



project

26.3.2021

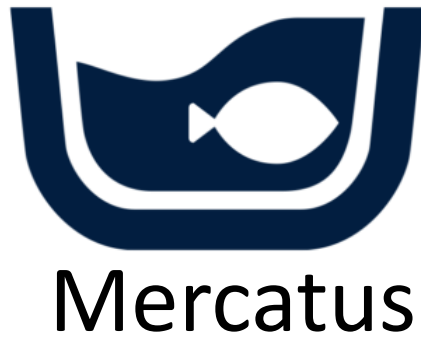
“Access to high-quality, standardized nonfinancial data remains a critical bottleneck.

Quality data throughout the value chain is important to inform decision making, both within companies and for investors assessing the sustainability of individual companies and sectors”

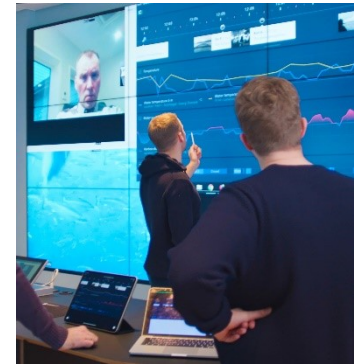


AquaCloud
By NCE Seafood Innovation

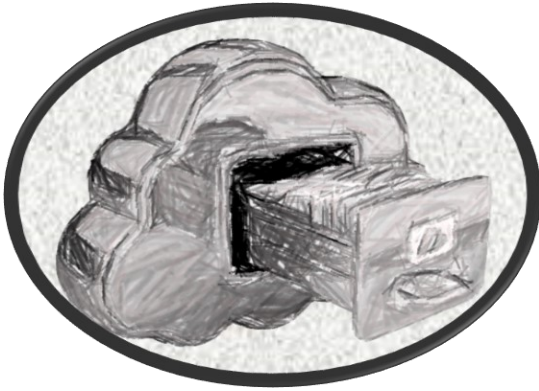
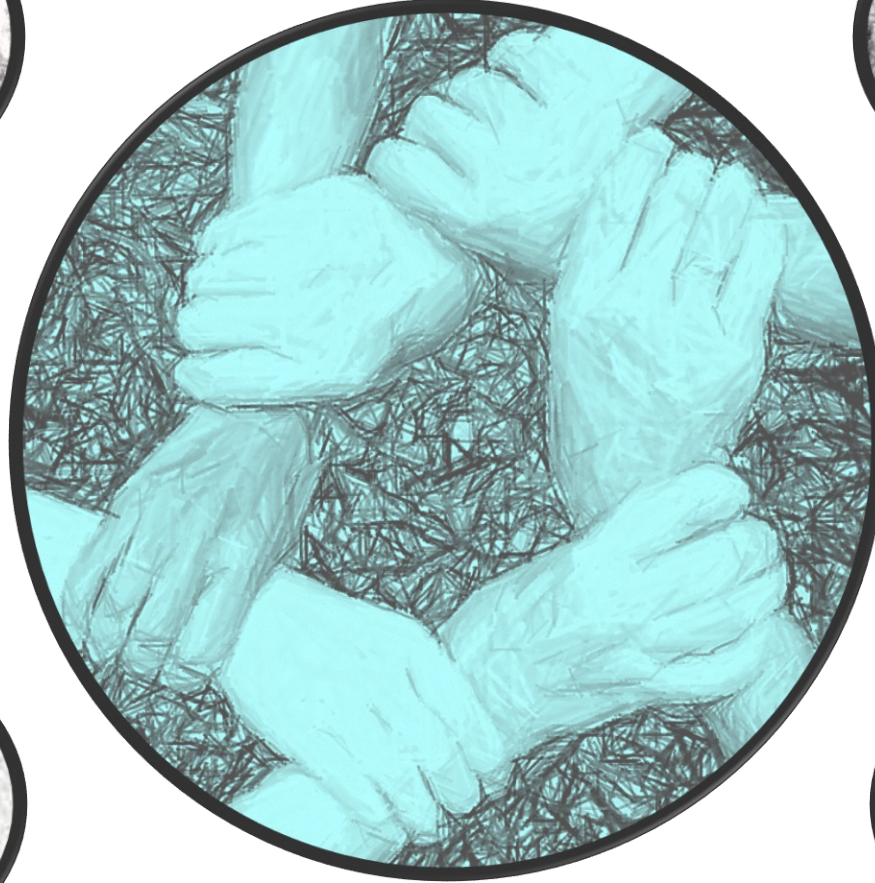
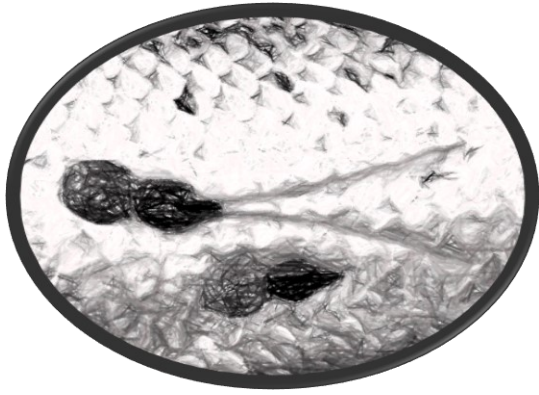
Platforms for data aggregation and analysis



