



# Status Report Q3 2019

September 2019

# Highlights Q3

- Seafood Trainee – new group of trainees
- SFI – application was delivered on 25<sup>th</sup> of September
- AquaCloud 2.0 – update on project
  - Environment
  - Sensor
- EU project – update on project
  - NewTechAqua
  - iFishiENCY
- Events and conference in Q3
  - *THE OCEAN* 2019 conference, Bergen
  - Upcoming Seafood Start-ups, Bergen
  - Executive Seafood Forum, Bergen
  - Hav møter Land, Ålesund





# Knowledge - highlights Q3

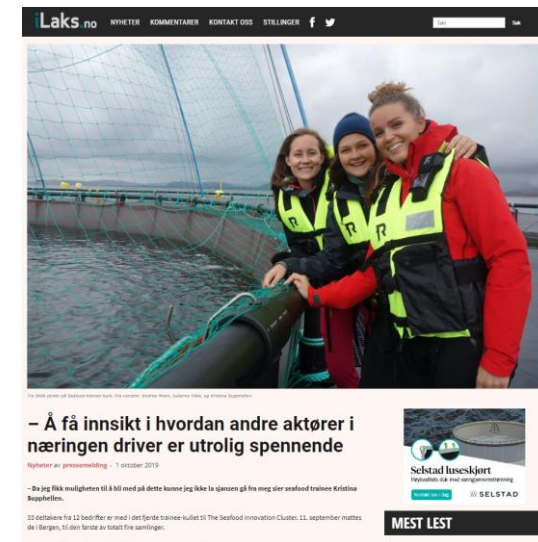


Knowledge



# Seafood Trainee updates

- Seafood Trainee modul #4 was kicked-off in Bergen in September. 33 trainees from 12 different companies are participating in the program which will go on for a year. A new dimension in the program is the partnership we have signed up for with Blue Planet Academy. Blue Planet Academy is a digital learning platform, and the aim is to complement the practical program with professional and theoretical training.
- We are now starting the recruiting for the group #5. The knowledge of the program has increased both for the trainee companies and students and we expect an increase of both participating companies and applicants.
- Media:
  - [DNB-nyheter: “Falt for fisk – slik blir de bedre kjent med sjømatnæringen», 30.09.2019](#)
  - [iLaks: – Å få innsikt i hvordan andre aktører i næringen driver er utrolig spennende, 01.10.2019](#)



# KABIS - ongoing project

- The “KABIS” project continues into its second year. The project is designed to reinforce and target aquaculture-oriented research and higher education in Western Norway, building and strengthening innovation and the transition that is now underway to develop advanced Recirculating Aquaculture Systems (RAS).
- Our cluster members are deeply interested and involved in building and developing cutting edge RAS facilities, and with that comes a demand for increased capacity for development and knowledge transfer from academia to the industry. Academia is, in turn, dependent on clearly stated problem descriptions from the industry to serve the industry in a meaningful way. The feedback from the annual meeting was positive, see Q2 report, and the project is now onboarding a new group of MSc and doctorate students that are looking at RAS related problems.

