

European Research and Innovation for Food and Nutrition Security - Food 2030

EATiP recommendations

Food production through aquaculture is one of the major means to ensure food security at the global scale in a sustainable, responsible and competitive way. European aquaculture represents a dynamic activity in coastal and inland economies, providing safe and healthy food to the consumer and supporting thriving coastal and rural communities.

Aquaculture has a clear function in relation to meeting the demands for Food and Nutrition Security as set out in the Food 2030 report, at both the European and global levels. It ensures the supply of nutritious food as part of a healthy diet, with a low product environmental and climatic footprint, and a high potential for innovation and technological development. Indeed, its expansion during the last 40 years has been largely due to effective integration of research and innovation within the professional value-chain. The efficient production of aquatic animals and plants is also to be regarded as a major contribution towards the achievement of several of the United Nations' Sustainable Development Goals (notably SDGs 2, 3, 12, 13, 14 and 15).

The EATiP Strategic Research and Innovation Agenda (SRIA) of 2012¹ identified four major challenges to growth in the aquaculture sector:

1. Competition in the marketplace
2. Access to and competition for space
3. Improving resource use
4. Governance of the sector

In line with its review of the SRIA², the EATiP strongly encourages research, development and innovation measures related to social license, precision farming and resource efficiency. In addition, it calls for efficient actions to identify critical knowledge gaps in aquaculture and to stimulate the uptake of promising research results, across different regions in Europe. We believe that the newly established working group of regional / national EATiP Mirror Platforms may provide an appropriate mobilising instrument to actively support actions leading towards the achievement of the Food2030 policy.

1. Social license

National laws and regulations determine the opportunities for growth in the European aquaculture sector. These account not only for the characteristics and dynamics of the ecosystem in which aquaculture takes place, but also for potential conflicts with other users of the space and resources and thus the public perception of the sector as a whole.

Social research and innovation, combined with improved communication by and within the aquaculture sector is therefore a clear priority. Resolving issues concerning the public perceptions of different aquaculture activities needs to be accompanied by addressing better

¹ EATiP. The Future of European Aquaculture. 2012.

² EATiP. A Review of the Strategic Research and Innovation Agenda. 2017.

cooperation between the profession, researchers and public administrators, and between experts across different disciplines. Trans-disciplinary research, innovation and investment adopting a food systems and transformative approach, linking all stakeholders in the food chain, is strongly supported by EATiP.

The adoption of European and international certification standards for foods produced by aquaculture, such as the Aquaculture Stewardship Council³ and Global Gap⁴, including the European Feed Product Environment Footprint Category Rules⁵, also contribute to assuring public confidence in its processes and products in particular and the sector as a whole

2. High performance farming in aquaculture

The Scientific Opinion on “Food from the Oceans”⁶ points towards mariculture as a largely underexploited food resource activity. The availability of coastal space for seafood farming is a critical factor if European aquaculture is to grow and develop. Open sea aquaculture has a high potential, but demands substantial investments and long-term planning. New technologies and management systems, where automation and real-time monitoring are key factors, can assist in obtaining higher performance aquaculture. This evolution calls for the development of integrated systems that can combine heterogeneous data sources of high relevance to aquaculture; these will cover aspects such as welfare, environmental impact, climate change as well as the monitoring of production-related parameters.

Selective breeding and new genetic tools, nutrition and disease treatment/management still have a clear potential to improve the performance of the livestock in both hatcheries and grow-out farms.

3. Circularity and resource efficiency

With the increased international trade and availability of aquaculture products, consumers have a higher interest in sustainably-produced food. Further work needs to be done on establishing an international basis for environmental footprint assessment, and on the role of aquaculture in reaching the UN SDGs.

Limitations on specific resource supplies for compound feeds, combined with rising awareness of the footprints of different ingredients, calls for the search for alternative materials for compound feed manufacture. Much research has already been done on this topic, but it remains a core issue for the sustainability of the sector. The use of micro-algae, seaweeds and insects provides evident opportunities, as well as the investigation of nutritious bacteria and fungi grown on waste materials from aquaculture, agriculture and human consumption.

4. Identify gaps and disseminate aquaculture research results

The proposal to establish a Blue Bioeconomy Forum bringing together a partnership of industry, public authorities, academia, and finance in order to support deployment of best practice, is fully supported by EATiP. This should lead to a consensus on the role of aquaculture in European society as an efficient way to provide healthy food, thereby strengthening the acquisition of the social licence to operate.

³ www.asc-aqua.org

⁴ www.globalgap.org

⁵ <http://www.fefac.eu/news.aspx?CategoryID=2063&EntryID=25173>

⁶ European Commission Scientific Advice Mechanism. Scientific Opinion No. 3/2017 Food from the Oceans. 2017



All European RTD projects are evaluated for impact, specifically on the target actions and objectives of each project. Nonetheless, dissemination actions and/or technology transfer can only be effective once the research is finished, which is often at the end of the project. The aquaculture profession remains concerned that this position needs to be improved, particularly since project consortia are dissolved at the end of projects. Attention should be given as how to best communicate results and assuring that opportunities for technology transfer are not lost due to this situation. Longer term coordinated actions that promote and measure the effectiveness of dissemination and research uptake are needed.

*By EATiP
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