

ARCH-UK



AQUACULTURE RESEARCH
COLLABORATIVE HUB UK



@Aquaculture_hub



www.aquaculturehub-uk.com

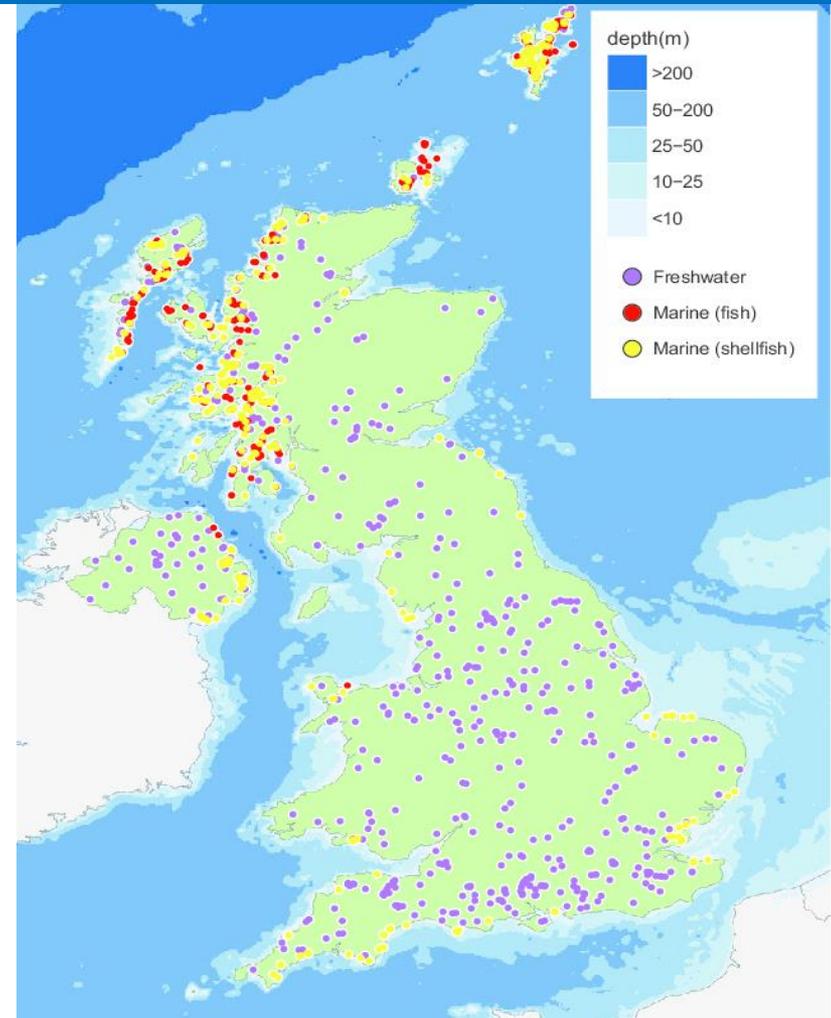
NERC SCIENCE OF THE
ENVIRONMENT



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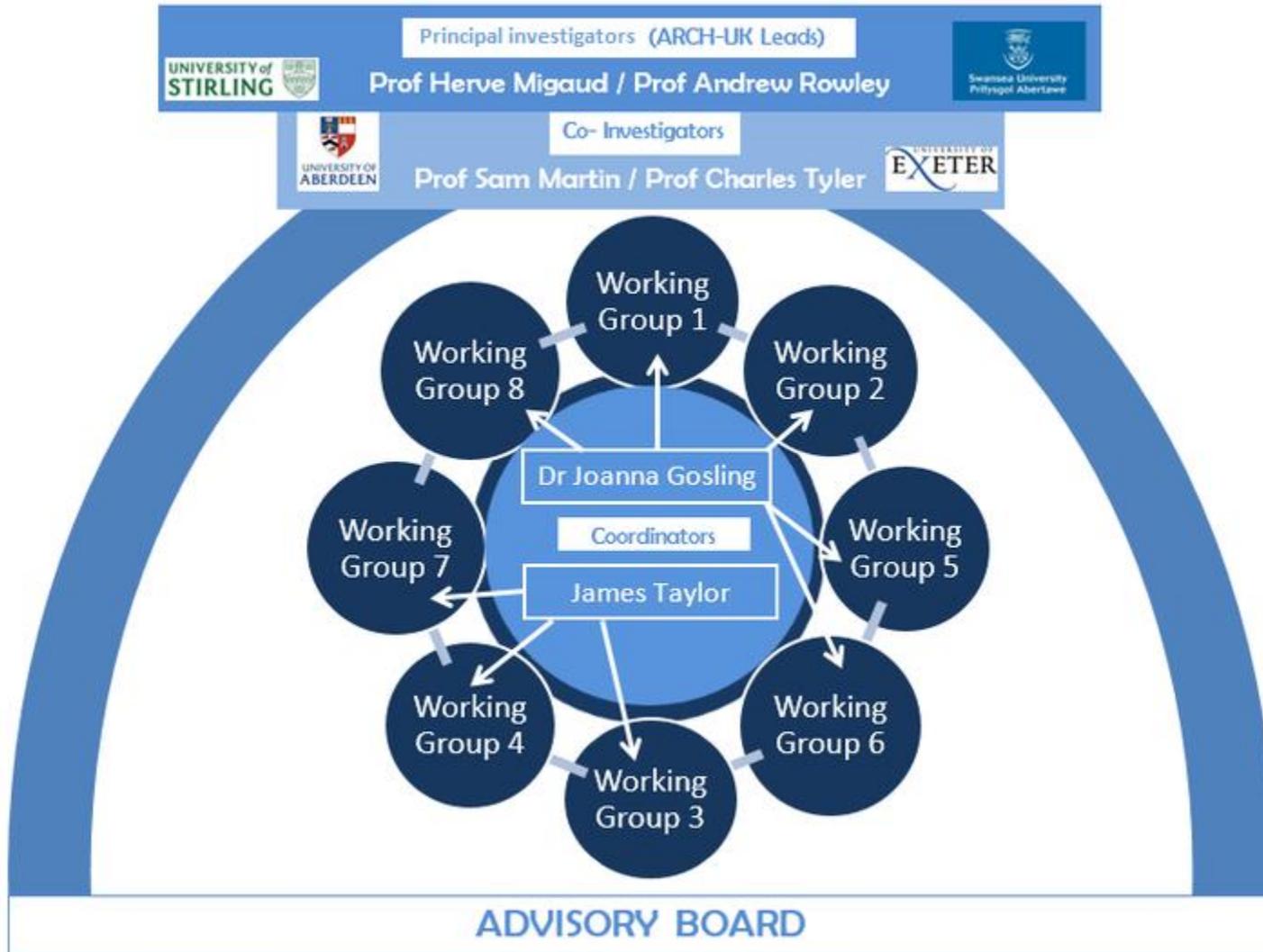
What is ARCH-UK and how is it different?

- 1: **Academia-led** aquaculture network
- 2: Represents the **whole of the UK** working at a national level
- 3: Direct contact with **research councils** who are interested to know where funding should be placed
- 4: Focusses on **fundamental and basic research issues** that are preventing the sustainable development of UK aquaculture.



Location of aquaculture sites in the UK. Location and farm-type data from information compiled in the UK Multiannual plan for the development of sustainable aquaculture (Morgan 2014).