Open Aquaculture Platform



AquaCloud
By NCE Seafood Innovation



AquaCloud
By NCE Seafood Innovation

AquaCloud at a glance

- Initiated to solve common challenges in order to create sustainable growth for the aquaculture industry
- The initial scope was to use data and advanced analytics to identify where sea lice outbreaks were probable. Unfortunately, data quality was insufficient to reach the ambitious goals at the time
- Based on these initial findings, AquaCloud launched several workflows addressing standardization needs in the industry:
 - Sensor data – developing an open internet of things (IoT) based standard allowing equal access to aquaculture sensors and systems
 - Environmental monitoring – reviewing the environmental section of NS9417 standard on terminology and documentation
 - Health and welfare – establishing common standards for areas such as mortality causes
- At the core of AquaCloud is the data platform which receives continuous updates from participating companies and represents a unique repository of high-resolution data from their farming operations
- While observing obvious legal and competitive limitations, selected datasets will be shared both between participants and even made generally available to third parties for innovation
- Operating as a standalone company in 2021, AquaCloud has evolved to become a hub of industry activities, cooperating with partners in various industry sectors
- AquaCloud is in the process of onboarding multiple new contributors with the aim of making the infrastructure with standardized approaches, governance and datasets available for the industry at large



Steering Committee



AquaCloud

Data platform

Sensor data

Environmental

Fish health



AquaCloud
By NCE Seafood Innovation

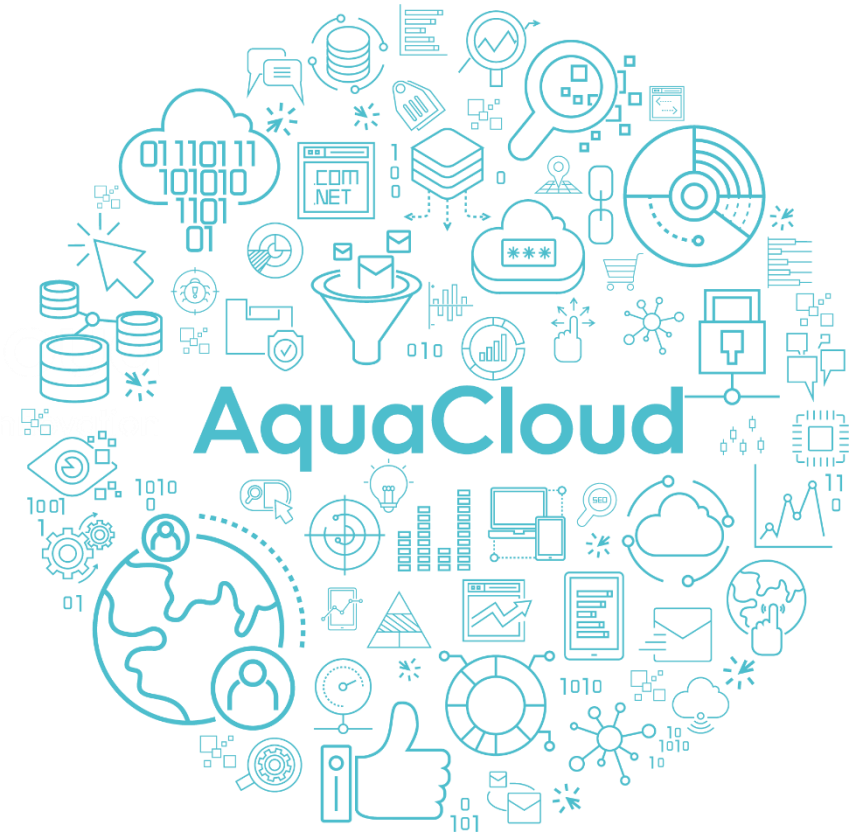
12 out of 13 areas

Approximately 130 000

4 000 fish cages

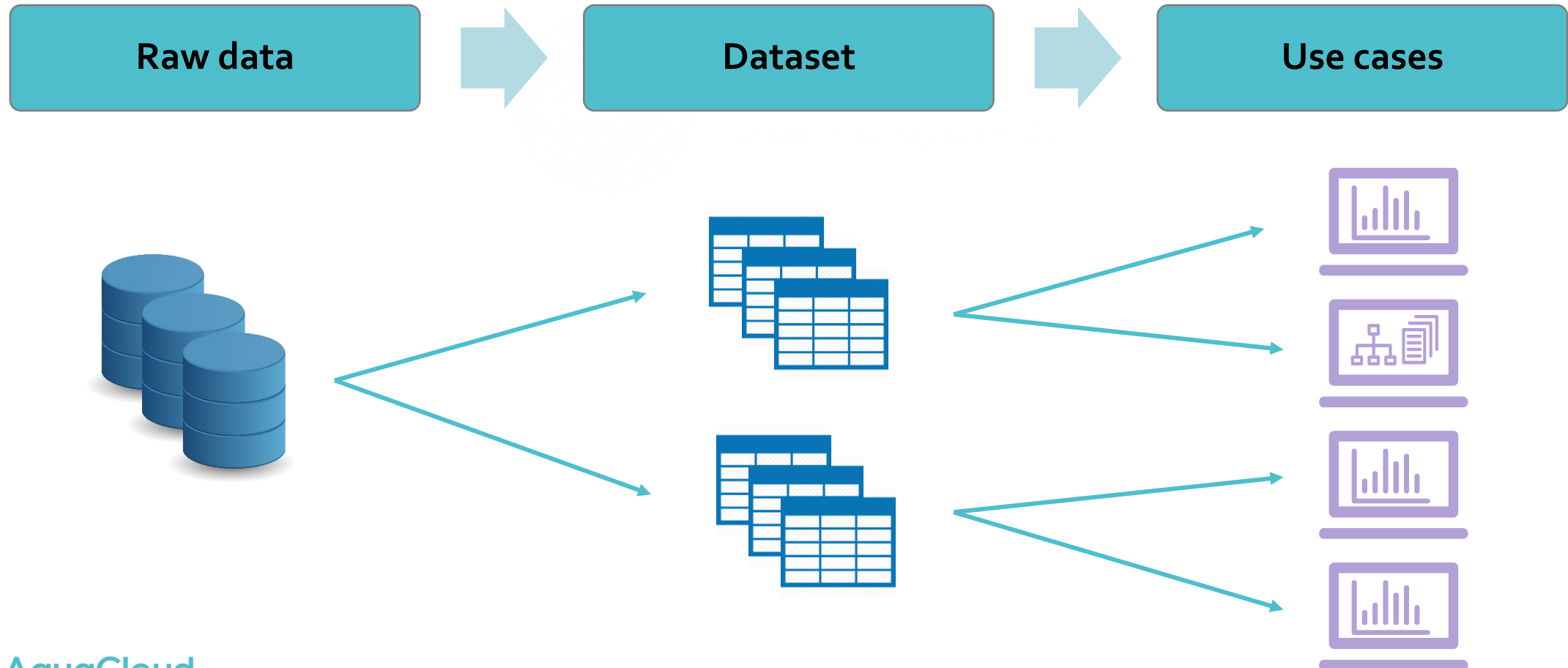
1 900 fish cages

7



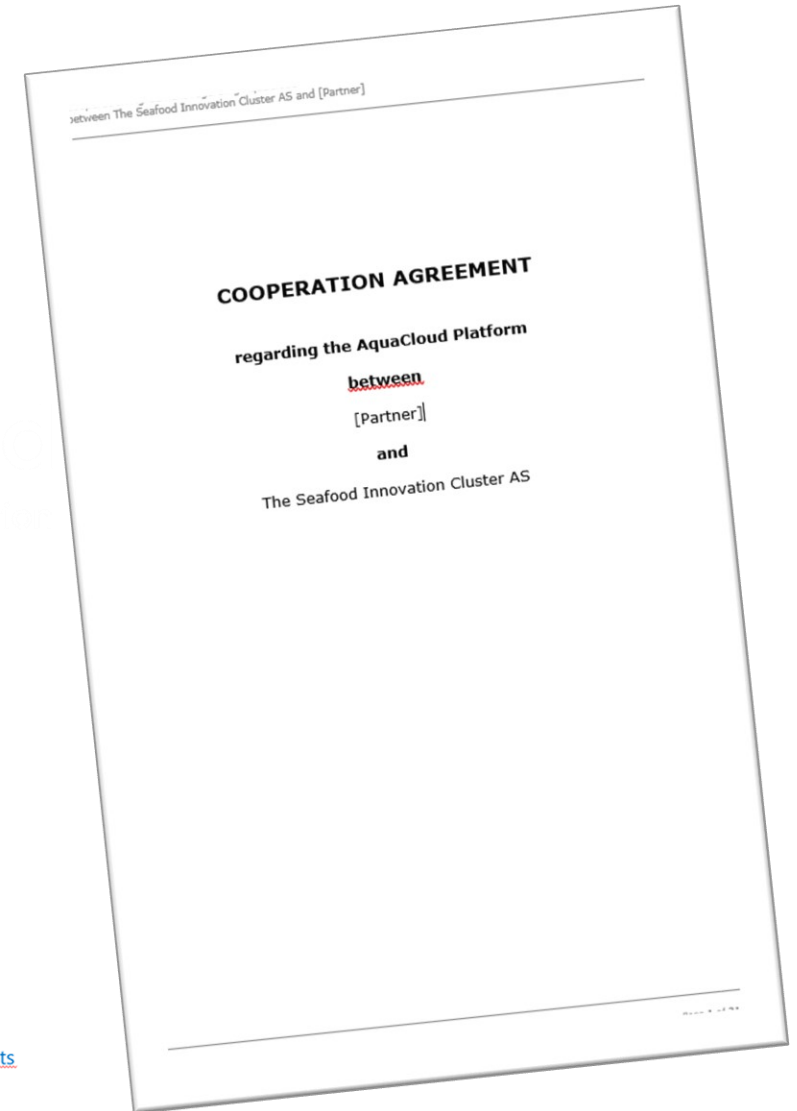
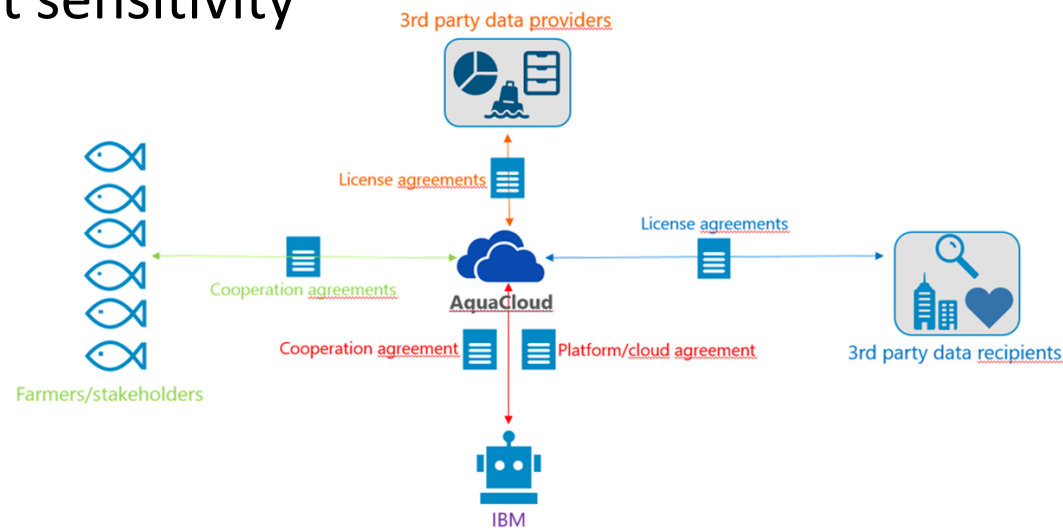
AquaCloud
By NCE Seafood Innovation

