

It is estimated that by 2030, 62% of all seafood produced for human consumption will come from aquaculture. Today, it is closer to 50%. Aquaculture has become more integrated into the global food system, with rapid growth in production and major transformations in feed ingredients, production technologies, farm management, and value chains. This Aquaculture Common Issues **Group** looked at how investment is helping to fund innovation in UK aquaculture.

Seafood Innovation Fund (SIF) funding UK aquaculture. Kerry l'Anson, Cefas.

The Seafood Innovation Fund (SIF) was launched in July 2019 by Defra. It now sits under the UK Seafood Fund. It is administered by Cefas (but not delivered by Cefas scientists), it covers the whole seafood supply chain and is UK wide.

- SIF has funded 42 Aguaculture projects to date with a total value of £5.15M. Twenty-three were short "feasibility" projects lasting 3 - 6 months. The remainder are longer term, R&D projects lasting 12 – 24 months. The projects have covered areas including aquaculture feed, fish health, reducing / mitigating environmental impacts, sustainability, improving processes/cages.
- Call 4. There will be an "Expression of Interest" (EOI) for Call 4 opening later in July with Call 4 opening in mid-September. There will be online briefings in September/October. The Call closes in early December. The assessment process will complete during February 2023. Successful applicants will be notified during March 2023. Projects will start in April 2023.

Discussion

- Q. Will Call 4 be the final SIF call?
 - A. The Call will open in mid- September and will close in early December. Each project will be around 18 months.
- Q. Is it correct that there is no maximum cap in Call 4?
 - **A.** That is correct, but you really need to demonstrate value for money.
- Q. The original proposals called for a feasibility study, which was meant to push those studies into the R&D phase, leading to a full project. Will these be capped? **A.** The follow-on projects from Call 3 will not be capped either.
- Q. What TRL level are the R&D projects? Presumably higher than the feasibility study TRL? A. There is no feasibility element to Call 4. The projects can be anywhere within that range.

Impact of Scotland's Sustainable Aquaculture Innovation Centre's activities. Heather Jones, SAIC.

- SAIC has been running for eight years. The focus is on aquaculture pre-slaughter.
- Areas of expertise. 1. Funding projects each project must include an industry partner and an academic partner. SAIC only funds the academic component. 2. Support under-graduates and post-graduates, and run training programmes. 3. Facilitate knowledge-exchange.
- SAIC aims to improve productivity and efficiency of aquaculture through a very clear focus on three key area: 1. Fish health and welfare. 2. Unlocking additional capacity to improve efficiency and productivity. 3. Shellfish and other non-finfish species. High levels are participation is encouraged with multiple partners. Three case studies were presented.

Results from an independent economic impact report by Frontline Consultants and economist Steve Westbrook, based on 60 SAIC-funded projects, October 2021.

£50m

600

£52.7m

£18.6m

x4.67

INCREASED PRODUCTIVITY

SAIC projects will contribute to an increase in aquaculture turnover of £50m pe year by 2026, of which £30m is directly attributable to SAIC.

SAIC projects are forecast to create 600 new FTE jobs by 2026.

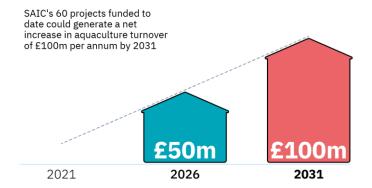
The total value of the 60 projects assessed was £52.7m. Of this, 60% (£31.4m) was contributed directly by industry partners.

of public funding into more than double that amount by bringing a further £9.8m from other UK/EU fundin sources into Scottis research and innovation projects.

For every £1 of SAIC funding given to research projects, a further £4.67 is leveraged from industry and other funding sources.

SAIC activities also contribute to increased productivity, improved fish health and welfare. spin-out businesses, new markets, and new recruits into Scottish aquaculture.





Discussion

- Q. Do SAIC fund seaweed or Integrated Multi Trophic Aquaculture (IMTA) projects?
 A. Seaweed is included, and we do have some IMTA projects. SAIC has encouraged projects in this area. There is a requirement for some industry co-investment which has proved to be a barrier, but SAIC can make those introductions.
- Q. Does SAIC play any role in matching industry and academic partners for proposed projects that may be suitable for SAIC funding? Or should partnerships be established prior to approaching SAIC?
 - **A.** SAIC does not require existing relationships to be in place and is happy to provide those introductions and play that role.
- Q. With the change of name and the new focus on sustainable aquaculture how does this fit in, and what is the vision for UK aquaculture?
 - **A.** When SAIC started out it was predominantly Scottish. Over time the membership has grown to 273 (24% are not in Scottish and 19% are outside UK so just under half of members are non-Scottish). Because SAIC wanted to fund the best possible innovation it needed to expand its reach. Marine Scotland does provide funding and there are certain rules attached to that around only funding the academic component. That funding is there for the next two years so SAIC is now looking beyond that. Ultimately the other partners need to decide on future direction.
- Q. Do you take more of an active role within the business dynamics of the members? Is there a charging structure for this support?
 - **A.** There is no charging model to take money from businesses for advice given. There have been some projects where SAIC has been funded by Marine Scotland to deliver certain services for a fee.

For further information

- info@sustainableaquaculture.com
- https://www.saic.com/

New project to receive funding: Integrating sustainable shrimp production in a changing agricultural landscape. Rod Wilson and Robert Ellis, University of Exeter.

- The full title of the project is: Transformational blueprint for a blue economy on UK terrestrial farms - integrating sustainable shrimp production in a changing agricultural landscape. The project is due to start in September 2022. The aim is to assess the economic viability of terrestrial shrimp (King Prawn) production in the UK. The are 11 industry partners and 10 academic partners involved.
- Providing a source of heat is paramount to produce King Prawns in the UK. Co-locating shrimp farms with anaerobic digestion (AD) plants in the UK will maximise waste heat energy and boost the farm-based renewable energy sector (UK emissions targets). This is a great



example of collaborative working and learning. This is about generic information sharing – pre-competitive collaboration.

Discussion

- Q. This covers a new UK post larvae hatchery. Will this create an opportunity to provide larvae for a European market?
 - **A.** Yes this could be an option. A business case will look at the feasibility and economic options. This will be a wide-ranging scoping exercise.
- Q. This is a proof-of-concept exercise covering sharing space with terrestrial farming. Would the two different functions be run by separate businesses?
 - **A.** Terrestrial farmers won't know much about prawn farming, but they could rent the space out. We need to figure out the right routes and mechanism to make this happen. There needs to be AD nearby. These are option to use cheap sources of heat. Different partners could be involved. IMTA could potentially be employed on each site and could produce other products.

Further information

• 4th International Symposium on Advances in Marine Mussel Research (AMMR). 21 to 23 November 2022. Saunton Sands Hotel, North Devon. AMMR2022 offers a two and a half day meeting that will celebrate the latest in marine mussel (Mytilus sp.) research.