

2016 OFFSHORE MARICULTURE CONFERENCE EUROPE

6-8 April 2016 • World Trade Centre, Barcelona, Spain

SUPPORTED BY:



CONFERENCE PROGRAMME

Maximizing potential through supply chain, farming and processing innovations

With the ongoing need for growth in aquaculture to feed the human population, the 6th Offshore Mariculture Conference will help fish farmers and producers to grow their business whether it be through moving from coastal to offshore/high energy sites or simply by adding value through intelligent processing and responsible, sustainable aquaculture. Knowledge sharing between regions, unexplained mortality, supply chain innovations and alternative business opportunities that can operate alongside farming, together with a round-up of some of the current research projects that will long term, assist fish farmers to expand and improve their businesses.

Conference chair: Alessandro Lovatelli, Aquaculture Officer, Aquaculture Manager and Conservation Service (FIRA), Fisheries and Aquaculture Department, FAO of the UN. **Keynote speakers:** Ernesto Penas Lado, Director: Directorate A — Policy development and coordination: DG MARE — Directorate-General for Maritime Affairs and Fisheries, Michael Rubino, Director, Office of Aquaculture, NOAA Fisheries Service, National Oceanic and Atmospheric Administration

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The Offshore Mariculture Conference is a Mercator Media Ltd event

Who should attend:

This is a must attend event for anyone involved with, or looking to move to offshore or high energy farming sites. Our 2014 Conference saw over 100 delegates from more than 28 countries benefitting from excellent networking opportunities whilst learning more about the opportunities this sector presents, from the key industry stakeholders.

Special rates available for fish farmers

To ensure the Offshore Mariculture Conference is readily accessible for fish farmers worldwide, we are pleased to offer these individuals preferential rates. All places include invitations to the conference dinner and offshore fish farm visit. To book with your preferential rate contact the Events team on +44 1329 825335 or email conferences@offshoremiculture.com.



DAY ONE – WEDNESDAY 6 APRIL 2016

08.20 COFFEE & REGISTRATION

09.00 Introduction by the Conference Chairman

Alessandro Lovatelli, Aquaculture Officer for the Food and Agriculture Organization of the United Nations (FAO)

09.10 Welcome address

Bernardo Basurco de Lara, Vice-President, Sociedad Espanola de Acuicultura

Keynote addresses

09.30 Ernesto Penas Lado, Director: Directorate A — Policy development and coordination: DG MARE — Directorate-General for Maritime Affairs and Fisheries

Michael Rubino, Director, Office of Aquaculture, NOAA Fisheries Service, National Oceanic and Atmospheric Administration

10.10 QUESTIONS & ANSWERS

10.20 COFFEE & NETWORKING

SESSION 1 – MOVING TO HIGH ENERGY OR OFFSHORE SITES: THE CHALLENGES AND OPPORTUNITIES

10.50 Offshore mariculture – where and why?

Donna Lanzetta, CEO, Manna Fish Farms

We must plant the sea and herd it's animals using the sea as farmers instead of hunters. That is what civilization is all about – farming replacing hunting. To quote Jacques Yves Cousteau, famed oceanographer and legendary film maker. Offshore Mariculture provides an extraordinary opportunity to sustainably farm seafood to feed our rapidly growing populations. High Energy offshore sites allow Ocean Farms to be naturally integrated into the environment... Learn about why and where.

11.10 Analysis of an offshore aquaculture system in the Ecuadorian coast

Alonso Echevarria Ubilla, Director, AEX Group

There is a consensus that the future of aquaculture in Latin America lies in the exploitation and relocation of floating cages in open sea, far from the coast. Oceanfarm, the only offshore farmers in Ecuador, produce cobia 9 miles off the coast. In this study environmental loads such as, currents, waves and winds, which impact the cultivation structures, were measured for one month. Also measured were tensions on the mooring line to see the relationship between the speed and direction of winds and currents and stress on the mooring lines.

11.30 Offshore aquaculture development in UK waters – opportunities and challenges

Eleni Papathanasopoulou, Plymouth Marine Laboratory

Using decommissioned offshore oil & gas rigs in the North Sea for offshore aquaculture is a possibility however it comes with its challenges. A review of the social and environmental impact of developing these artificial structures for farming is presented and discussed.

11.50 Analysis of surface floats used in high-energy sites in the rope-grown mussel industry and their impact on commercial yields and marketable quality

John C Bonardelli, Shellfish Solutions

In cooperation with experienced mussel growers in Ireland and Bulgaria, an independent study was carried out to evaluate and compare the efficiency of ribbed surface floats to other similar-sized floats commonly used in offshore exposed environments. The results substantiate that JFC ribbed-floats can increase commercial yields/meter up to 47% more on surface longlines in exposed locations, in a shorter time frame, at lower cost, and with equal or higher meat yields than for mussels with similar histories using other equivalent-volume floats.