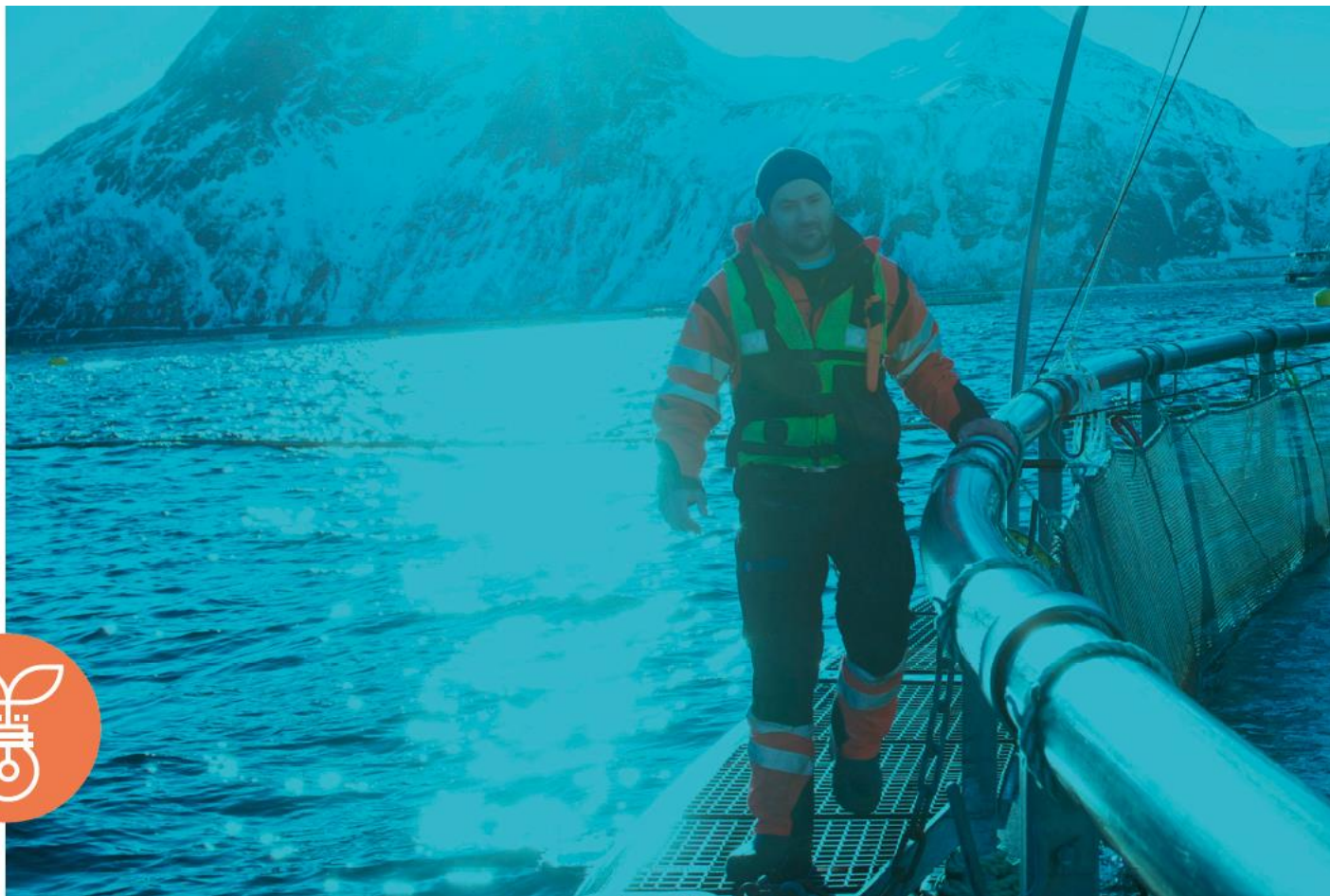
The project is in a phase where a stronger focus on education, building on the financial contribution from the cluster.



# Innovation - highlights Q3



Innovation



# iFishIENT - SFI application delivered

- On September 25<sup>th</sup>, the Cluster coordinated SFI application was delivered.
- Administrated by Norce, HI and UiB and supported by a range of large and small cluster farmers and industry companies.
- The application focuses on understand how the fish reacts to its surroundings and changes in those. This is not consistently understood to day and is a weak link in our effort to achieve knowledge based decisions and management locally and across production areas.
- The Research Council of Norway has until medio June 2020 to evaluate and reply to our application. We have a long winter and spring ahead of us!



