



# UK SEAFOOD INNOVATION FUND

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So far the £ multi million fund has supported 94 cutting edge projects in the UK ...



### **SUSTAINABILITY**

To reduce the environmental impact of seafood.



### **INNOVATION**

Technologies to bring the industry into the 21st century.



### **PRODUCTIVITY**

Ensuring seafood security for years to come.



### **COLLABORATION**

Creating new partnerships across the seafood & tech sectors



### **MANAGEMENT**

Strengthening the evidence base for sustainable management.



### **RISK REDUCTION**

To improve future certainty for seafood business.

**But what does  
INNOVATION mean to SIF ?**



**Above all, SIF funds innovations which  
provide novel solutions -**

**to achieve something  
that has never been done before.**

**Innovations can be technological...**

**... expanding beyond our current capabilities to  
increase productivity.**





**Innovations can be social...**

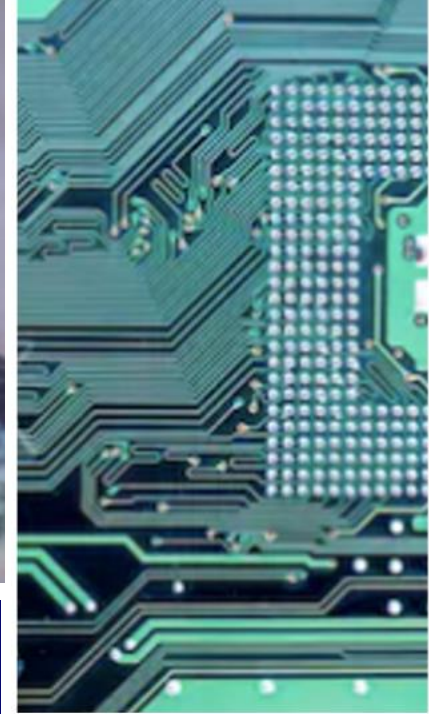
...investigating consumer habits  
and market gaps.



**Innovations can focus on fish welfare...**

...reducing stress and improving disease resistance.





**LAUNCHED IN JULY 2019 BY DEFRA**

**NOW SITS UNDER THE UK SEAFOOD FUND**

**ADMINISTERED BY CEFAS – NOT DELIVERED BY CEFAS  
SCIENTISTS**

**COVERS WHOLE SEAFOOD SUPPLY CHAIN AND IS UK WIDE**

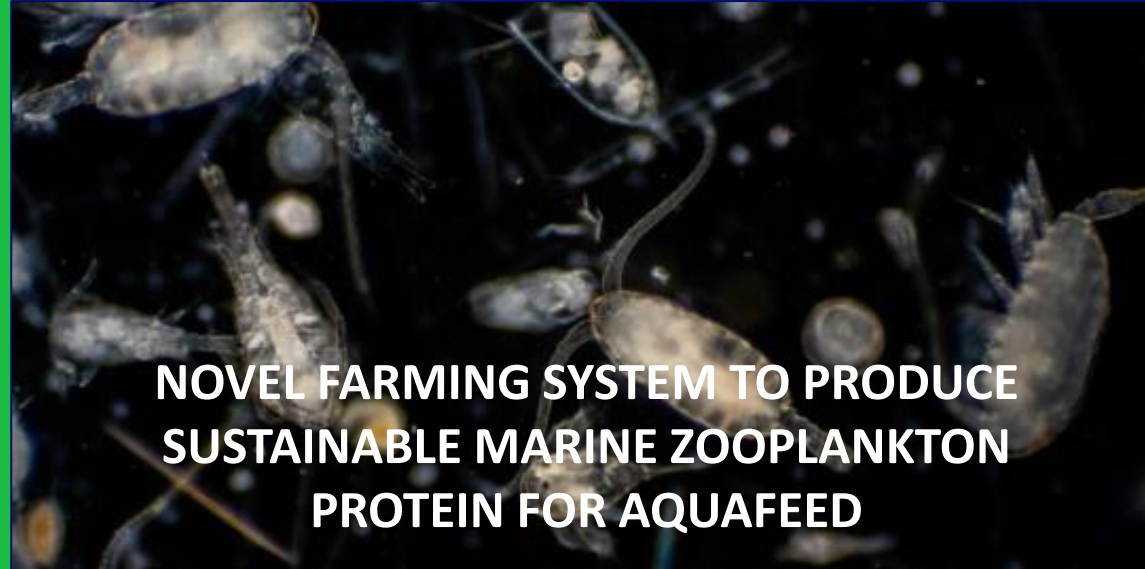


# Aquaculture projects funded by SIF

- SIF has funded 42 Aquaculture 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