The structure of ARCH-UK



The working groups

ARCH-UK WORKING GROUPS (WG)



WORKING GROUP 1



WORKING GROUP 2



WORKING GROUP 3



WORKING GROUP 4



WORKING GROUP 5



WORKING GROUP 6



WORKING GROUP 7



WORKING GROUP 8

AIMS AND OBJECTIVES

AIMS

- **Develop a UK aquaculture community** academia, industry and policy.
- **Increase UK capacity for innovative aquaculture and research** to address key knowledge and skills gaps identified in the [ARCH-UK Research Priority Reports](#)
- Develop an ECR community: **opportunities for training and career development**
- Create mechanisms for **translation of fundamental science** and innovative technologies through existing aquaculture organisations to synergise efforts
- Influence of the UK aquaculture industry

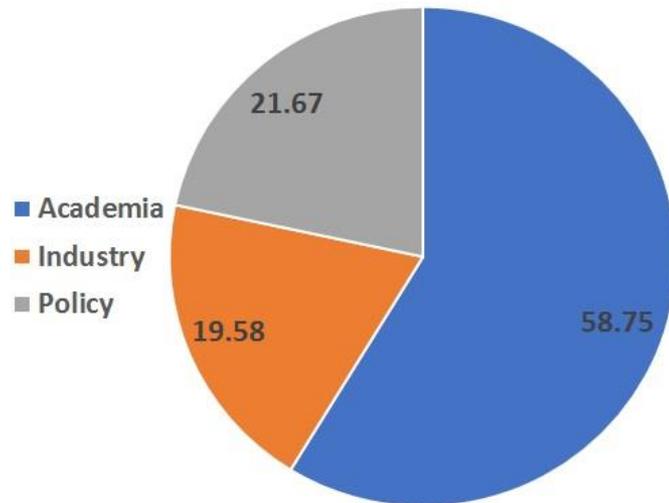
HOW WILL THIS BE ACHIEVED?