# iFishENCi - ongoing EU project I



- iFishENCi is an ongoing project funded with 73mNOK by the EU program Horizon2020, the project is one year into its four years, ending in October 2022.
- The project has the aim to deliver on innovation strategy and cluster members needs for better environmental monitoring and enhanced situational awareness and knowledge-based management. The project also addresses the industry wide need for new feed raw materials and targets circular principles and zero waste by qualifying new and sustainable organic value chains for flows and by-product valuation.
- The cluster plays a role as Innovation Champion. The role is central in coordinating the exploitation of findings, making sure that important knowledge and methods are presented to the operative sector of the industry.
- The project innovations will provide important new assets to the consortia SMEs, fish farmers, feed producers and technology suppliers in the aquaculture sector. Assets will be maximized through a comprehensive sustainability assessment and commitment with the sector, regulators and consumers.

Read more at <http://ifishienci.eu/>

This project has received funding from the European Union's Horizon 2020 research and innovation program under grant agreement No 818036.

This project has received funding from the European Union's Horizon 2020 research and innovation program under grant agreement No 862658.





# NewTechAqua - ongoing EU project II



- NewTechAqua is in its first period with a formal start up in December this year.
- The NewTechAqua project will address advanced technologies, new tools for precision fish farming concepts to innovate, support and improve the whole value chain of European aquaculture. Standard and organic feed formulations will be developed according to the circular economy principles, whereas new feeding strategies, farming systems and genetic selection will improve health and welfare of farmed aquatic animals. Precision fish farming technologies and big data analyses will enhance farm management practices and support information-based decisions.
- Innovative microbiome applications will be implemented and utilized to improve farmed fish microbiomes for better health and productivity. The improvement in reproduction cycle economically important species will increase the European aquaculture production and diversification.
- NewTechAqua project will also contribute to increase available, accessible, affordable and nutritious food, developing new products, increasing shelf life through innovative technologies and new packaging systems.

This project has received funding from the European Union's Horizon 2020 research and innovation program under grant agreement No 862658.

# AquaCloud 2.0 - ongoing project

- As in the society at large, digitalisation in the aquaculture sector is picking up speed, as does the cooperative mindset in the industry. Meeting the industry need for knowledge based management and quicker learning, AquaCloud is now in its third year.
- Continuously growing and developing, the consortium recently welcomed a new company, Salmar, to the group of data suppliers for the project. Salmar is the eighth member of the consortium and their entry adds a considerable momentum to the project, improving data coverage in important areas as well.
- The project continues to focus on standardisation on environmental data, health and welfare and open standard for sensor, inviting important stakeholders to join us in this important work. See more detailed information on the following pages.

Read more on [www.aquacloud.ai](http://www.aquacloud.ai)



# AquaCloud 2.0 - Environmental data

- One of the issues the industry, with academia and analysts, is the multitude of methods and places to gather environmental data. This is an field with a major need for standardisation.
- We have chosen to solve this through revising a standard, NS9417, a standard that is mainly focused on nomenclature and standardised conversions, but also gives recommendations on which information should be sampled where in the cage.
- While this is a work that takes its time, we are set up to work with subgroups focusing on individual reviews or additions.
- The cluster is dedicated to work specifically with the environmental data and invites all stakeholders, especially fish farmers to join the review board or state their need and opinions.

Read more on [www.aquacloud.ai](http://www.aquacloud.ai)



