
INCJ to Invest in Umitron a Start-up Utilizing ICT to Develop Sustainable Aquaculture

- Development of fish school analysis system will reduce production costs and tackle labor shortages
- Use of local data of cage and satellite data will optimize amount and timing of feeding
- Contribute to the development of sustainable aquaculture by monitoring aquatic environments and improving yields

Tokyo, July 3, 2018—Innovation Network Corporation of Japan (INCJ) announced today its decision to invest in Umitron Pte. Ltd. (Umitron). It decided to provide support of up to 800 million yen for advancing new business development, and the investment was completed on the same amount.

Umitron is a company established in 2016. It aims to vastly improve aquaculture yields by providing aquaculture businesses with information on optimal timing and amounts in regard to feeding gained through analysis of satellite data and data from sensors placed in aquaculture cages. It also uses this information to quickly identify environmental events such as red tides and implement swift countermeasures.

As a result of the increasing global population and health booms in developing countries, worldwide demand for fishery resources as a source of high-quality protein is growing. As natural resources are limited, the volume of cultivated aquatic produce has grown particularly rapidly and in 2015, the volume of fish provided by aquaculture exceeded the volume caught in the wild. Furthermore, demand for cultivated aquatic produce from overseas has been growing in recent years and exports are increasing. However, aquaculture businesses face serious operational issues such as price fluctuations for fish as a product, sudden rises in the cost of feed, labor shortages, and red tides.

Umitron first developed a fish school analysis system and is now engaged in verification testing aimed at promoting this system. Previously, aquaculture businesses carried out feeding by hand or using machines equipped with timers, but each of these methods had issues in terms of labor requirements and over feeding. The fish school analysis system developed by Umitron uses sensors placed in aquaculture cages to monitor fish behavior, and feeding can be handled by remote control. Furthermore, satellite data is used to gauge

sea surface temperatures and phytoplankton distribution, and predict environmental events such as red tides, and this can be combined with local data from the cages to prevent damage to fish stocks before it occurs.

By promoting its fish school analysis system, Umitron intends to obtain even greater amounts of local data and it will accumulate and analyze satellite data, fish behavioral and breeding data from cages to create a revolutionary aquaculture platform that maximizes the added-value of fish through the cultivation of high-quality fish.

INCJ decided to invest in Umitron based on the expectation that it will engage in solving social problems in the aquaculture industry and contribute to regional revitalization.

In addition to financial support, INCJ will also provide business support including participating in Umitron's management through the appointment of outside directors.

About Umitron Pte. Ltd.

Established: April 2016

Headquarters: Singapore (Japan headquarters: Minato Ward, Tokyo)

Representative: Masahiko Yamada

Business outline: Provides data services for aquaculture businesses

About Innovation Network Corporation of Japan (INCJ)

INCJ was established in July 2009 as a public-private investment company that provides financial, technological and management support for next-generation businesses. INCJ specifically supports those projects that combine technologies and varied expertise across industries and materialize open innovation. INCJ has the capacity to invest up to JPY2 trillion (approx. US\$20 billion).

INCJ's management team is drawn from the private sector with diverse experience in investment, technologies and management. Through its Innovation Network Committee, INCJ assesses investment opportunities that contribute to industrial innovation in Japan in line with criteria set by the government.

<Press Contacts>

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Overview of new investment decision

1. Target: Umitron Pte. Ltd.

Established : April 2016

Headquarters : Singapore

Representative : Masahiko Yamada

Business outline: Provides data services for aquaculture businesses

2. Overview of investment

Authorized investment : JPY 800 million (maximum)

Amount invested : JPY 800 million

Co-investors : D4V (Design for Ventures) and other investors

Shareholding ratio : Not disclosed

Investment structure outline: see appendix

3. Significance of investment

Supporting social needs:

- As the global population grows and food shortage develop, the importance of aquaculture as a means of creating protein will increase.
- Remote control feeding systems will contribute to solving social problems such as rising feed costs and labor shortages.
- The use of satellite and local data will help tackle environmental issues through methods such as predicting red tides.

Growth potential:

- Overseas demand for aquaculture produce is growing and exports of Japanese seriola (Buri, Hamachi) and seabream are increasing.
- While the aquaculture industry is growing, issues such as rising feeding costs and labor shortages have been revealed
- The application of IoT and data services to the aquaculture industry will contribute to increased production efficiency and quality, thereby contributing to the sustainable development of the global industry.

Innovation:

- Umitron is developing an aquaculture business platform by bringing together personnel with a wide range of experience, including in satellite development, cloud computing, and web application development, from fields such as computer science, space engineering, oceanology, nutritional science, and bioinformatics.

Investment target: UMITRON PTE. LTD.

Business outline: Develops and provides IoT feeding systems for aquaculture businesses

Authorized investment: JPY 800 million (maximum)

Date of announcement: July 3, 2018



Investment/
management
support

Other corporate investors

Investment/
management
support

Individual investors

Investment

umitron.

Install sustainable aquaculture on earth

- A start-up company that applies IoT, satellite remote sensing, and AI technology to aquaculture to solve food supply and environmental issues facing humanity in the future
- It provides a service that uses fish school analysis to optimize feeding costs through its UmiGarden® IoT feed management system





Service
provision



Cooperation/
partnerships

Major fish producers

Aquaculture producers
in each region

Aquaculture-related
companies

Administration and
municipal
governments

Universities and
research institutes in
Japan and overseas

- Uses technology such as IoT, AI, satellite-related technology, and satellite data to solve social problems affecting aquaculture, including rising feed costs, environmental pollution from over feeding, and labor shortages and aging populations in Japan.
- Contributes to the strengthening of the Japanese aquaculture industry and regional revitalization by increasing aquaculture yields and improving producers' working environments and incomes.
- Accumulates global aquaculture expertise through partnerships that transcend the frameworks of industries in Japan and overseas, and becomes a global leading aquatech start-up from Japan