

## Salmon Aquaculture Workshop

2<sup>nd</sup> and 3<sup>rd</sup> of December 2025

### 2<sup>nd</sup> December 2025

10am Registration Pre Clonellan suite

*Welcome Tea, Coffee and Scones*

#### Clonellan Suite, Chair, Rory Campbell, BIM

|       |   |                                 |
|-------|---|---------------------------------|
| 10:30 | Event welcome                           | Rory Campbell, BIM              |
| 10:40 | Bubble Curtain deployment, an evolution | Michael Sammon, Clear Seas Aqua |
| 11:00 | Bubble curtains – Daily operation       | Aisling Doogan, Oceanfarm       |
| 11:20 | Bubble curtain, industry results        | Geoff Robinson, BIM             |
| 11:40 | Fish Health overview                    | Felix Scholz, STIM              |
| 12:15 | Q and A                                 | Rory Campbell                   |
| 12:25 | <i>Lunch and Networking</i>             | Cedar Restaurant                |

#### Clonellan Suite, Chair, Teresa Morrissey, IFA aquaculture

|       |  |                                 |
|-------|--|---------------------------------|
| 13:45 | PCR testing by fish health biologists                    | Sarah McEvoy, Mannin Bay Salmon |
| 14:05 | DNA detection of HABS                                    | Jens Carlsson, UCD              |
| 14:25 | Natural antimicrobial solutions to improve animal health | John Cullen, Auranta            |
| 14:45 | National Sea lice monitoring program                     | Pauline O'Donohoe, MI           |
| 15:05 | Fish Health surveillance                                 | Brian Quinn, Wellfish Tech      |
| 15:15 | Q and A  | Teresa Morrissey                |
| 15:25 | <i>Tea, Coffee and Networking</i>                        | Pre Clonellan suite             |

#### Clonellan Suite, Chair, Damien Toner, BIM

|       |  |                                 |
|-------|--|---------------------------------|
| 15:50 | Fish Health Camera technology, Aquabyte    | Clara McGhee, MOWI              |
| 16:10 | Fish Health Camera technology, Ace Aquatec | Frank Madden, Mannin Bay Salmon |

This event has been supported by the European Maritime, Fisheries and Aquaculture Fund 2021-2027 (EMFAF).



Rialtas na hÉireann  
Government of Ireland



Arna chomhchistiú ag  
an Aontas Eorpach  
Co-Funded by the  
European Union

|       |                                       |                         |
|-------|---------------------------------------|-------------------------|
| 16:20 | Underwater visualisation and training | Brian Murphy, TC Marine |
| 16:40 | End of Day Q and A                    | Damien Toner, BIM       |
| 19:00 | <b>Workshop Dinner</b>                | <b>Clonellan Suite</b>  |

### 3<sup>rd</sup> December 2025

#### Clonellan Suite, Chair Joanne Gaffney, BIM

|       |   |   |
|-------|---|---|
| 9:25  | Introduction  | Joanne Gaffney                          |
| 9:30  | Optimisation of remote sensing and Sampling           | Tara Chamberlain, Southwest<br>Aquatech |
| 9:55  | Hybrid system design and optimisation                 | Patrick Grehan, Daretech                |
| 10:10 | Vertical axis wind turbines and marine<br>deployments | Tomas Flanagan, Eire Composites         |
| 10:25 | BIM Fish welfare training                             | Felix Scholz, STIM                      |
| 10:35 | Q and A   | Joanne Gaffney                          |
| 10:45 | <i>Tea, Coffee and Networking</i>                     | Pre Clonellan Suite                     |

#### Clonellan Suite, Chair, Joanne Gaffney, BIM

|       |  |                              |
|-------|--|------------------------------|
| 11:00 | HVO trials and carbon reduction        | Ronan Cooney, BIM            |
| 11:20 | Freshwater and Power Production        | Paul Brewster, Sea Potential |
| 11:40 | Hybrid system use onboard a feed barge | Padraig McLoughlin, MOWI     |
| 12:00 | MMG Ocean and Aquaculture              | Martin McGuinness, MMG Ocean |
| 12:15 | Discussion and Conference Close        | Joanne Gaffney, BIM          |

## Speaker Biographies

### **Rory Campbell, Seafood Technical Services Director, Bord Iascaigh Mhara**

Rory Campbell is director of Seafood Technical Services at BIM. As part of his role, he oversees two aquaculture teams within BIM, one in aquaculture development, and a second regional team. Under his direction, the technical team have undertaken timely, industry-relevant trials aimed at improving fish health and welfare and cost competitiveness. Rory has a degree in aquaculture from the University of Aberdeen and worked for 10 years with a large Finfish aquaculture company in Scotland.