12.10 QUESTIONS & ANSWERS

12.20 LUNCH & NETWORKING

SESSION 2 – PRODUCT UPDATES

13.35 Product update from Morenot

13.45 Product update from FISA

13.55 Product update from Hvalpsund Net

SESSION 3 – EMERGING BUSINESS OPPORTUNITIES AND INDUSTRY PROJECTS

14.05 Marine Investment for the Blue Economy (MARIBE)

José Aguilar-Manjarrez, Aquaculture Officer, Food and Agriculture Organization of the United Nations (FAO) and Tamás Bordócz, Principal Consultant, AquaBioTech Group

MARIBE is a Horizon 2020 project that aims to identify the most promising business models in the Blue Growth economy, by combining different, complementary and synergistic activities at sea at the same location (e.g. energy production and storage, fisheries and aquaculture, transport and logistics hubs) via multi-use of space and multi-use offshore platforms.

14.25 Large-scale offshore seaweed farming: a missing link in the food & feed chain?

Frank Neumann, Kaia Kjolbø Rød, Diogo Raposo and Jon Funderud; Seaweed Energy Solutions (SES)

In the 2014/15 season SES designed, built and successfully operated a 100-ton Pilot farm with the seaweed species *Saccharina Latissima* in semi-exposed waters in Norway, proving the full cycle from spore creation to harvest of wet product on an industrially relevant scale. This contribution will present the pilot project, its challenges, difficulties and solutions found, as well as an appreciation of present cultivation technology and views on future development and the need for collaboration in the sector.

14.45 “DIVERSIFY”: An EU project exploring the biological and socio-economic potential of new/emerging candidate species for the expansion of the European aquaculture industry

Constantinos Mylonas, Coordinator, Diversify Project, Hellenic Centre for Marine Research

The objective of DIVERSIFY (www.diversifyfish.eu) is to acquire the necessary knowledge for the diversification of the European Aquaculture production, based on new/emerging finfish species. The DIVERSIFY consortium includes twenty research and academic institutions, two Large Enterprises, nine Small and Medium Enterprises (SME), five Professional Associations and one consumer NGO (€11.8 million total budget, 2013-2018).

15.05 Blue energy for offshore fish farm sites

David Campbell, Commercial Director, Albatem

Albatem has been developing its novel WaveNET wave energy converter arrays to make electricity from the energy in waves since 2007. A WaveNET array consists of a number of standard ‘Squid’ units close coupled to form a space frame net structure sitting below the water level. The wave motion produces mechanical movement which is captured by a number of standard pumping modules which transfer the energy into hydraulic flow, and this flow is then taken through a marinised hydraulic motor/generator to produce the electricity. Albatem has started by developing smaller modules based around a 7.5kW generator size but can link ‘Squid’ units to develop up to 300kW.

15.25 Southeast Asia – preparing for investment in offshore cage production

Lukas Manomaitis, Technical Consultant, U.S. Soybean Export Council (USSEC), USSEC Aquaculture Program

The culture of marine fish in Southeast Asia will need dramatic improvement if expected demand for regional and international markets is to be met. Current production approaches will not be able to sustainably and effectively meet this demand, and a move to industrial, offshore marine cage operations will almost certainly be needed. This presentation will summarize the current situation, why improvements are needed and how they could be achieved.

15.45 QUESTIONS & ANSWERS

15.55 COFFEE & NETWORKING

SESSION 4 – EXPLORING OPPORTUNITIES IN THE SUPPLY CHAIN THROUGH CUSTOMER REQUIREMENTS, VALUE ADDED PROCESSING AND SUPPLY CHAIN INNOVATIONS

16.25 What can third party certification do for fish farmers?

Marcos Moya, BAP Market Development Manager, Supply Chain, Global Aquaculture Alliance
Seafood buyers and suppliers globally prefer to source seafood from third-party-certified facilities for a variety of environmentally and socially responsible policy reasons. This paper will explain the advantages of being certified by such a scheme.

16.45 Title to be confirmed

Marah Hardt, Research Co-Director, Future of Fish

17.05 QUESTIONS & ANSWERS

17.15 Summary of conference day one

17.25 Conference close

19.30 Conference Dinner at La Gavina Restaurant, Placa Pau Vila, 1, 08039 Barcelona

Conference Dinner

The conference dinner will be held at La Gavina Restaurant in Barcelona. The dinner will be held on Wednesday 6 April 2016 and will provide the perfect atmosphere for delegates to continue networking following the first day of discussions. An invitation is included in every delegate place, so book yours today! Visit our website for more details.