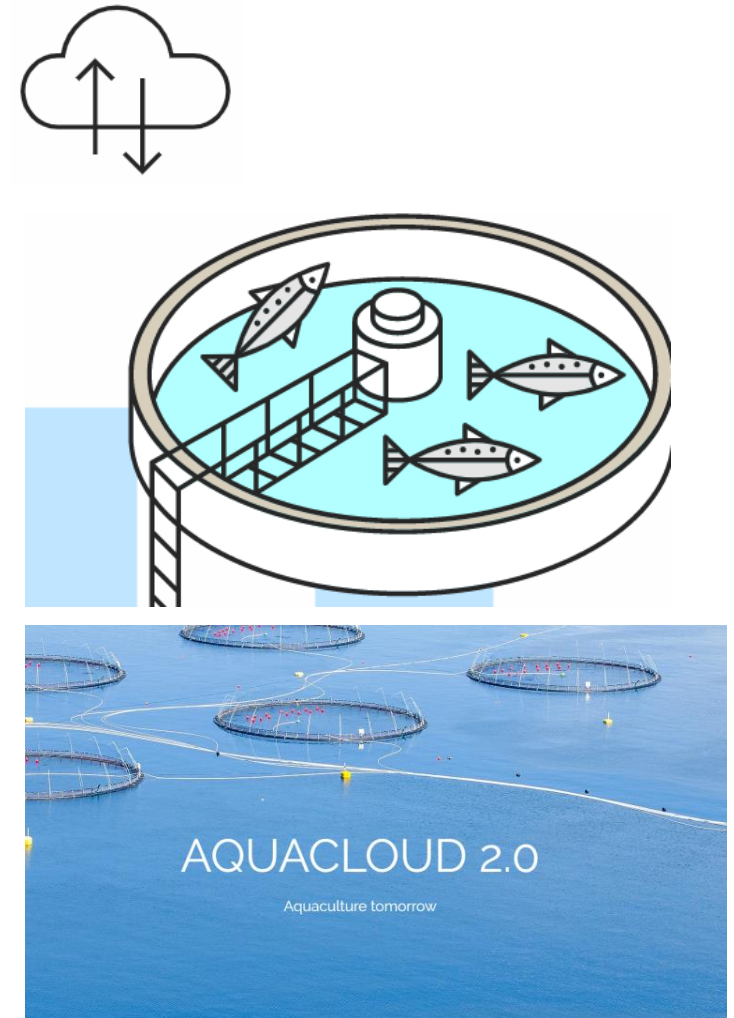


# AquaCloud 2.0 - Sensor data

- Another issue related to data harvesting is how sensor data is gathered, shared and moved into decision-making processes.
- Sensor data in the industry today is at best locked away in a proprietary system, or, at worst, discarded. This data is believed to hold the answers to our current challenges, and so securing it into a well-described semantic data model is paramount to solving today's and tomorrow's problems.
- The amount of sensors used today is growing, and the amount of data possible to gather even more so. The system that is going to store and communicate all this, must be able to grow organically and with little cost to the farmer.
- The sensor standard will secure that any system built upon it will scale with the growing requirements in the industry.

We invite shareholders to join us in this important work.

Read more on [www.aquacloud.ai](http://www.aquacloud.ai)



# OINC - ongoing project



- Ocean Innovation Norwegian Catapult (OINC) is growing with a new 12-unit RAS facility under construction at the Innovation hotspot at Marineholmen in Bergen. The SIVA financed initiative focuses on prototyping and accelerated testing. The company works nationally/internationally, in cooperation with companies and acts as a “one-stop-shop” for companies with different needs for prototyping and testing
- Prototyping is expensive and complicated process, and ONIC is tooled and designed to assist companies in simplifying prototyping and testing in order to shorten time to market, saving money and accelerate the implementation of new concepts.
- The Cluster is a 15% owner in the catapult. This based on the use of AquaCloud project as a tool to facilitate more fundamental aspects of digitalization, such as standardization efforts, coordination of technological efforts towards open systems (do not confuse with open access to data) removing barriers for new suppliers and new concepts.