### **Michael Sammon, Director, Clear Seas Aqua Ltd**

Michael Sammon's passion for sustainable aquaculture practices drives him to continually seek innovative solutions that balance environmental stewardship with economic viability. Beyond his professional pursuits, he is deeply committed to sharing his knowledge and fostering collaboration within the fishing and aquaculture communities.

### **Aisling Doogan, Fish Health Biologist, Oceanfarm.**

Aisling is a freshwater and marine biologist with experience in aquaculture, hatchery operations, river and lake survey work and salmon migration research. After time working on an ESB hatchery site and a summer with the Loughs Agency, Doogan moved into salmon migration research using acoustic telemetry, coded-wire tag and salmon scale analysis. Aisling now works as a Fish Health and Welfare Biologist with Ocean Farm, focusing on Atlantic salmon and wrasse welfare and plankton monitoring. She was involved in BIM's bubble-curtain collaboration with Ocean Farm in 2023 and 2024.

### **Geoff Robinson, Aquaculture Technical Officer, Bord Iascaigh Mhara**

Geoff Robinson is an Aquaculture Technical Officer in BIM's Seafood Technical Services team. Within the aquaculture team he aims to bring and test new technology and ideas to Irish salmon farming for the betterment of the sector. Throughout his 20+ years in BIM he has worked across a range of species from hatchery production to final grow out of shellfish and finfish species. He is always on the lookout for a challenge.

### **Ronan Cooney, Aquaculture Technical Officer, Bord Iascaigh Mhara**

Ronan Cooney is one of the Aquaculture Technical Officers (freshwater and seaweed) at BIM. His previous roles have focused on the environmental assessment of freshwater aquaculture and developing data and indicators which can support the sustainable development of the sector. Ronan brings a strong mix of

academic rigour and applied research to his work. Providing technical advice and support on water quality, water treatment, sustainability and life cycle assessments.

### **Felix Scholz, DVM PhD, STIM**

Head of Clinical Services, STIM Ireland and the UK. Felix has been working as an aquatic animal veterinarian, based in Ireland since 2015 and has been managing the Irish practice since 2019. In 2024 he took on the position of head of clinical services for STIM UK and Ireland. He has extensive experience providing training, veterinary support and consultancy for commercial aquaculture operations including marine and freshwater net-pen systems, recirculation systems, flow-through systems and pond culture of both warm and cold-water species, in Ireland and abroad. He also works with public aquaria keeping a wide range of marine and freshwater species, wild fisheries and research facilities.

### **Sarah McEvoy, Fish Health Biologist, Mannin Bay Salmon**

Sarah is the fish health biologist with Mannin Bay Salmon for 11 years and has 30 years' experience in aquaculture. Sarah has a keen interest in research and development in the fish health space and is always looking for opportunities to collaborate with research performing organisations who want to deliver in a commercial setting.

### **Jens Carlsson, UCD**

Associate Professor Jens Carlsson is an expert in Conservation, Ecological, and Population Genetics at University College Dublin's (UCD) School of Biology and Environmental Science.

His research primarily employs genetic tools to study questions related to gene flow, genetic drift, selection, and the coupling of genetics with animal behaviours (like mate choice and reproductive success). Prof. Carlsson's work is largely focused on aquatic organisms, including fishes, shellfish, and fascinating deep-sea fauna from hydrothermal vents and methane seeps. He is the co-founder of UCD's Area 52 research group and actively works with environmental DNA (eDNA) technologies for biodiversity monitoring.

