



**Aquaculture Horizons**

April 28–30, 2025 | Setúbal, Portugal

International Conference and Exhibition on

# AQUACULTURE & FISHERIES

**April 28–30, 2025 | Polytechnic University of Setubal, Portugal**

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# INSTRUCTIONS FOR SPEAKERS

1. **Keynote Talks:** Keynote speakers will be allotted 20 minutes to present their results, followed by a 5 minutes discussion period.
2. **Invited Talks:** Invited speakers will be allotted 17 minutes to present their results, followed by a 3-minutes discussion period.
3. **Oral Talks:** Oral speakers will be allotted 12 minutes to present their results, followed by a 3-minutes discussion period.
4. Please do not exceed the allotted time slot.
5. Speakers should have their presentations saved on a USB memory stick.
6. It is suggested to email a copy of the presentations to us as back up.
7. Please prepare the presentation in PPT files, PDF is not recommended.
8. **Basic AV setup will be provided:** laser pointer, cordless mike, desktop mike, sound system.
9. Laptops equipped with Windows 10, Office 2010 Pro English (Word, Powerpoint, Excel) and Adobe Reader are provided.
10. If your presentation files contain movies, please make sure that they are well formatted and connected to the main files. You may check your slides during the breaks.
11. Projectors are equipped with standard VGA connection ports. Mac users should bring their own adapter cord.
12. Please re-check this program prior to the conference to confirm if any changes have been made to your session.
13. Conference volunteers will move the mic during Q&A. Audience with questions may raise hand to receive the mic.

# INSTRUCTIONS FOR POSTER

1. Maximum poster size is A0.
2. Push pins for attaching the poster to the board will be provided.
3. Poster presenters will be directed to the designated board at the start of the poster session.
4. Author must be present to provide details and answer questions during the selected poster session times.