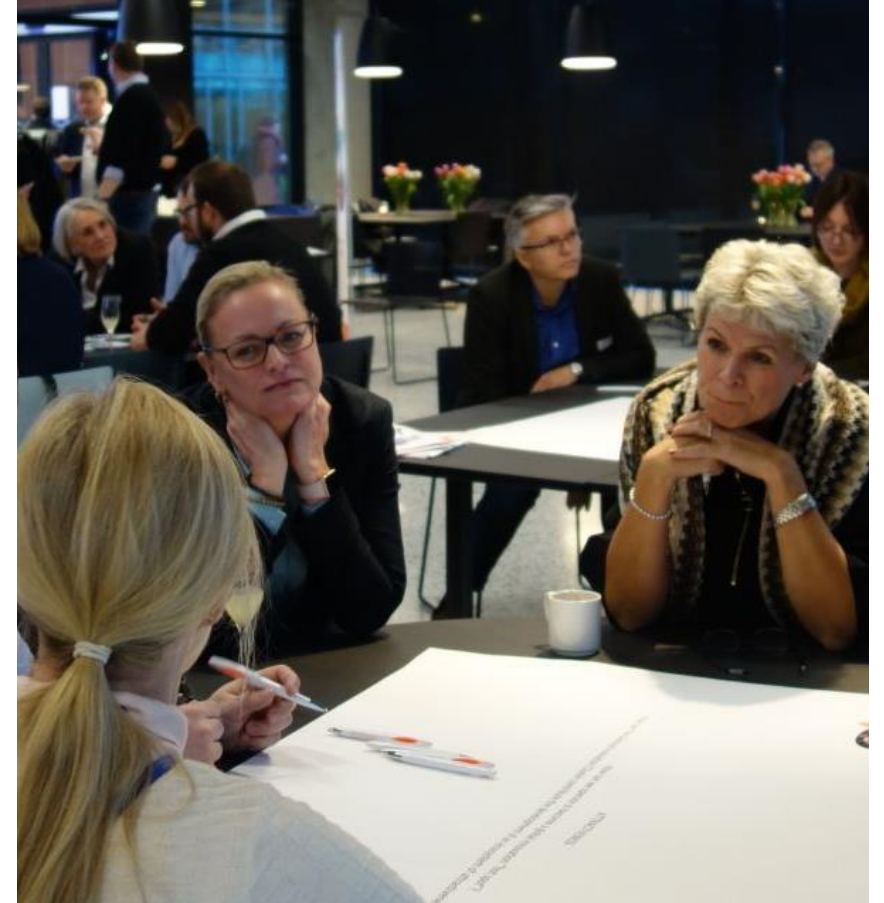
More information: <https://www.oceaninnovation.no>



# Resource group Innovation

- Our Resource group Innovation is an important tool to help the cluster define which areas to focus on in our work.
- In the resource group we have 15 industry specialist from research and development companies, academia and all sectors of the industry, suppliers and fish farmers alike.
- The group meets four times a year discussing our direction, focus and choke points that hamper industry growth and impact on innovation, environment and sustainable growth.
- Read more about our amazing resource groups [here](#).

The resource groups has contributed with valuable input to the strategy and action plans for 2020.





# Entrepreneurship & Commercialization - highlights Q3



Entrepreneurship  
& Commercialization



Norwegian Centres of Expertise  
**NCE Seafood**  
Innovation Cluster

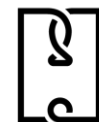
# Upcoming Seafood Start-ups

- For the first time, a selection of start-ups from NCE Seafood Innovation Cluster was pitching their innovative seafood solutions to an expert-panel. The expert-panel gave the start-ups valuable feedback and recommendations about challenges that the individual start-up companies was faced with at this stage.
- «Upcoming Seafood Start-ups» is a meeting arena where entrepreneurs in the Cluster receive feedback from a multidisciplinary panel with relevant competence within entrepreneurship, commercialization, business development and extensive seafood industry experience.
- **Expert-panel:**
  - Ingrid Kylstad - Katapult Ocean, Maria Handeland Bøthun – DNB, Hilde Indresøvdde – VIS, Mona Biering - Connect Vest, Ketil Christensen – Cargill, Einar Wathne - Bioakva
  - Moderator: Nina Stangeland, NCE Seafood Innovation
- A selection of 5 start-ups were presenting their innovation stories:
  - [W-Sence](#)
  - [Algaepro](#)
  - [JET Seafood](#)
  - Maritime Technology Innovation
  - [Scantrol Deep Vision](#)