### **John Cullen, Managing Director, Auranta**

John Cullen is Managing Director of Auranta, a biotech company based in Dublin. Auranta was co-founded by John and Dr. Patrick Ward in 2013 to focus on the development of natural antimicrobial solutions to improve animal health and resilience using natural plant extracts. The company has developed a range of innovative feed ingredients, for shrimp, salmon and other fish species, that improve immunity and gut health naturally. The company has published 22 peer reviewed scientific papers since 2013 and is supplying products into 20 countries. They are past winners of the BIM Aquatech Business off the year award.

### **Pauline O Donohoe, Senior Researcher, Marine Institute**

Pauline O'Donohoe has been involved with the aquaculture sector in Ireland since 1999. She holds a Senior Researcher position on the Marine Institute Aquaculture Team. Pauline has a M.Sc. in Life Science from the Atlantic Technological University Galway and BSc (Hons) in Marine Science from the University of Galway. She is an Authorised Officer under Fisheries Acts (1959, 2006) and in this capacity manages the National Sea Lice Monitoring Programme and has facilitated the Single Bay Management across the fin-fish farming areas of the west coast of Ireland since 2000. Pauline has been involved in national and international aquaculture research projects. Pauline acts as the Marine Institute Compliance Officer for the Health Products Regulatory Products Authority which oversees Scientific Animal Protection in Ireland. Pauline specialises in marine open water Integrated Multi-Trophic Aquaculture (IMTA), fish health and welfare, and biosecurity of aquaculture production facilities. Pauline also holds the role of Health and Safety Coordinator for the Marine Institute.

### **Clara McGhee, MOWI**

Clara is the interim seawater director for MOWI Ireland. Clara holds a BSC in sustainable development and a Masters in Sustainable aquaculture. Following 6 years with MOWI Scotland in various farming roles, she moved to MOWI Ireland and overseas seawater operations. Clara is passionate about trialling and testing innovative technologies that can assist the Irish aquaculture sector overcome current challenges.

### **Frank Madden, Mannin Bay Salmon**

Frank Madden is the site manager at Mannin Bay Salmon. Frank Manages two sites for Mannin Bay Salmon and works with BIM on projects that will enhance fish health and welfare whilst enhancing growth efficiency and food conversion ratios.

### **Brian Murphy, Director, TC Marine**

Oceandivers Ltd, trading as TC Marine specialise in Commercial Diver and ROV training, Marine Safety Services and Marine Consultancy. Brian Murphy has a history as a saturation diver in the North Sea and over 35 years' experience in the marine industry. Brian has held the role as Commercial Diver Training Director at the BIM National Fisheries College in Castletownbere since 2018 and is currently working with BIM to provide insight and training in the use of ROVs in the aquaculture industry

### **Joanne Gaffney, Aquaculture Technical Manager, Bord Iascaigh Mhara.**

Joanne Gaffney is Aquaculture Technical Manager at Bord Iascaigh Mhara (BIM). With a strong track record in supporting Ireland's seafood sector, Joanne works closely with industry stakeholders to drive

sustainable practices, foster innovation, and deliver practical solutions that strengthen coastal communities. Passionate about the future of Ireland's marine resources, she is dedicated to promoting growth, resilience, and long-term sustainability within the seafood industry

#### **Tara Chamberlain, Director, Southwest Aquatech Ltd.**

Tara has been working in the Aquaculture and Marine environment for over 32 years, from sea urchin hatcheries to salmon farms with university research stations, local authorities and national agencies in the middle. Initially studying Aquaculture science, Fisheries science and Oceanography and then Environmental management. Her journey has included all levels of working engagement with state agencies, research organisations and private enterprises. Specialising in marine phytoplankton monitoring, prediction and related issues. Working on the Irish biotoxin national monitoring programme for over 22 years, has further allowed Tara to assist work with the next generation of challenges facing aquaculture industries, coastal water authorities and state agencies.

#### **Patrick Grehan, Director, Daretech**

Patrick has over 10 years' experience in the marine industry, in electrical design and as a project engineer, with a BEng in Electronic and Communications Engineering from Napier University, Edinburgh and a master's in marine renewable energy from University College Cork.