Sharing production data from farmers



Legal framework

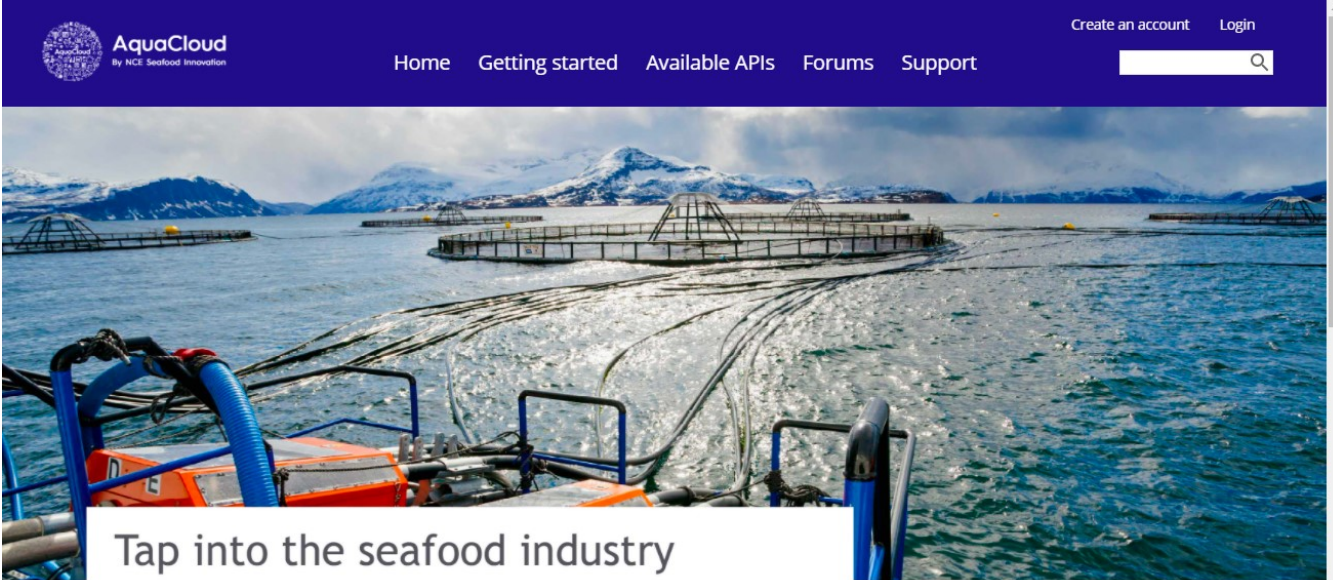
- Data ownership and rights
- Governance
- Confidentiality
- Anti trust regulation
- Stock market sensitivity



AquaCloud
By NCE Seafood Innovation

Data sharing

- APIs released through our Developer Portal
- Initial release will focus on REST APIs
- Planned: CSV/files
- Different (commercial) plans will be available



AquaCloud
By NCE Seafood Innovation

Create an account Login

Home Getting started Available APIs Forums Support

Tap into the seafood industry

Large amounts of data about the fish farming industry along the coast of Norway are stored in AquaCloud's data platform. Through an industry collaboration, based standardization and carefully planned governance structure, we're able to provide you datasets from 4000 fish cages.

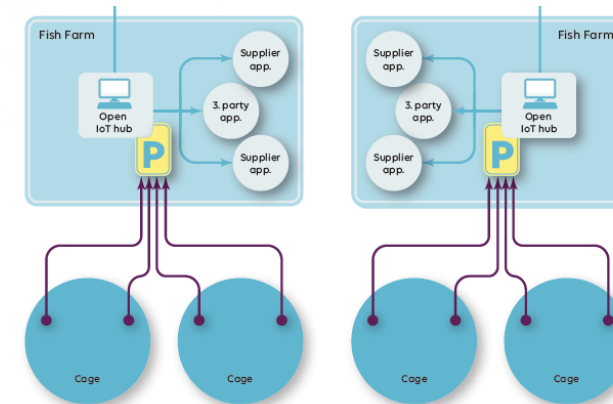
[Explore available APIs](#)

Together for innovation

Safe sharing for innovation

Sensor Data Standard launched in September 2020

- Initial scope is focusing on sea based environmental sensors and feeding
 - Sensor Types
 - Semantic Data Model
 - Security
 - Overall System Infrastructure
 - IoT Hub API and Infrastructure
 - Cloud API and Infrastructure



- Planning expansion to cover lights and land-based sensors
- Advocating and supporting industry adoption of the standard

Fish Health Data

- Working with Norwegian University of Life Sciences, a pre-study on **mortality categories and coding system** was completed in July. Initial proposal of complete coding system is planned during first part of 2021
- Supporting the review process of **NS 9417:2012 (Unambiguous terminology and methods for documentation of production)**, same as the *Environmental* workflow in the project
- Starting the initial phases of projects regarding fish group identification and traceability



Eco system

AKVAGROUP™ **SCALEAQ**



INNOVASEA



AANDERAA
a xylem brand



piscada

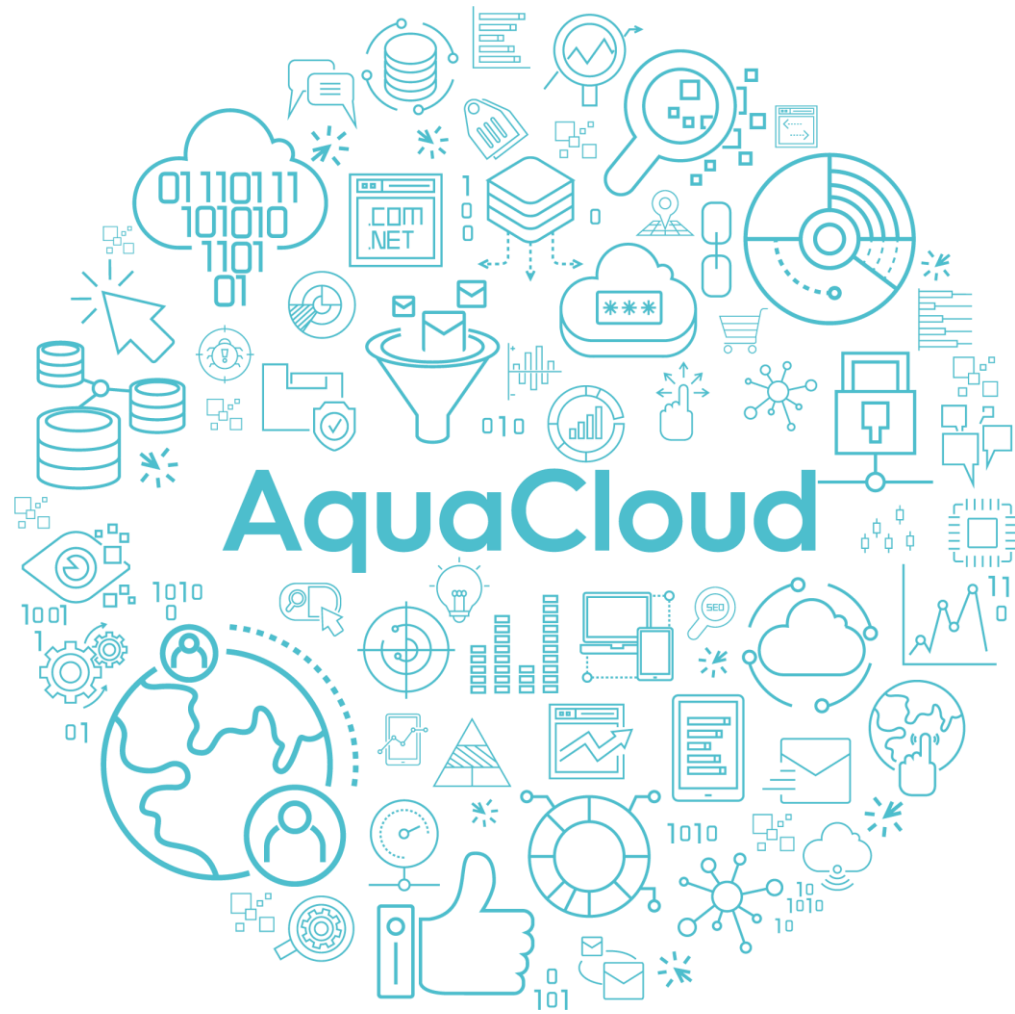
Manolin

Fishency
Innovation

Aquabyte



(Examples of current and possible partners)



Thank you!

By NCE Seafood Innovation