# HATCH returns to Bergen

- Third cohort of HATCH is visiting Bergen for “Industry week” of the program in mid October. The Cluster will facilitate interaction with the industry.
- 13 international companies are the third cohort of the HATCH accelerator program. More information: <https://www.hatch.blue/>
- Two interactive events are planned with our partners and members
- *Meet the industry*, the cluster members present themselves and some challenge they faces
  - Time: 21th of October at 9.00-15.00, Place: DNB, Solheimsviken, Open event
- *Pitching Day and 1:1 Meetings*, the visiting start-ups will pitch their business proposes before the audience. 1:1 meetings will be arranged after with partners and members of the cluster.
  - **Pitching Day**
    - Time: 22th of October at 9.00-12.00 Place: DNB, Solheimsviken, Open event  
(Lunch 11.50-12.30),
  - **1:1 Meetings**
    - Time: 22th of October at 12.30-15.00
    - Place: DNB, Solheimsviken



Hatch





# “Ready to raise capital?” - upcoming workshop

- The Cluster is initiating a new program for start-ups called “Are you ready to raise capital?”. The objective is to increase start-up competence in raising capital and actively work to ensure start-up investment by using our new Seafood Innovation Portal.
- All Cluster start-up companies will be invited to participate. 10 will be selected to participate in the program with a work-shop November 8<sup>th</sup> followed by 1:1 meetings after 4 weeks and after 3 months.



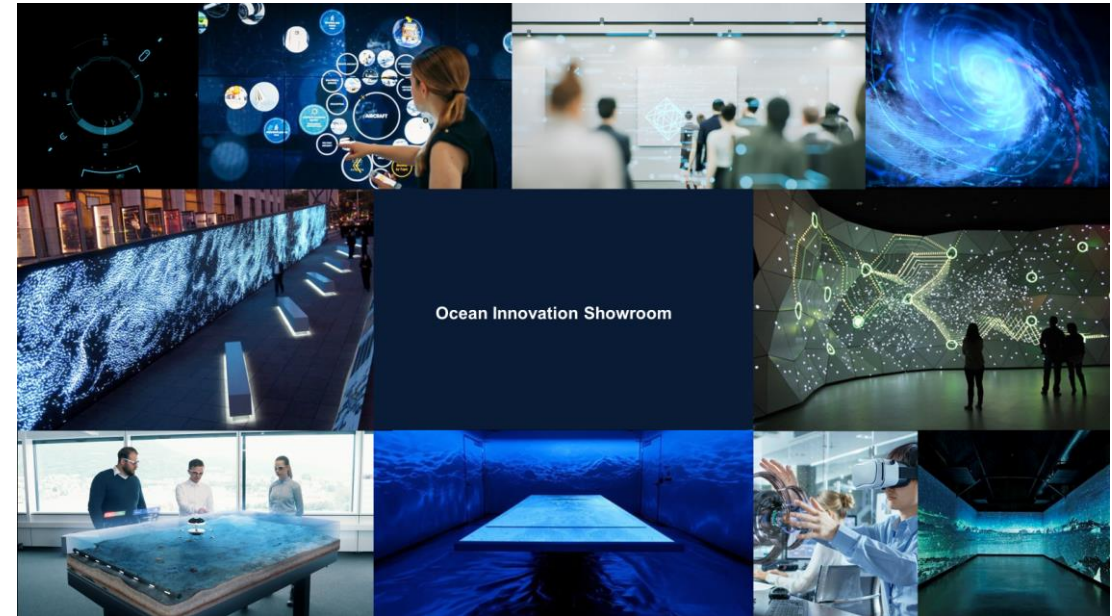
# Cluster Management, projects and events in Q3



Enabling sustainable  
seafood growth

# Ocean Innovation Showroom - ongoing project

- On behalf of a broad range of partners, the Cluster is running an ongoing feasibility study for a national showroom for solutions in the ocean industries.
- The Ocean Innovation Showroom will contribute to increase business opportunities in the ocean industries, increase export of products, technologies and services, facilitate delegations and visitors and profile Norway as an ocean nation.





