

Bringing IT to Aquaculture!

IRELAND: COASTAL PILOT IMTA SITE

Ireland's Marine Institute operates Lehanagh Pool, a coastal marine research site in Bertraghboy Bay in Connemara. It is a 23 hectare site and is Ireland's only licensed multi-species marine research site. The site seeks to progress the sustainable development of aquaculture conducting research into integrated multi-trophic aquaculture (IMTA) production. The site has been developed specifically for multi-species production, including macroalgae, molluscs and finfish with intensive environmental monitoring and site modelling capabilities. The research performed on the site aims to further develop the methods, technologies and concept of IMTA.

OUTCOMES

The Impaqt Intelligent Management System (IMS) reports real-time stock information, environment and fish welfare status, provides warning updates, and advises on operational actions.

 **Informs on stock welfare conditions and growth based on analysis of all data gathered.**

 **Provides real-time operational information on the ecological footprint to help minimise environmental impacts.**

 **Analyses of stock and makes recommendations on the optimal harvest times.**

 **Informs on IMTA processes and raises consumer knowledge on IMTA food production.**



Site:
Lehanagh Pool Marine Research Site

Location:
Connemara, Co. Galway, Ireland
Activity:
Coastal marine aquaculture
Operated by:
Marine Institute

PILOT SETUP

The IMTA site facilitates the production of seaweed (*Alaria* sp. and *Ulva* sp.) - growing on longlines on site at different times of the year - alongside scallops (*Pecten maximus*) - growing in lantern nets - which extract by filtration, and Atlantic salmon (*Salmo salar*) as the fed species - growing in traditional fish pens. The IMPAQT project is conducting intensive environmental and stock monitoring, measuring oxygen, salinity, temperature, pH, turbidity, chlorophyll levels, light penetration, and water flow, along with numerous fish health and welfare indicators. The IMTA set-up consists of:



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