



Integrated Aquaculture: an eco-innovative solution to foster sustainability in the Atlantic Area

Clive Dove, María del Mar Agraso
 Fundación Centro Tecnológico Acuicultura de Andalucía -CTAQUA
 MUELLE COMERCIAL S/N - "EDIFICIO CTAQUA"
 11500 El Puerto de Santa María (Cádiz). SPAIN

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SUMMARY

Despite being a key driver of the maritime economy in the European Atlantic Area, Atlantic aquaculture faces significant challenges: environmental management at farming sites, the European north-south divide, regulatory hurdles, long licensing processes, low levels of consumer knowledge and acceptance, competition for space with other maritime activities, etc. INTEGRATE contributes to overcoming these challenges by facilitating the transition towards commercial Atlantic Integrated Multi-Trophic Aquaculture (IMTA).

IMTA systems are a circular economy paradigm. They contribute to making Atlantic aquaculture more sustainable and competitive, thus unlocking green growth within the European aquaculture sector.

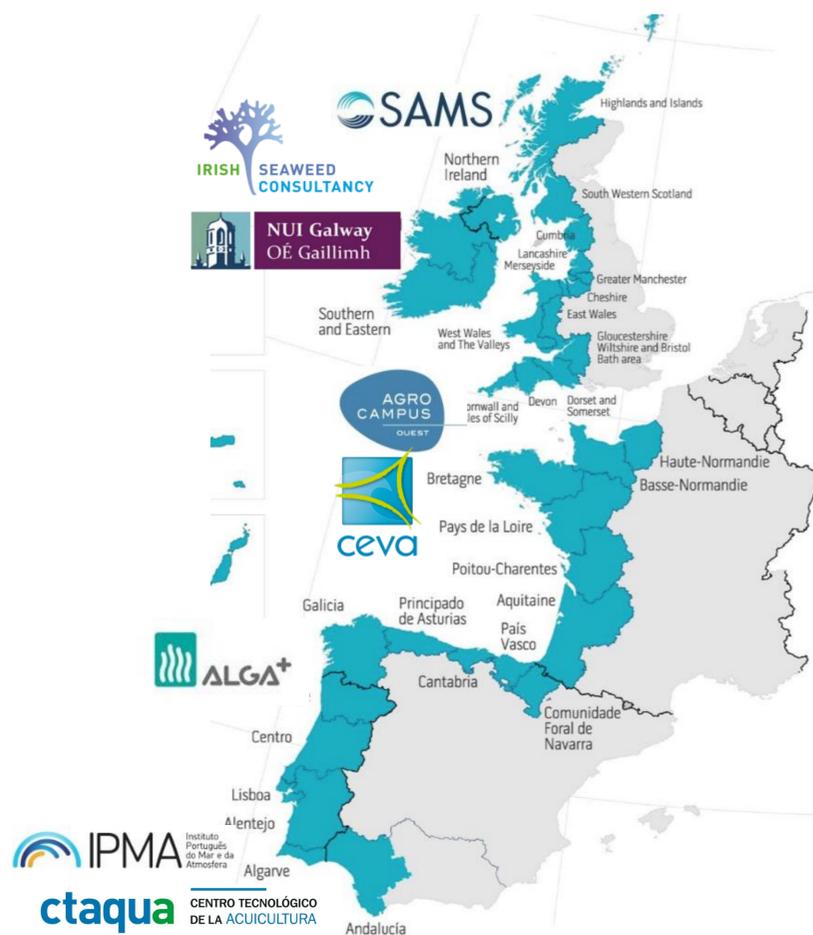
However, despite IMTA being encouraged by European Union (EU) policies such as the Blue Growth Strategy, the Atlantic Action Plan and Smart Specialisation Strategies (RIS3), there still are socio-economic, administrative and legal bottlenecks hampering its development to its full potential. To overcome these, INTEGRATE supports meaningful cooperation between academia, the corporate sector and relevant authorities.

The INTEGRATE approach:

- Strengthens IMTA collaborative networks.
- Provides a level playing field to capitalise available Scientific and technical knowledge.
- Translates the innovative solutions provided by IMTA into technical, legal and administrative reality.
- Delivers best practice to maximise resource efficiency at Atlantic aquaculture farming sites.