Technical visits



Following the two days of technical presentations and discussions, delegates will have the opportunity to participate in a day of technical visits, including the Mercabarna Central Fish Market and a tour of IRTA, owned by the Government of Catalonia and ascribed to the Department of Agriculture, with the objective of carrying out strategic research in aquaculture.

DAY TWO – THURSDAY 7 APRIL 2016

08.30 COFFEE AND REGISTRATION

09.10 Day two introduction by the Conference Chairman

Alessandro Lovatelli, Aquaculture Officer for the Food and Agriculture Organization of the United Nations (FAO)

SESSION 5 – EMERGING TECHNOLOGIES

09.20 Over-the-Horizon Aquaculture™ – ecological footprint, synergies and remote command-and-control technologies in deep water offshore fish pens

Neil Anthony Sims, Co-Founder & CEO, Kampachi Farms, LLC

As open ocean aquaculture begins to move into deeper waters, further offshore, there is increasing need for automation and remote command-and-control technologies to reduce the reliance on humans to oversee and provide the manual labour for routine husbandry tasks. This paper presents the results of the Velella Gamma-test demonstration project in Kona, Hawaii, which was a collaboration between Lockheed Martin Corporation and Kampachi Farms.

09.40 Smart Floating Farms may bring sustainable food to our cities

Javier F. Ponce, Architect and Founder, Smart Floating Farms

Facing the current challenges of cities growing, land consumption, massive imports and climate change, we propose the Smart Floating Farms project as a complementary alternative to other food production systems. The project deals with the symbiosis / combination of different existing technologies in order to produce what we need more of, fresh and healthy food closer to our homes. Based on a Polyculture multi-layered Floating Platform, it combines mariculture, hydroponics and photovoltaics (solar power).

10.00 Emerging technologies in open ocean mariculture farming platforms

Langley Gace, President, InnovaSea Systems, Inc.

InnovaSea Systems produces innovative, environmentally-focused sustainable technologies and service solutions for the open-ocean aquaculture industry and is developing a fully integrated open-ocean farming platform. The company continues to secure design and engineering talent in its mission to create the next generation of products for the open-ocean fish farming industry.

10.20 Innovations in floating and submersible net technology

Massimo Branzanti, International Product and Business Development Manager, Maccaferri – KikkoNet Division

Using case studies from submersible SeaStations installed offshore the coast of Panama and Hawaii, this paper will demonstrate the benefits of using KikkoNet, a high performance net constructed from PET (polyethylene terephthalate) monofilaments with a double twisted in hexagonal mesh.

10.40 QUESTIONS & ANSWERS

10.50 COFFEE & NETWORKING

SESSION 6 – UNEXPLAINED MORTALITY: IMPROVING SURVIVAL RATES AND INCREASING PROFITS

11.20 Emerging fish viral diseases as a new potential threat in cage culture projects

Jalil Zorriehzakra, Head of Aquatic Animal Health & Diseases Dept., Iranian Fisheries Research Organisation (IFRO)

Fish viral diseases are playing one of the important roles as a limiting factor in fish production and causing heavy mortalities especially in hatcheries and intensive system thus affecting profit negatively. Important diagnosis methods, control and prevention measures of important emerging fish viral diseases will be discussed and some successful experiences and achievements illustrated.

11.40 Stormsafe submersible net pen – solution to 30 years of destructive storm and ice damage

Mike Meeker, President/Owner, Meeker Management Services

Stormsafe, an innovative site tested submersible vertical spar net pen is the solution to virtually all of nature's challenges with proven stability and security in high waves (sustained winds of up to 100 km/hour), and winter storms with moving ice.

12.00 New approach in Diagnosis, Control and Prevention of Viral Nervous Necrosis (VNN) disease as essential threat in cage culture projects

Milad Adel, Aquatic Animal Health and Diseases, Iranian Fisheries Research Organization (IFRO)

VNN has emerged as a major constraint to fish culture and is responsible for catastrophic losses reported worldwide with high mortalities (up to 100 %) particularly in larvae and juvenile fish species in various part of the world including Europe, North America, Asia and Africa. Responsible mariculture, importance of disease, economic lost and Eco-epidemiological approach will be deliberated and a new global approach to control and prevention strategies of VNN in cage culture will be announced.