SOME ORGANISATIONS DELIVERING SIF  
PROJECTS ARE FROM OUTSIDE OF THE  
SEAFOOD SECTOR





# Unlocking the value of data in aquaculture (RD050)

## AIM:

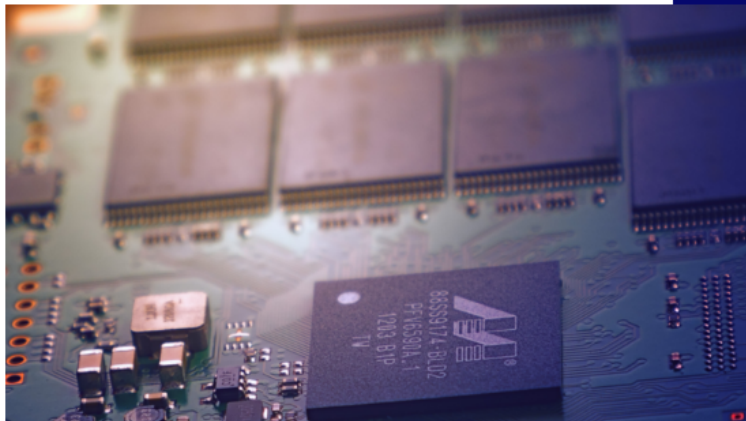
The project will connect the world's fish farms via satellites, which will turn raw data into valuable and actionable information that farms worldwide can access. The data will enable farms to make effective decisions to improve stock survival rates, predictability, fish wellbeing, public perception and more.

## FUNDING AMOUNT:

£250,000

## DURATION OF PROJECT:

TBC



## PROJECT SUMMARY:

This project was originally funded as a feasibility study ( ) and has now been awarded funding to continue the project into the R&D phase

R3 IoT is currently on a mission to connect the world's fish farms using satellites. The use of cutting-edge satellite technologies enables the secure transmission of continuous sensor data from farms located anywhere on Earth, back to private clouds where companies can access all the data collected from farms.

However, providing live data isn't enough. This project will unlock the true potential of the connected fish farm by creating the tools necessary to turn large quantities of raw data into valuable and actionable information. R3 IoT will arm fish farms with the necessary tools to improve stock survival rates, predictability, fish wellbeing, and public perception by generating insights tailored for companies in the aquaculture sector. Through its product R3 IoT aims to facilitate business resilience to rapid changes happening throughout the industry, such as arrival of deep-water farms, centralisation of operations, and potential of self-regulation. Farms will no longer be remote, isolated operations left to the whims of unpredictable events – companies will have constant, continuous links into the critical parts of their business.

This platform will provide the means to securely store, view, compare, process, interpret and export valuable information created from data collected across all connected fish farms, no matter their location. By working closely with the industry, R3 IoT will ensure the platform is uniquely capable of solving the industry's biggest problems through the innovative use of digitisation and technology.

**STATUS: ONGOING**

# Novel farming system to produce sustainable marine zooplankton protein for aquafeed (FS114)

## AIM:

This project seeks to increase the availability of marine ingredients for the aquafeed industry by domesticating and sustainably farming marine zooplankton on a large scale.

## FUNDING AMOUNT:

£49,713

## DURATION OF PROJECT:

5 Months



## PROJECT SUMMARY:

Aquaculture is running out of the harvested marine ingredients included in aquafeeds fed to marine fishes and shrimp feed. Wild harvest, or fisheries, has reached its maximum sustainable yield over 30 years ago – and has been flat since then – while the volume of aquafeed has increased five fold in the last 20 years. This has forced aquafeed manufacturers to increase inclusion of widely available plant ingredients, and as a result demonstrates decreased aquafeed performance of marine carnivorous fishes and shrimps.

Aquanzo's mission is to increase the availability of marine ingredients for the aquafeed industry, rather than develop another alternative, by domesticating and sustainably farming marine zooplankton on a large scale. These small marine crustaceans, similar to krill, are the most nutritious ingredient available for marine fish and shrimp in the wild. Aquanzo is developing technologies enabling scalable and sustainable farming of marine zooplankton, on land, using agricultural byproducts, which will enable marine aquaculture to improve productivity of plant-based diets as well as support its long-term sustainable development.

Creating a new vertical in the "novel ingredients for aquafeed" sector – along insect, single cell, and algae sectors – and developing industry-wide consortium will assert the UK as an innovation hub for aquaculture technologies and environmental solutions to climate change and ocean conservation.

**STATUS: ONGOING**



# Tools for improving the welfare of lumpfish (RD103)

## AIM:

This project focuses on developing four complementary tools to assess the welfare of lumpfish. By improving lumpfish welfare, their ability to delouse salmon will improve and the UK lumpfish farming industry will be more sustainable.