PARTNERSHIP

The INTEGRATE partnership consists of 8 core partners and 11 associated partners from the five Atlantic Area members states, led by the Spanish aquaculture research organisation Fundación Centro Tecnológico Acuicultura de Andalucía -CTAQUA www.ctaqua.es



PROJECT ACTIONS

Support of meaningful cooperation between academia, the corporate sector and relevant authorities through online discussion groups, thematic workshops, expert roundtables and open access to the project's pilot IMTA facilities:

- Pilot 1: Testing new IMTA technologies attached to Atlantic cage farming (value added organic and inorganic extractive components, including the development of IMTA's benthic component).
- Pilot 2: Near-shore eco-friendly IMTA developments attached to Atlantic oyster farming (Porphyra-oyster associations).
- Pilot 3: Development of an IMTA eco-friendly standard model for Atlantic land-based semi-extensive aquaculture.

Assessment of national regulatory frameworks governing the development of commercial IMTA in the Atlantic Area.

Ecopath modelling, life cycle assessment and Emergy accounting of Atlantic IMTA pilots.

Direct consultation with aquaculture producers and key stakeholders to identify specific regional levers and hurdles in order to define the INTEGRATE strategy for the development of commercial Atlantic IMTA.

A knowledge compilation of IMTA in the Atlantic Area will be made available in the shape of best practice guidelines

OBJECTIVES

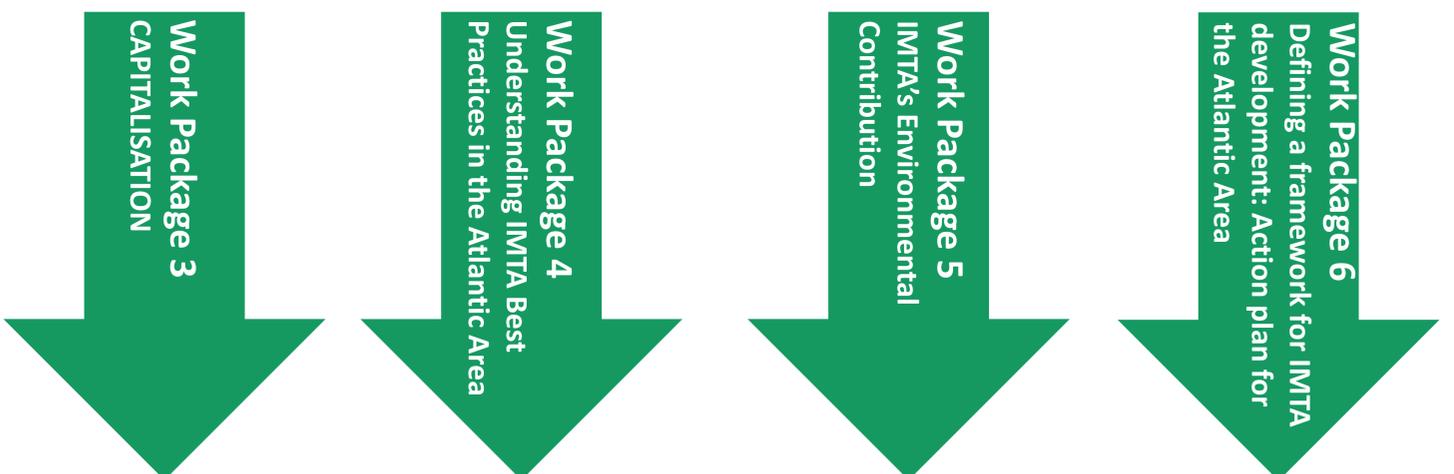
1. To strengthen collaborative networking around eco-efficient aquaculture techniques
2. To communicate the principles and benefits of IMTA (eco-innovation and eco-efficiency) and raise awareness of IMTA's holistic approach
3. To achieve market consolidation of EU sustainable seafood
4. To fulfil Atlantic Area & EU regional goals as the industry transitions to resource-efficient technologies: promotion of green and blue growth in aquaculture

WORK PACKAGES

INTEGRATE's work plan is structured around 6 Work Packages (WPs), ranging from project management (WP 1) and communication (WP 2) to the capitalisation of existing and new knowledge of IMTA (WP 3), the definition of Atlantic IMTA best practices (WP 4), environmental performance of Atlantic IMTA systems (WP 5) and the definition of a mid and long-term Atlantic IMTA strategy (WP 6).

Work Package 1 Project management

Work Package 2 Project communication



Objective: To deliver the INTEGRATE legacy by transferring IMTA best practices to stakeholders from all regions, previously developed and identified by the partners during the project.

Objective: To identify the knowns and unknowns of IMTA and its best practices as it stands today and to develop an appropriate path for its continued development in the Atlantic Area.

Objective: To assess IMTA's contribution to reducing the environmental impacts attached to aquaculture operations in view of supporting a paradigm shift towards a circular economy.

Objective: To identify the hindrances to the development of IMTA in the Atlantic Area and deliver an agenda & strategy for change-makers.