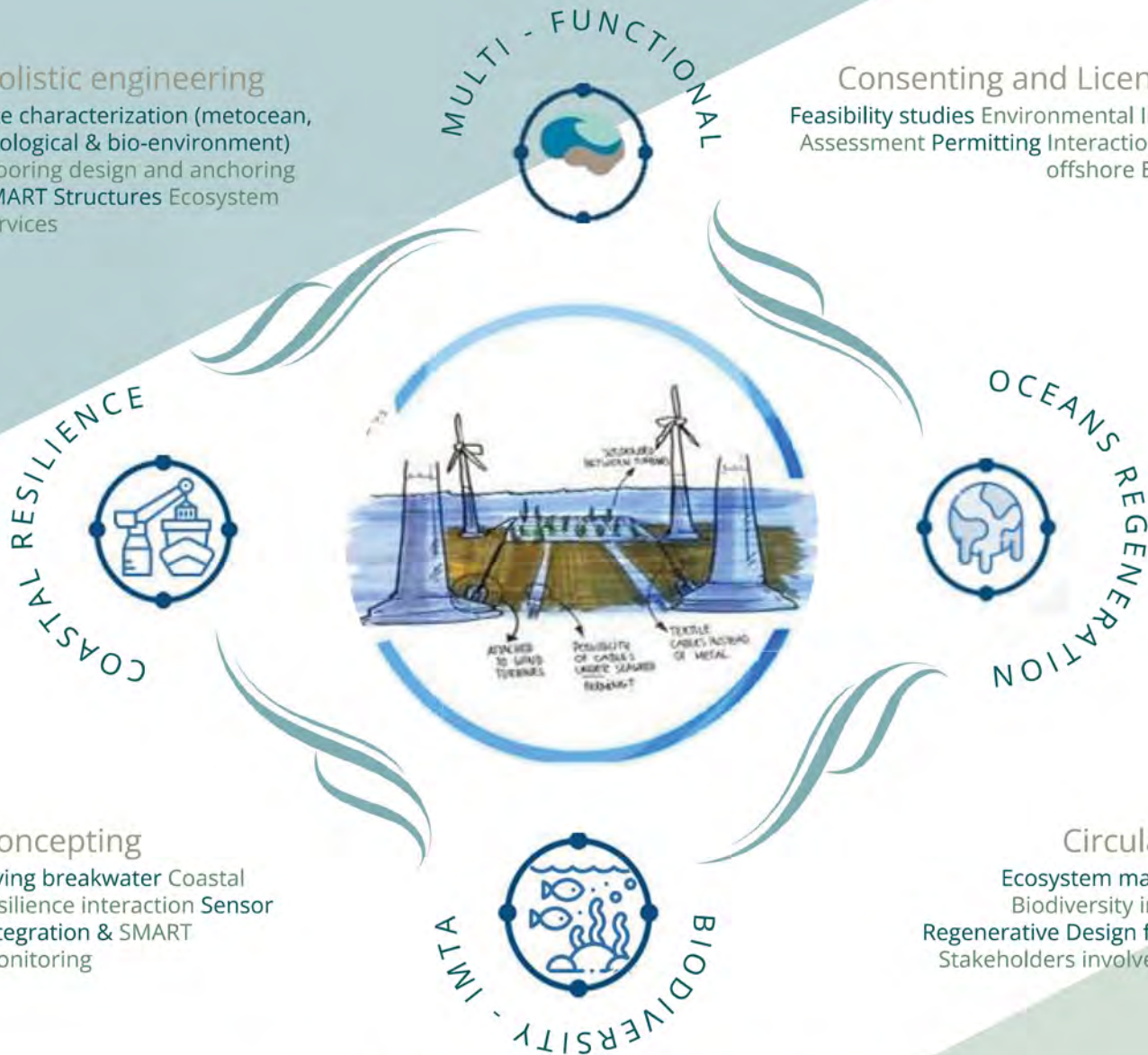
# AQUACULTURE SOLUTIONS

## Holistic engineering

Site characterization (metocean, geological & bio-environment)  
Mooring design and anchoring  
SMART Structures Ecosystem services

## Consenting and Licensing

Feasibility studies Environmental Impact Assessment Permitting Interaction with offshore Energy



## Concepting

Living breakwater Coastal resilience interaction Sensor integration & SMART monitoring

## Circularity

Ecosystem mapping  
Biodiversity impact  
Regenerative Design for life  
Stakeholders involvement

# TRACK RECORD

## I3-4 seaweed

An EU-wide project with 16 partners advancing sustainable seaweed cultivation and biotech, where HAEDDES develops a Digital Twin to optimize aquaculture yield and health.

## PRR Vertical Bivalves

Led by Oceano Fresco, this project targets regenerative bivalve aquaculture, with HAEDDES creating an Ecosystem Services Assessment Tool to boost sustainability and farm performance.

## Aquabreak

HAEDDES leads this eco-innovation project combining seaweed farming with coastal protection via a Nature-Based Solution, enhancing ecosystem services and coastal resilience in Portugal and Norway.

## Application

**NEXUS:** HAEDDES visualizes real-time aquatic data to reveal ecosystem dynamics and support sustainable waterway management.

**NESEV:** A HAEDDES platform modeling ecosystems as scalable, interactive networks across nature, society, and economy.

## ADVISORY BOARD MEMBERS



**Hon. Prof. Roy D. PALMER**

Founder – Association of International  
Seafood Professionals & Seafood  
Consumers Association, Australia



**Andreia C. M. Rodrigues**

Aix Marseille University, France



**Paul Robert Van Der Heijden**

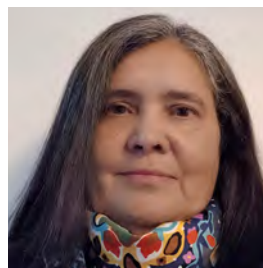
Founder, Mature Development BV  
Netherlands