## FUNDING AMOUNT:

£248,153

## DURATION OF PROJECT:

TBC



## PROJECT SUMMARY:

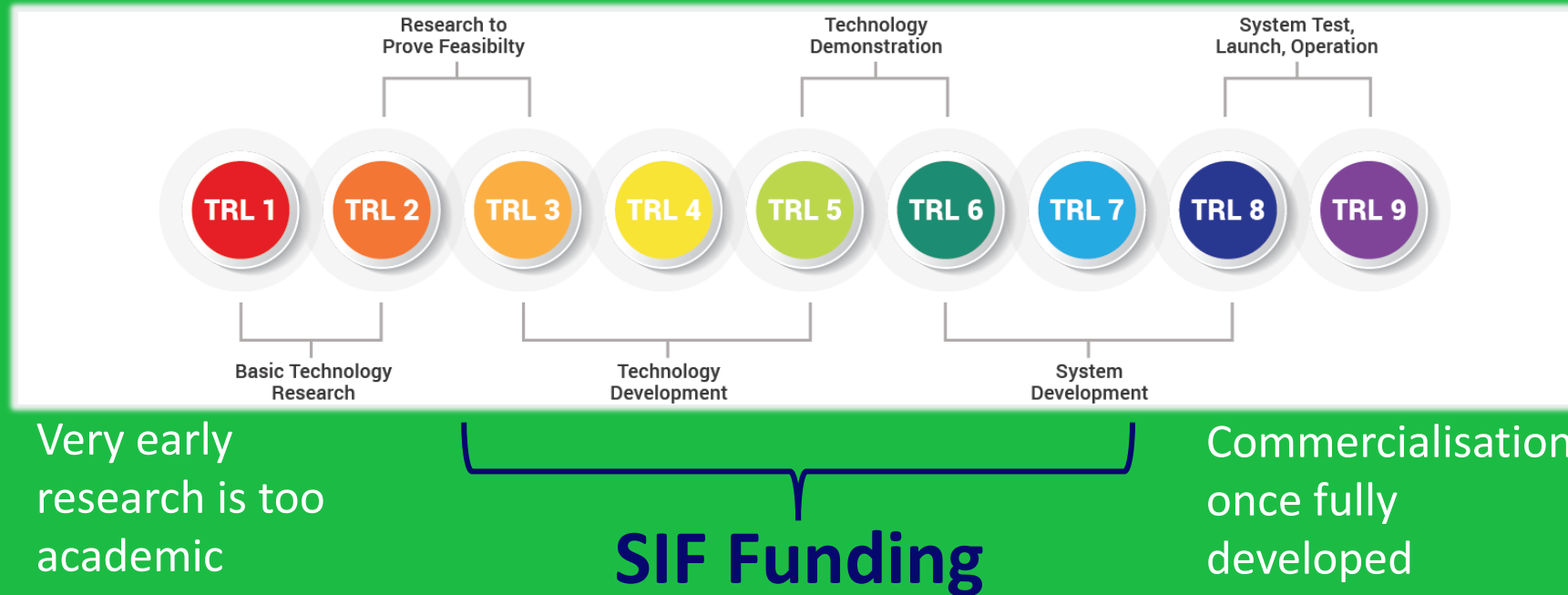
Lumpfish (*Cyclopterus lumpus* L.) are widely used for controlling sea lice in salmon farming, but their welfare is often challenged by poor husbandry, stress, and disease outbreaks, which compromise their ability to delouse salmon and causes public concern about their use in aquaculture. It is hence important to be able to monitor the welfare of lumpfish consistently and accurately so that early remedial actions can be taken before welfare is severely compromised. This project will develop four complementary welfare tools: (1) a diagnostic chart for the rapid visual assessment of lumpfish welfare based on five operational welfare indicators, (2) an online BMI calculator for the detection of underweight fish, (3) a grader to exclude lumpfish with deformed suckers from production, and (4) an e-training platform to show fish farmers how to manage lumpfish welfare. These tools will help monitor and improve the welfare of lumpfish, reduce stress-related mortalities, and help make the incipient lumpfish farming industry in the UK more sustainable.

**STATUS: ONGOING**

## PROJECT LEAD


Swansea University, Centre for Sustainable Aquaculture Research (CSAR)

# SIF technology readiness levels: TRL 3-7




- SIF is intended to fund high risk projects attempting to do something completely new, highly competitive, 100% funded – no matched required
- 18 month R&D (uncapped) projects
- Product/service should then be ready for commercialisation stage





## Call 4 will be opening in September

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- There will be an “Expression of Interest” (EOI) for Call 4 opening later in July
  - EOIs are NOT mandatory
  - Call 4 will open in mid September
  - You will need to register on the Atamis Portal
  - Download the application documents
  - There will be online briefings in September / October
  - The call closes in early December and assessment commences
  - The assessment process will complete during February 2023
  - Successful applicants will be notified during March 2023
  - Projects will start in April 2023

**WE ARE PLANNING TO LAUNCH AN  
OPEN CALL 4 LATER THIS YEAR.**

**More details to follow soon.**

Find out more at  
[www.seafoodinnovation.fund](http://www.seafoodinnovation.fund)



**@seafoodfund**