Areas of expertise include mechanical and electrical design of renewable and energy efficiency systems for the marine environment, marine electronics, control and communications systems, and technology and product development, with a particular focus on battery technology.

Patrick has significant experience developing complex engineering projects from concept through to fabrication, assembly, testing and operation in marine applications.

#### **Tomás Flanagan, Director, Emerald Energies**

Tomás Flanagan is CEO of EireComposites and Emerald Energies. Tomás has a PhD from the University of Cambridge Engineering Design Centre, focused on design project planning and management with special emphasis on simulation and risk analysis. He previously worked in roles as Turnaround Manager at BP Norway and Offshore Construction team lead in BP Angola. He has secured over €20m in new R&D funding for aerospace and renewable energy.

ÉireComposites is an advanced engineering company focused on the development of composite products. It is based in Inverin, Galway, and is one of the largest employers in the Connemara Gaeltacht. The business is well known in the market as an innovative design, manufacturing, research and testing company, involved in lightweight, high-performance composite materials, with an international blue-chip customer-base in the aerospace and renewable energy sectors.

Emerald Energies is a renewable energy company, focused on the research and development of innovative floating offshore wind turbine solutions. Its mission is to drive rapid advancements in the floating offshore wind sector by leveraging cutting-edge technology, with a strong emphasis on reducing the costs of floating substructures, ultimately making clean energy more accessible and sustainable. The company is currently testing a floating wind turbine and plans to deploy at a fish farm in Cork early next year.

### **Paul Brewster, Director, Sea Potential**

Dr Paul Brewster is the co-founder and CTO of Sea Potential and has worked in the ocean energy sector since 2002.

Paul holds a PhD in Civil Engineering from Queens University Belfast and is a Chartered Engineer with over two decades of experience in established and emerging marine sectors – in particular on the development of wave energy technologies and analysis of policy issues for government bodies responsible for the sustainable development of marine resources, sustainable energy and maritime transport.

Sea Potential has developed the DUO wave energy technology that can be configured to produce freshwater from desalination or electricity for power at sea applications.

### **Padraig McLoughlin, Maintenance Manager, MOWI**

Padraig McLoughlin is from Newport, Co Mayo. He is maintenance manager with MOWI Ireland and has worked with MOWI for almost 10 years. He is a qualified fitter by trade and has experience in mechanical, marine and electrical engineering, including design and fabrication of machines. Padraig also adds safety features for machinery and equipment using manual and CNC manufacturing processes. He also has experience in design and repairs of hydraulic and pneumatic systems. He has always had an interest in boats and aquaculture with previous experience in seaweed and shellfish and transport.

### **Martin McGuinness, MMG Ocean**

**MMG Ocean was founded in 2005 by Martin McGuinness as a marine engineering service provider to the fishing industry in Killybegs. Since then, the company has grown into an export-focused enterprise, broadening its capabilities across the wider marine sector with a particular emphasis on aquaculture.**

With a keen eye on emerging trends across aquaculture and fisheries, Martin has consistently identified opportunities to apply MMG Ocean's marine heritage, engineering expertise, and innovative mindset to support the sector's future. He recognised early the global shift toward new technologies that would make the marine industry more attractive, efficient, and sustainable. Under his leadership, MMG Ocean has leveraged its skill sets to develop forward looking solutions that enable long term growth for both the company and the wider industry in Ireland.



This strategic approach has helped MMG Ocean build a strong presence in Ireland, Scotland, and Norway, where it is now recognised for its engineering capabilities, collaborative approach, and commitment to innovation.

Martin is deeply committed to the development of Ireland's Aquatec sector. He is passionate about creating new opportunities for his team, investing in their skills, supporting their engagement with international partners, and fostering a culture of learning and innovation. His focus on collaboration, talent development, and sustainable growth continues to drive MMG Ocean's impact both at home and abroad.

**Dave Cockerill, Director, UK and Ireland, Wellfish Tech.**

With more than 25 years' experience as both an independent and in-house veterinarian and holding the role of Fish Health Director at two of Scotland's leading Salmon Producers, Dave's leading experience of aligning fish health and welfare to sustainable and profitable farming, aims to objectively characterise fish well-being using tools that allow more informed management choices.