## COMMITTEE MEMBERS



**Ricardo Salgado**

Setubal Polytechnic University  
Portugal



**Ana Mata**

Setubal Polytechnic University  
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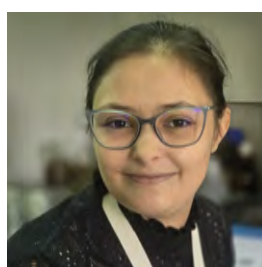
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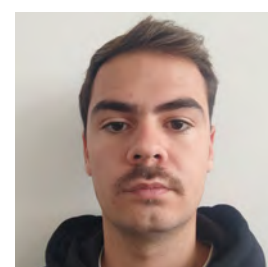
**Dina Galhanas**

Setubal Polytechnic University  
Portugal



**Inês Ferreira**

Setubal Polytechnic University  
Portugal



**Romeu Ribeiro**

Setubal Polytechnic University  
Portugal

# Setubal Polytechnic University Welcomes Participants of Aquaculture Horizons 2025 Conference

**Welcome to all participants, speakers and guests,**

It is with great pleasure that of Setubal Polytechnic University welcomes the Aquaculture Horizons 2025 conference, which marks an important moment of meeting and exchanging knowledge.

We are very happy to bring together professors, students, researchers and professionals from the sector who will contribute to the advancement of discussions and innovations in Aquaculture.

This event offers a unique opportunity to learn, share ideas and create new partnerships. Throughout the days, there will be the opportunity to explore relevant topics, listen to presentations from renowned experts and participate in debates that will shape the future of aquaculture.

The hosting of the Aquaculture Horizons 2025 conference will mark an important moment for the Setubal Polytechnic University and for the Setubal region, where aquaculture represents an important sector. Each person's commitment to building an environment of collaboration and excellence will contribute to the success of the conference.



**Prof. Ângela Maria  
Gomes Teles de Matos  
Cremon de Lemos**

President of Setubal  
Polytechnic University  
Portugal



# DAY - 1, 28 APRIL, 2025

## AQUACULTURE HORIZONS 2025

### INTERNATIONAL CONFERENCE AND EXHIBITION ON AQUACULTURE POLYTECHNIC UNIVERSITY OF SETUBAL, PORTUGAL

**08:00 – 08:30** Registrations

**08:30 – 08:45** **Welcome**

**Paul Robert van der Heijden**, MatureDevelopment BV, The Netherlands

**Antonio Correia**, Aquanostra, Portugal

**Luisa Torre**, Polytechnic University of Setubal, Portugal

## ROOM-A

**Session Chair: Paul Robert van der Heijden**, MatureDevelopment BV, The Netherlands

**08:45 – 09:10** **Keynote Talk:** Offshore the Future of Aquaculture

**Paulo Serra Lopes**, Mariculture Systems Ltd, Portugal

**09:10 – 09:35** **Keynote Talk:** The Context of the Aquaculture Industry in Portugal and Setúbal: Challenges and Opportunities

**Antonio Correia**, Aquanostra, Portugal

**09:35 – 10:55** **Crustacean and Shellfish Innovation Session– Chair Gregory Smith, University of Tasmania, Australia**

**09:35 – 09:55** **Title:** Larval Culture of the Tropical Spiny Lobster *Panulirus homarus*; A New Candidate Species for Aquaculture in Oman

**Mohamed Al Wahabi**, Center for Excellence in Marine Biotechnology, Sultanate of Oman

**09:55 – 10:15** **Title:** *Palinurus elephas* Culture – Fishery Restoration and Farming?

**David J Fletcher**, RAS Aquaculture Research Ltd, United Kingdom

**10:15 – 10:35** **Title:** Molecular Insights into the Life History of the Ornate Lobster (*Panulirus ornatus*): A Breakthrough in Decapod Research

**Tomer Ventura**, University of the Sunshine Coast, Australia

**10:35 – 10:55** **Title:** The Benefits and Pitfalls of Ozone Use in Marine Hatchery Systems

**Gregory Smith**, University of Tasmania, Australia

**10:55 – 11:25** **Refreshment Break**

**11:25 – 13:25** **Session Chair: Paul Robert van der Heijden**, MatureDevelopment BV, The Netherlands

**11:25 – 11:45** **Title:** European Lobster Farm Scale Up Powered by Artificial Intelligence

**Asbjorn Drengstig**, Norwegian Lobster Farm, Norway

**11:45 – 12:05** **Title:** The Science Behind Artificial Intelligence Powered European Lobster Production

**Carly Daniels**, Norwegian Lobster Farm, Norway

**12:05 – 12:25** **Title:** Conserving the European Black Lobster (*Homarus gammarus*) through Breeding, Research, and Community Engagement at the North Sea Oceanarium, Denmark