- Networking events
- Consortium building events
- Targeted Workshops
- Create platforms for KE
- Create mechanisms for translation of fundamental science and new technology to industry
- Work with existing aquaculture organisations to synergise efforts
- Organisation and management through the ARCH-UK Hub

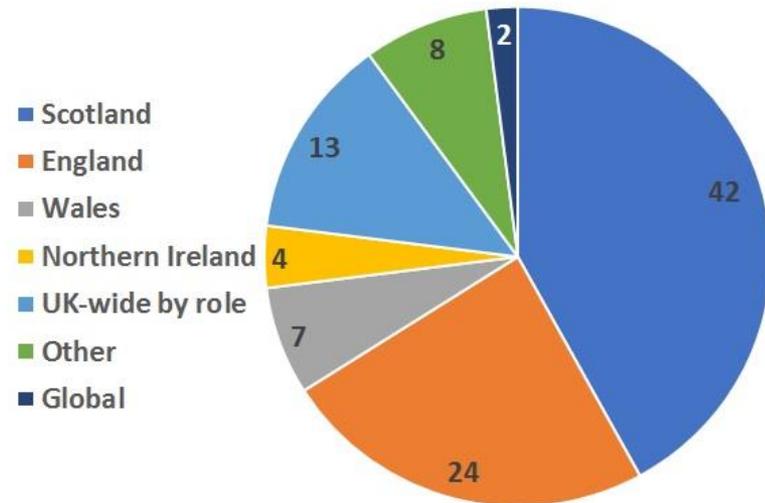
Progression of the network

- **480** members as of February 2019. Up from 335 in February 2018.
 - **Sector breakdown:** 282 academia, 94 industry, 104 other.
 - **Regional distribution:** Scotland (42%), England (24%), Wales (7%), Northern Ireland (4%), UK-wide by role (13%), Other (8%), Global (2%).

Sector representation



Regional distribution



- Twitter – **750 followers** (up by 247% over last year).
 - 54% based in UK, 5% in USA, remainder from ~60 countries globally.

Shellfish consumption and human health

- One-day event. Detection and remediation of human health issues.
- 31 delegates attended the Swansea-based workshop.
- Morning session reviewing current practices.
 - FSA, EA, DCWW, NRW. Regulations, standards, microplastics, current understanding of the issues, sources of water pollution.
- Afternoon focussing on current work for future security.
 - Selective breeding, molecular basis for *Vibrio*, insects as model organisms, water quality monitoring and chemical tracers.



1st ARCH-UK Annual Science Event

- Two-day event at the Agri-Food and Biosciences Institute, Belfast.
- Well-attended – 85 delegates from academia, industry and policy.
- Review of finfish and shellfish aquaculture in the UK.
- Announcement of the new 2018-funded Aquaculture Initiative projects, a £5.1 million investment by UKRI.
- Consortia and project overviews by project leads.
- Early Career Researcher networking session.



Microplastics, Aquaculture & Fisheries - a Risk Assessment

- Event at Fishmongers' Hall attended by 60, oversubscribed by >50%.
- Two main questions asked during round table discussion sessions:
 - Are micro-plastics dangerous to fish and shellfish 'health'?
 - Are micro-plastics in fish and shellfish of any risk to human health?
- Morning overview of current research and understanding of effects.
- Afternoon looking at more specific aspects.
 - Antifouling paint particles, FSA perspectives, DEFRA environmental standing.



Total attendance figures at events are great but...

- Sector-specific representation is of great importance!
- Events are very well attended, but this figure is not everything.
- Two areas of focus for our events are:
 - Furthering integration with industry, forming new academia-industry links.
 - To increase ECR attendance and participation. Giving ECRs a platform.

Workshop / event (chronological order)	% attendance by sector				
	Academia	Industry	Policy	Other	Total attendance
Innovative approaches to the detection and remediation of human health issues relating to shellfish consumption	68	10	16	6	31
1 st ARCH-UK Annual Science Event	64	13	12	11	85
Finfish and Shellfish Microbiome Workshop	84	4	3	9	69
Microplastics, Aquaculture & Fisheries – a Risk Assessment	60	20	10	10	60
International Finfish Sterility Workshop	50	40	0	10	66

Future events, 2019

- **1st Symposium on welfare in aquaculture – welfare indicators for novel species**
 - 14th May, 9am – 5pm, Swansea University
- **Oyster cultivation in a changing climate - a joint workshop of BlueFish, SAGB and ARCH-UK**
 - 15th May, 1:15pm – 5pm, Fishmongers' Hall, London
- **Future outlook for genetic improvement in aquaculture**
 - 20th May, 9am – 5pm, The University of Edinburgh.
- **Aquaculture Students Association careers day**
 - 20th May, 9am – 4:30pm, University of Stirling
- **The 2nd ARCH-UK Annual Science Event**
 - 26th and 27th June, 9am – 5pm, University of Stirling.

UK aquaculture research update

- Consideration is being given to the production of an annual or bi-annual 'research update' publication.
- Content / themes to be determined.
- What will be included:
 - Updates on each of the BBSRC/NERC aquaculture initiative projects.
 - Updates / spotlighting of projects funded by other means.
- Target audience of publication would determine the types of projects featured, as well as other topics/themes in terms of further content.
- The publication would need to be focussed to some degree.

- **What are your thoughts?**
- **What would you like to see from such a publication?**
- **What could be achieved?**

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STIRLING



UNIVERSITY OF
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