



# Smart Ecosystems for Seaweed and Oysters

Integrating cultivation of complementary species and building in uses for by-products





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## Smart Ecosystems for Seaweed and Oysters

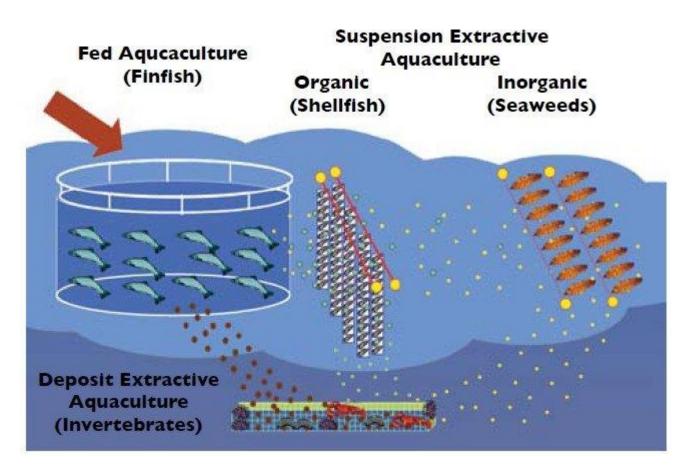


- Emerging aquaculture sector in Dorset
- Primary focus likely to be:
  - Shellfish
  - Seaweed
- Opportunity for Integrated Multi-trophic Aquaculture farm
- Local Pacific oyster farm (Crassostrea gigas) already very successful



#### What is IMTA?





Improving Urban Resilience in Coastal Eco-Cities: System Integration - Scientific Figure on ResearchGate. Available from: https://www.researchgate.net/Integrated-Multi-Trophic-Aquaculture-Chopin-2010\_fig22\_260930327 [accessed 15 Nov, 2018]



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### Portland Port, Dorset, UK







### How as FLAG helped?

- Facilitated workshops for the sector
- Introduced Pacific oyster farmer to seaweed farmer
- FLAG Funded aquaculture industry delegation to Scottish Seaweed Alliance conference
  - Already an established sector in Scotland
  - Information and knowledge sharing key
  - Industry representatives







#### The Bio-fouling issue





- Non target species out competing farmed species
- Usually, non target species is removed and discarded
- Is there a use for this bio-fouling?

A New Resource to Aid in the Identification and Management of Aquaculture Production Hazards - Scientific Figure on ResearchGate. Available from: https://www.researchgate.net/b-Seaweed-long-line-fouled-with-non-target-seaweeds-and-other-epiphytes-sarah-redmond\_fig4\_296089219 [accessed 15 Nov, 2018]



#### Uses for bio-fouling

- High end cosmetics
- Organic concentrated fertilizer

Food additives











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