# Norwegian Cognitive Senter - Attracting IT talent to the seafood industry

- The seafood sector is finding it consistently challenging to meet its ever growing needs for IT competence.
- In an effort to make the seafood industry more attractive for this much sought after resource, our cluster joined several other industry clusters, the City of Bergen, Bergen Chamber of Commerce and Industry, VIS Innovation, Helse Vest and several of the academic institutions in Bergen to establish a national center for cognitive technologies, with IBM as the technology partner.

This is a huge undertaking and the project is progressing as planned.



# Hunting talent

- One of our job is to hunt for talent and channelling this towards our members and their needs. We have cooperated and helped several companies to find their feet in Norway, either through close cooperation or as their point of contact.
- We are proud of our role in aiding, supporting and inspiring companies, hailing from abroad, to join the cluster and set up shop focusing on major industry issues. Two of those, [Aquabyte](#) and [W-sense](#), have established themselves in Bergen and the third one, [Innovasea Akvakultur](#), came about as an acquisition of Nortek Akvakultur by a US based [InnovaSea](#).
- In other cases we contribute to [catapults](#), [accelerators](#) or actively contribute to international [conferences](#) and summits to learn, inspire and put the Seafood industry on the headliner.



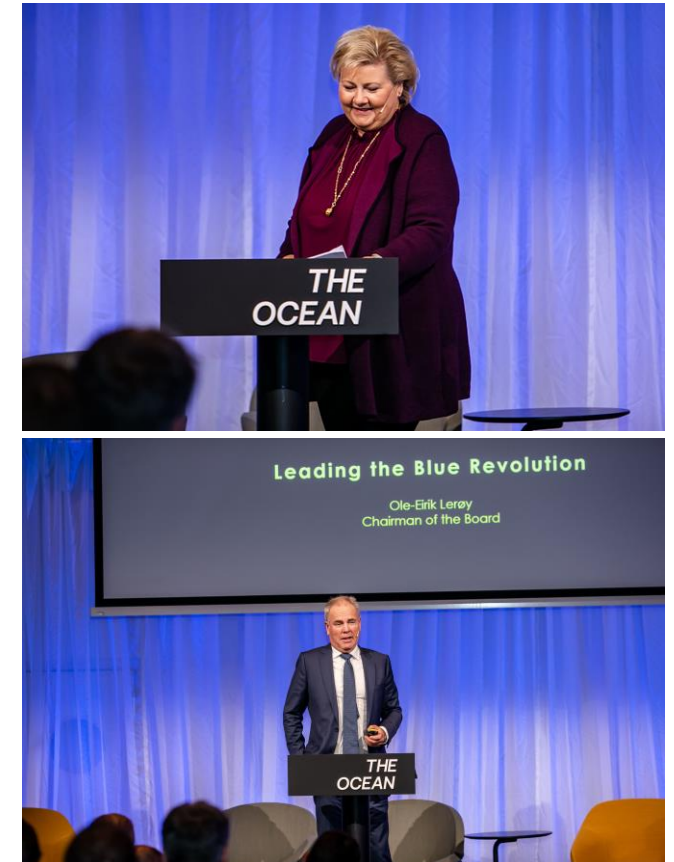
# THE OCEAN - Successful launch of new conference

- THE OCEAN was arranged for the first time in Bergen, September 17<sup>th</sup>, based on an initiative from the ocean industries, academia and public agencies for a new arena to discover, connect and collaborate across ocean sectors.
- The event was opened by Prime Minister Erna Solberg. Other keynote speakers were Elisabeth Grieg, CEO, Grieg International, Ole Eirik Lerøy, Chairman of the Board, MOWI and Beate Myking, Senior Vice President, Equinor
- 430 people attended the event that was hosted by Arne Hjeltne.