**Martin W Riis**, Northsea Oceanarium, Denmark

**12:25 – 12:45** **Title:** Effect of Artemia Prey Size, Type of Prey and V-UV Irradiation on Survival and Growth Performance of European Lobster Larvae

**Ivar Lund**, Danish Technical University, Denmark

<b>12:45 – 13:05</b>	<b>Title:</b> Advances in the Management of Cannibalism in the Ornate Rock Lobster <i>Panulirus Ornatus</i> <b>Quinn Fitzgibbon</b> , University of Tasmania, Australia
<b>13:05 – 13:25</b>	<b>Title:</b> Variation in Reproductive Traits of the Mud Crab ( <i>Scylla olivacea</i> ) Across the Indo-Pacific: Implications for Aquaculture and Sustainable Fisheries Management <b>Sukree Hajisamae</b> , Prince of Songkla University, Thailand
<b>13:25 – 14:15</b>	<b>Lunch Break</b>
<b>14:15 – 16:05</b>	<b>Session Chair–Dusan Palic, Ludwig–Maximilians–University Munich, Germany</b>
<b>14:15 – 14:35</b>	<b>Title:</b> Microbial Flocculation : Exploring the Avenue in Green and Smart Aquafarming <b>Babitha Rani Asanaru Majeedkutti</b> , ICAR–Central Institute of Fisheries Education, India
<b>14:35 – 14:55</b>	<b>Title:</b> Trade–off Between Fisheries Utilization and Environmental Protection in Lakes of China <b>Jiashou Liu</b> , Institute of Hydrobiology, Chinese Academy of Sciences, China
<b>14:55 – 15:15</b>	<b>Title:</b> Environmental Effect on Oyster Growth in the Sado Estuary (Portugal) <b>Dina Galhanas</b> , Setubal Polytechnic University, Portugal
<b>15:15 – 15:35</b>	<b>Title:</b> The Secondary Sexual Characteristics of Female <i>Procambarus clarkii</i> : Application in the Accurate Identification and Selection of Mature Female Crayfish <b>Wei Li</b> , Institute of Hydrobiology, Chinese Academy of Sciences, China
<b>15:35 – 16:05</b>	<b>Refreshment Break</b>
<b>16:05 – 18:05</b>	<b>Session Chair– Dusan Palic, Ludwig–Maximilians–University Munich, Germany</b>
<b>16:05 – 16:25</b>	<b>Title:</b> Shape Your Body: Early–Life Environment Shapes Claw Bilateral Asymmetry in the European Lobster ( <i>Homarus gammarus</i> ) <b>Gioia Burini</b> , University of Tuscia, Italy
<b>16:25 – 16:45</b>	<b>Title:</b> Does Genetic Bottlenecking Undermine European Lobster Hatchery Stocking? <b>Charlie Ellis</b> , University of Exeter, United Kingdom
<b>16:45 – 17:05</b>	<b>Title:</b> Into the Wild: A New Approach to the Aquaculture Production of Brown Trout ( <i>Salmo trutta L.</i> ) to Promote Restocking Success <b>Carlos M. Alexandre</b> , University of Evora, Portugal
<b>17:05 – 17:25</b>	<b>Title:</b> Bridging Conservation and Fisheries: Restorative Aquaculture in Tasmania <b>Andrew Trotter</b> , University of Tasmania, Australia
<b>17:25 – 17:45</b>	<b>Title:</b> Recent Models of the Hydroelastic Behaviour of Floating Flexible Net Cages for Offshore Aquaculture <b>Sarat Chandra Mohapatra</b> , Instituto Superior Tecnico, Portugal
<b>19:30 Onwards</b>	<b>Conference Dinner at Forte de Albarquel</b> <b>Welcome Note from The Mayor of Setubal, André Valente Martins</b>

## ROOM–B

<b>14:15 – 15:35</b>	<b>Workshop : Innovative Aquaculture for Sustainability: Advancing Sustainable Practices Across the Seafood Industry</b> <b>Gregory Smith</b> , University of Tasmania, Australia <b>Linn Indrestrand</b> , Port of Hirtshals, Denmark <b>Jean–Jose Filippi</b> , Hatchery Manager, Stella Mare, Marine Research Centre, University of Corsica and CNRS, Corsica <b>Andrew Trotter</b> , University of Tasmania, Australia
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# DAY - 2, 29 APRIL, 2025

## AQUACULTURE HORIZONS 2025

08:35 – 10:40	<b>Session Chair–</b> Andreia C. M. Rodrigues, Aix Marseille Université, Mediterranean Institute of Oceanography (MIO), Marseille, France
08:35 – 09:00	<b>Keynote Talk:</b> Healthy Fish for Healthy People: Global Veterinary Efforts to Support Responsible Growth of Aquaculture <b>Dusan Palic</b> , Ludwig-Maximilians-University Munich, Germany
09:00 – 09:20	<b>Title:</b> Revolutionizing Aquaculture Health Monitoring with AI-Powered Diagnostics <b>Ihor Feoktistov</b> , Leven Vision B.V, The Netherlands
09:20 – 09:40	<b>Title:</b> Parasites and Health Condition of Marine Resources in A Framework of Global Change: Cases of Study in the Catalan Coast (NW Mediterranean) <b>Carmen Gilardoni</b> , Institute of Marine Science (ICM CSIC), Spain
09:40 – 10:00	<b>Title:</b> Effects of Microplastics on Blue Mussel ( <i>Mytilus edulis</i> ) <b>Aurore Zalouk-Vergnoux</b> , Nantes University, France
10:00 – 10:20	<b>Title:</b> Vertical Fish Project – Impact of Anisakis spp. Infection Levels on the European Hake ( <i>Merluccius merluccius</i> ) Fillet Quality <b>Sónia Gomes</b> , University of Porto, Portugal
10:20 – 10:40	<b>Title:</b> Development of Oral Vaccines for Aquaculture Using Spore-Surface-Display Technology <b>Claudia R. Serra</b> , CIIMAR – Interdisciplinary Centre of Marine and Environmental Research, Portugal
10:40 – 11:10	<b>Refreshment Break</b>
11:10 – 12:30	<b>Session Chair–</b> Ana Antunes, Setubal Polytechnic University, Portugal
11:10 – 11:30	<b>Title:</b> The Feasibility of Agricultural Wastes on Optimizing Water Quality and Natural Bait By Regulating Microbial Loop <b>Chunlei Song</b> , Institute of Hydrobiology, Chinese Academy of Sciences, China
11:30 – 11:50	<b>Title:</b> Improving Marine FinFish Seedstock Production <b>Marty Riche</b> , Florida Atlantic University, USA
11:50 – 12:10	<b>Title:</b> Bridging Ecosystems: Aquaculture’s Role in the Spread of Marine NonIndigenous Species <b>Romeu S. Ribeiro</b> , Setubal Polytechnic University, Portugal
12:10 – 12:30	<b>Title:</b> Introducing CADMUS to HACCP <b>Roy D. Palmer</b> , Association of International Seafood Professionals, Australia
12:30 – 13:15	<b>Lunch Break</b>
13:15 – 15:15	<b>Panel: Aquatic Animal Welfare Open Discussion Forum</b> <b>Title:</b> New Frontiers in Animal Welfare: Emerging Tools and Techniques <b>Andreia Rodrigues, Dusan Palic, Francesc Padros Bover &amp; Billo Heinzpeter Studer</b>  <b>Title:</b> Why Animal Welfare Matters: Opening the Dialogue <b>Andreia C. M. Rodrigues</b> , Aix Marseille Université, Mediterranean Institute of Oceanography (MIO), Marseille, France



**Title:** Disease Control and Prevention Tools to Support Fish Health and Well Being

**Dusan Palic**, Ludwig-Maximilians-University Munich, Germany

**Title:** Fish Welfare in Fish Farming: Present Crossroads and Future Challenges

**Francesc Padros Bover**, Veterinary School of the Universitat Autònoma de Barcelona, Spain

**Title:** Fish Welfare: Ensure Well-Being or Reduce Suffering?

**Billo Heinzpeter Studer**, think.fish, Italy

**15:15 – 15:45 Refreshment Break**

**15:45 – 18:25 Session Chair– Andreia Rodrigues, Aix Marseille Université, Mediterranean Institute of Oceanography (MIO), Marseille, France**

**15:45 – 16:05 Title:** Effects of Replacing Fish Oil and Fishmeal with Microbial Diets on Salmon Growth, Lipid Composition and Gene Expression

**Chris Parrish**, Memorial University of Newfoundland, Canada

**16:05 – 16:25 Title:** Protein Alternatives from Circular Bioeconomy for Aquafeeds

**Luisa M.P.Valente**, CIIMAR – Interdisciplinary Centre of Marine and Environmental Research, Portugal

**16:25 – 16:45 Title:** White Grape Marc Extracts as Potential Modulators of European Seabass Growth, Immune Status and Disease Resistance

**Claudia R. Serra**, CIIMAR – Interdisciplinary Centre of Marine and Environmental Research, Portugal

**16:45 – 17:05 Title:** Discovering the Antioxidant Potential of Halophyte Plants

**Ines Joao Ferreira**, Setubal Polytechnic University, Portugal

**17:05 – 17:25 Title:** Assessment of Fatty Acid Metabolism in European Lobster (*Homarus gammarus*) Larvae and Postlarvae: A Pathway to Optimized Larval Nutrition

**Renata Goncalves**, S2AQUA– Collaborative Laboratory, Association for a Sustainable and Smart Aquaculture, Portugal

**17:25 – 17:45 Title:** Formulation of Sustainable Fish Feed for Aquaponics: Utilizing Poultry Droppings to Enhance Nutritional Efficiency and Environmental Sustainability

**Vaibhav Bhimraj Naik**, Indian Institute of Technology Kharagpur, India

**17:45 – 18:05 Title:** Vermi–Tea Production from Fish Waste in Vermicomposting Reactor for Enhanced Nutrient Recovery in Aquaponics System

**Ahmad Faisal**, Indian Institute of Technology Kharagpur, India

**18:05 – 18:25 Title:** Economic Challenges and Livelihood Resilience in the Baltic Fisheries Sector: The Impact of Feed and Aquaculture Market Shifts

**Michael Rosciszewski-Dodgson**, University of Gdansk, Poland

**18:30 – 19:00 Poster Session**

**Title:** Advancing the Watershed Fragility Index (WFI) for Planning and Designing Sustainable Aquaculture Using AI and Machine Learning

**Michael van Zyll de Jong**, University of New Brunswick, Canada

**Title:** Fish–Parasite–Man: The Triangle That Drive the Adoption of New Strategies for One Health

**Paula Ramos**, CIIMAR – Interdisciplinary Centre of Marine and Environmental Research, Portugal

**Title:** *Stephanostomum* Spp. (Digenea: Acanthocolpidae) A Muscle Parasite of Pouting (*Trisopterus luscus* (Linnaeus, 1758) Collected In Portuguese Waters and Its Risk to Food Safety

**Paula Ramos**, CIIMAR – Interdisciplinary Centre of Marine and Environmental Research, Portugal

# DAY - 3, 30 APRIL, 2025

## AQUACULTURE HORIZONS 2025

09:00 – 10:15

### AI Panel Session

**Title:** What are the Governance Effects of Artificial Intelligence in Aquaculture?

**Paul Robert van der Heijden**, MatureDevelopment BV, The Netherlands

**Title:** Operationalising AI at Scale in Aquaculture

**Hans Petter Dalen**, IBM, Denmark

**Ihor Feoktistov**, Leven Vision B.V, The Netherlands

**Tamara Tatian**, IBM, United Kingdom

10:15 – 10:40

### Refreshment Break

**Session Chair– Paul Robert van der Heijden**, MatureDevelopment BV, The Netherlands

10:40 – 11:20

**Title:** NEXUS: Streamlining Aquaculture Real Time Monitoring

**Joao Alves**, HAEDES, Portugal

11:20 – 11:40

**Title:** Incorporating Image Analysis, Machine Learning, and Automation into Aquaculture Research

**Dean Giosio**, University of Tasmania, Australia

11:40 – 12:00

**Title:** How do we Quantify Shell Quality in Oyster Aquaculture?

**Ernest Chuku**, University of Tasmania, Australia

12:00 – 12:20

**Title:** A Computer Vision Method to Estimate Ventilation Rate of Atlantic Salmon in Sea Fish Farms

**Lukas Folkman**, Griffith University, Australia

12:20 – 12:40

**Title:** Using Computer Vision to Assess the Gill Health of Farmed Atlantic Salmon (*Salmo salar*)

**Quynh Vo**, Griffith University, Australia

12:40 – 13:30

### Lunch Break

**Session Chair– Paul Robert van der Heijden**, MatureDevelopment BV, The Netherlands

13:30 – 13:50

**Title:** Island Innovation – A conversation with James Ellsmoor – Paul van der Heijden will discuss the work of Island Innovation with CEO/Founder James Ellsmoor

**James Ellsmoor**, Island Innovation, Portugal

13:50 – 14:10

**Title:** A Novel AI System to Automatically Measure Shrimp for Selective Breeding in Aquaculture.

**Abiam Remache Gonzalez**, Universidad de Las Palmas de Gran Canaria, Spain

14:10 – 14:30

**Title:** Development of a Low Cost Acquisition Board with Iot Support for Aquaculture Monitoring

**Henrique Primo**, Setubal Polytechnic University, Portugal

14:30 – 15:30

### AI Workshop

**Paul Robert van der Heijden**, MatureDevelopment BV, The Netherlands

**Hans Petter Dalen**, IBM, Denmark

**Tamara Tatian**, IBM, United Kingdom

15:30 – 16:00

### Closing Session & Poster Awards

**Luisa Torre**, Polytechnic University of Setubal, Portugal

**Paul Robert van der Heijden**, MatureDevelopment BV, The Netherlands

**Andreia C. M. Rodrigues**, Aix Marseille Université, Mediterranean Institute of Oceanography (MIO), Marseille, France

# FLOOR PLAN

Blue – Stand and exposition area  
(dark blue – 3 m stand)  
Red – Refreshments  
Yellow – Poster session  
Purple – Lunch  
Green – Toilet

A1 – Auditorium 1 – Room A  
A2 – Auditorium 2 – Room B



## Supporting Partners



## Media Partners



Prism Scientific Services Pty Ltd., a premier conference organizer, is committed to advancing innovation and sustainability in the aquaculture sector. Our mission is to bring together global experts, researchers, and industry leaders to foster knowledge exchange and collaboration that supports responsible aquaculture practices. Through our conferences, we spotlight the latest scientific developments, technologies, and sustainable solutions, playing a key role in shaping the future of aquaculture. With a strong focus on interdisciplinary dialogue, we aim to address pressing challenges such as environmental impact, food security, and marine conservation. Rooted in our commitment to sustainability, we strive to minimize our environmental footprint by promoting green event practices and encouraging eco-conscious engagement. As enablers of progress, we are proud to support the aquaculture industry's journey toward innovation, responsibility, and long-term sustainability.

If you are interested in forming a partnership with us for the planning and organization of conferences and events worldwide, please don't hesitate to contact us via email at [writeus@scientificprism.com](mailto:writeus@scientificprism.com) or by phone at +61 416000202. Our services extend to facilitating conferences anywhere in the world, and we look forward to the opportunity to discuss your specific needs and requirements.

we wish to see you at  
**Aquaculture Horizons – 2026**

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