12.20 QUESTIONS & ANSWERS

12.30 LUNCH & NETWORKING

SESSION 7 – PRODUCT UPDATES

13.45 Product update from Badinotti

13.55 Product update from Gael Force Marine Equipment

SESSION 8 – BUSINESS MANAGEMENT

14.15 Aquaculture livestock Insurance

Cedric Audoir, Broker Aquaculture Stocks, Guian SA

Losing your source of income as a result of a mechanical fault, bad weather, disease or whatever will deprive your business of its livelihood. Given these risks, aquaculture insurance is not something you can afford to ignore. The risk calculated by the insurer will therefore be specific to each business and will naturally depend on many factors such as the type of farming, the species, the experience of the staff and the location amongst other things. A real case study with loss on offshore Seabream farm will show the importance of being covered for the farmers to guarantee the future of their business.

14.35 Apphia - The SEA (Security for marine Environment and Aquaculture) project: Advanced production and processing, food security and sustainable aquaculture

Alessandro A. Zizzari, Team Leader, Apphia

The main objective of the SEA project is to develop an innovative and integrated system aimed to monitor the marine environment and its health, and to secure both the production facilities and the environment where they are deployed. In order to achieve its overall goal, the project also aims to optimize the production and management of production equipment and its impacts. The project proposes methods and tools that enable a sustainable approach to aquaculture development, while fostering the nature protection and conservation of the environment.

14.55 Aquaculture production optimization through enhanced data analytics

Joao Sarraipa, Senior Researcher, UNINNOVA Center

For a long time, fish farmers have relied on their instincts mixed in with basic technology and data tools to make decisions on the performance of their fish farms. By using data analytics algorithms running on datasets in the cloud we can now backup these instinctive decisions with results from computational models which provide the industry with better decision making tools that leads to increased efficiency and profit for the farmers, as well as an environmental benefit through a more sustainable approach to the aquaculture industry.

15.15 Ocean smart mariculture

Paul Holthus, Founding President and CEO, World Ocean Council

The business case for offshore mariculture to collect and share standardised ocean, weather and environmental monitoring data.

15.35 QUESTIONS & ANSWERS

15.45 COFFEE & NETWORKING

SESSION 9 – KNOWLEDGE SHARING – FARMING PRACTICES IN NORTHERN EUROPE V SOUTHERN EUROPE. WHAT COMES FIRST, THE PRODUCT OR THE MARKET?

16.15 CoFASP aquaculture case study: Addressing regional issues in European aquaculture

Giovanna Marino, Institute for Environmental Protection and Research (ISPRA)

The objective of this study was to identify similarities and differences that are limiting growth of Mediterranean sea bass/sea bream industry and Atlantic salmon industry addressing biological life cycle issues, technical and technological issues, market and communication issues and trans-sectorial factors affecting aquaculture development.

16.35 Research and transfer in aquaculture at IRTA

Dolors Furones Nozal, Director, IRTA

IRTA's Aquaculture Program operates from the southern bay of the Ebro River Delta (Tarragona, Spain), traditionally dedicated to fish and shellfish aquaculture. Its research focuses in knowledge and technology transfer to increase the number of species cultured and/or improve the existing processes, both for production and from the food safety points of view.

16.55 QUESTIONS & ANSWERS

17.05 Summary of conference

17.15 Conference close

Technical visits to take place on Friday 8 April for the full day.

BOOKING FORM Book online at www.offshoremariaculture.com or fax back booking form to +44 1329 550192

Date & Venue

The conference will be held on Wednesday & Thursday 6-8 April 2016 at the World Trade Centre, Barcelona, Spain. The conference dinner will be held on 6 April 2016. The third day, 8 April 2016, will include technical visits (limited places available).

Venue Information

World Trade Centre, Moll de Barcelona s/n, East building, 1st Floor, 08039, Barcelona, Spain. Tel +34 93 508 88 88. Special rates for delegates of the Conference have been secured at a few nearby hotels; please visit www.offshoremariaculture.com/europe for more information on how to book your room.

Conference Fee

- Cost per delegate (standard rate) €925* / £775*.
- Group booking discounts are available and recognised educational establishments are entitled to special rates, please contact the organisers for details.
- Fish farmers qualify for special rates, contact the organisers for details

Fee includes:

- Conference attendance on both days
- Full documentation in electronic format
- Lunch and refreshments on both days
- Place at the Conference Dinner
- Technical visits (places are limited)

Booking

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Please register me for the Offshore Mariculture Conference 2016. I will attend the following (NO EXTRA COSTS APPLY):

Conference Dinner (6 April 2016)

Technical visits (8 April 2016)

Fish farmers receive preferential rates to attend.

I qualify for the fish farmer's preferential rates, please contact me with details

Members of supporting associations will receive a 10% discount. I am a member of

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