## Organizing partners



**THE  
OCEAN  
2019**

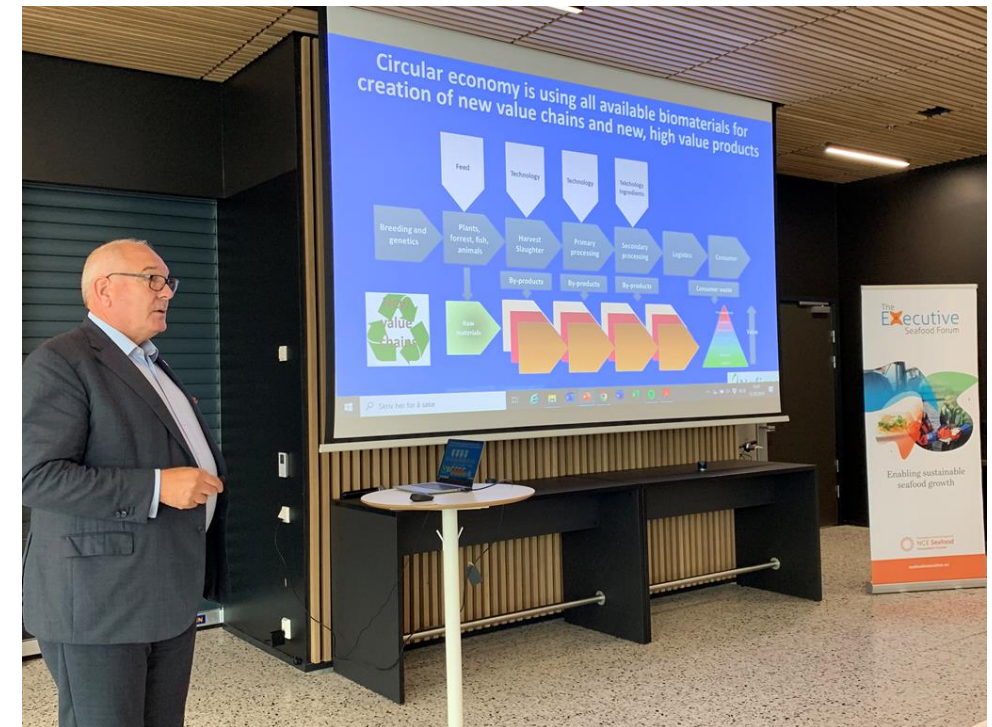




# The Executive Seafood Forum



- The Executive Seafood Forum was held for the third time September 12<sup>th</sup> with 17 partners attending, in addition to invited speakers from our members and collaborators of the Cluster.
- Circular economy was topic of the day – with general considerations on circular economy and opportunities for the seafood industry in particular.



# “Land møter Hav” (Land meet Ocean)

- Together with other leading Norwegian Clusters, NCE Blue Legasea, NCE Heidner Biocluster and Biotech North we arrange the second conference “Land møter Hav” in Ålesund the 23th of september.
- The conference focus was to gather blue and green industry together for dialog and inspiration on how the work together to develop sustainable production of our resources. The main topic that was addressed was bioeconomy and digitalization. In addition, to industry project from blue and green sector.
- The conference was fully booked with a dedicated audience. The day ended with workshops that resulted in new contacts between the industry, good interaction and concrete ideas for further project between the clusters.



# New members of the Cluster in Q3

## Start-ups:

- Aquamedic - Control of diseases in aquaculture
- Blue Lice - Sea lice prevention
- Dynaspace - Satelital images in shrimps production
- Wsense (Italia) - Monitoring and communication systems





# Partners and Members 30.09.2019

## Industry partners:



## R&D Partners:



## Members:



## Start-ups:



## Collaborators:



## Financial partners:



