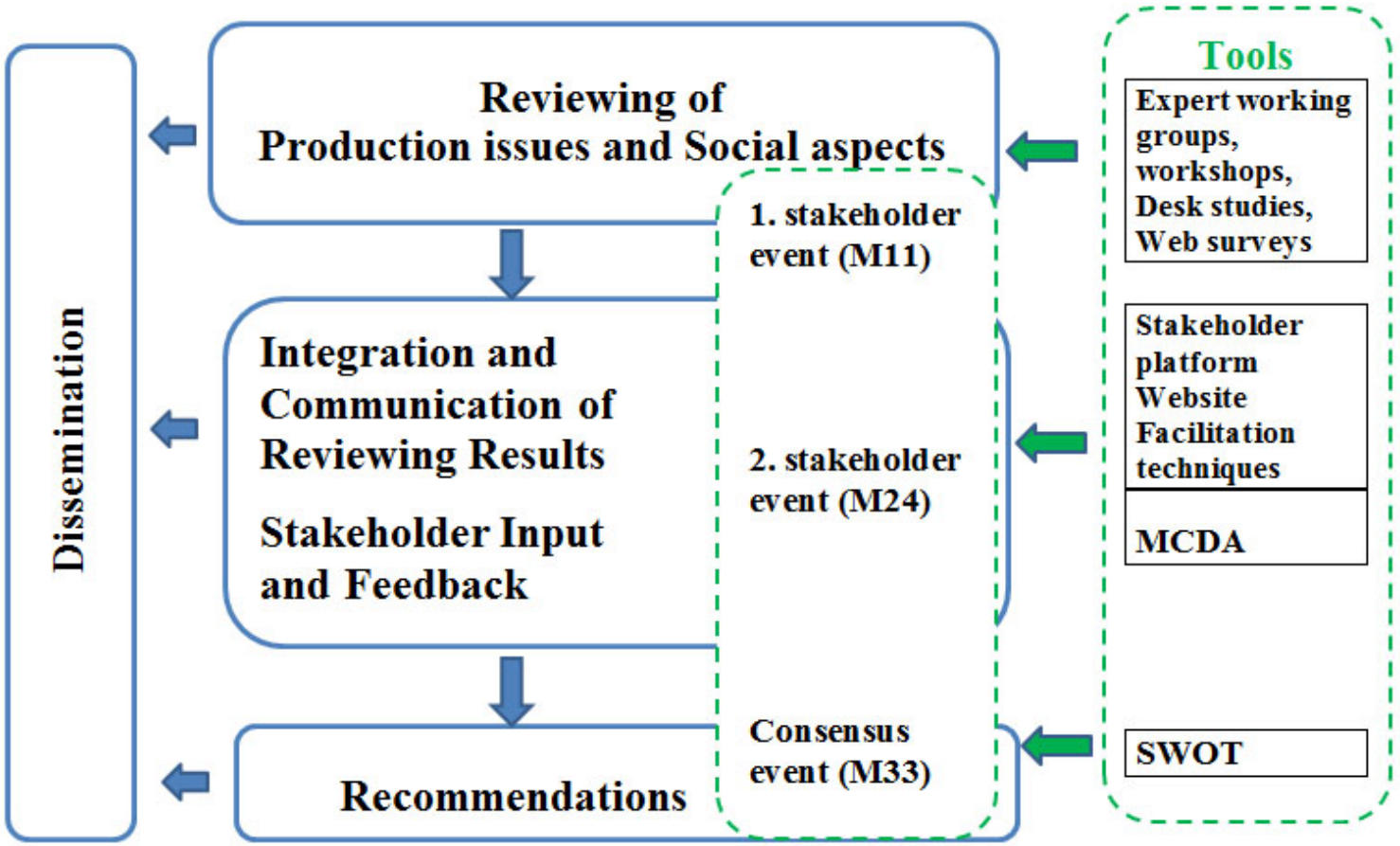
The contents of the dossiers and recommendations will constitute the basis of the Policy Implementation Plan (PIP), which is to describe the potential application of the project results within the organic aquaculture regulatory frameworks, in terms of legislation, standard harmonization and equivalency, control system, potential cost savings and economic impacts.

The PIP will assess the expected impact on the development of the sector and how the project results might be applied to a potential revision of the EU regulation of the organic aquaculture.

Providing scientific advice on the relevant regulatory framework, the project will contribute to the further economic growth of the organic aquaculture segment.

The workflow in the OrAqua project

Workflow



Partners in OrAqua

Name and Country of the OrAqua partners

1 Nofima, Norway
2 Coispa Tecnologia & Ricerca, Italy
3 Technical University of Denmark, DTU, Denmark
4 Institut Francais de Recherche pour L'Exploitation de la mer, IFREMER, France
5 University of South Bohemia in České Budějovice (USB), Czech Republic
6 Swedish University of Agricultural Sciences (SLU), Sweden
7 Stichting Dienst Landbouwkundig Onderzoek (DLO), Netherlands
8 Debio Association, Norway
9 ICEA, the Environmental and Ethical Certification Institute, Italy
10 Aarhus University, ICROFS, Denmark
11 The European Federation of National Associations responsible for professional fish farming, FEAP, France
12 Istituto Zooprofilattico delle Venezie, IZSVe, Italy
13 CULMAREX SA, Spain

The OrAqua project group

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