

August 8<sup>th</sup>, 2017

Sojitz Corporation

IoT and AI Verification Tests for Sojitz Tuna Farm Takashima's Aquaculture  
Business

- Memorandum Concluded with NTT DOCOMO and Information Services  
International-Dentsu -

Sojitz Corporation has signed a memorandum with NTT DOCOMO, INC. (“NTT DOCOMO”) and Information Services International-Dentsu, Ltd. (“ISID”) through Sojitz’s subsidiary Sojitz Tuna Farm Takashima (“STFT”), to conduct tests verifying the use of IoT and AI in improving efficiency within their tuna aquaculture business. They will begin testing feed optimization with NTT DOCOMO and automated fish-counting technologies with ISID.

STFT buys juvenile tuna, shipping them as adults after 3 years of maturation in an ocean pen. As conditions inside the pen can change dramatically by the day, STFT must determine feeding amounts, methods, and timing accordingly. They currently do this based on experience alone, and this has led STFT to seek ways of raising accuracy for these aspects of the feeding process.

Now with NTT DOCOMO’s assistance, STFT will introduce sensors equipped with IoT technology to obtain readings on water temperature and other data, visualize that data using an application, and utilize AI to fully analyze correlation and relationships between data. In this way, they aim to figure out the optimal conditions for raising tuna in the wild, optimize feed amounts and timing, and improve the pen environment.

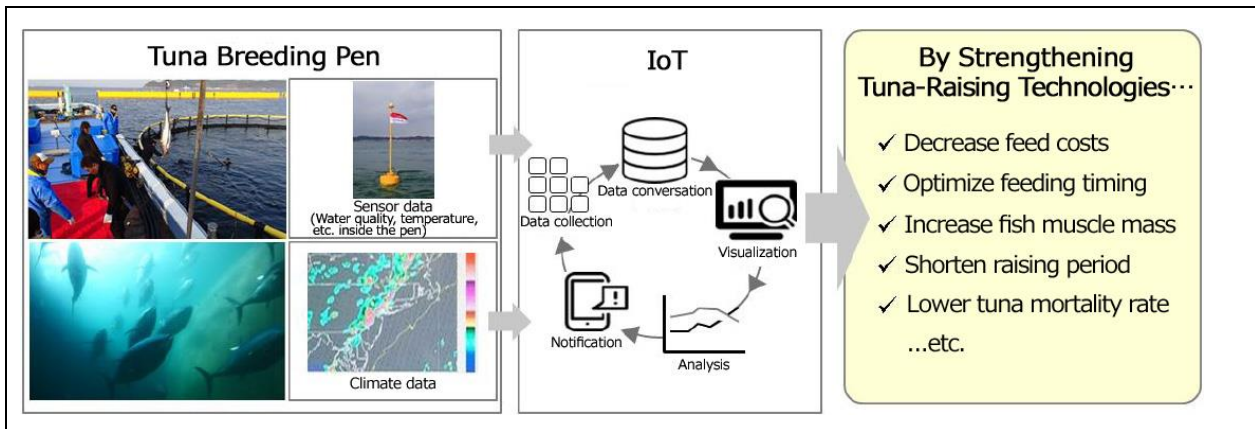
Additionally, STFT will work with ISID to more efficiently and accurately ascertain the number of fish present at the farm, creating an automated fish counting system using deep learning-based image analysis technology. STFT needs to know the number of fish in order to decide feeding amounts, raising methods, shipment loads, and shipment timing, as well as raise productivity, cut costs, and estimate sales. Presently, STFT relies on video cameras to count the fish, and they

have been struggling with how to reduce labor and raise accuracy. STFT hopes this automated counting technology will solve both of these problems.

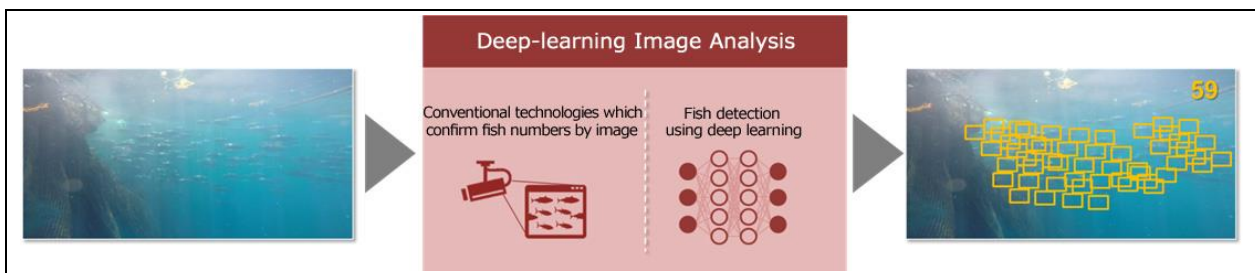
Through these verification tests, Sojitz aims to better visualize STFT's tuna-raising expertise through the use of IoT and AI, developing systems with NTT DOCOMO and ISID to raise efficiency of their aquaculture business and contribute to the advancement of Japan's aquaculture industry.

## Related Information

[Concept behind food optimization]



[Automated Fish Counter – Concept Image]



[NTT DOCOMO, INC. – Company Overview]

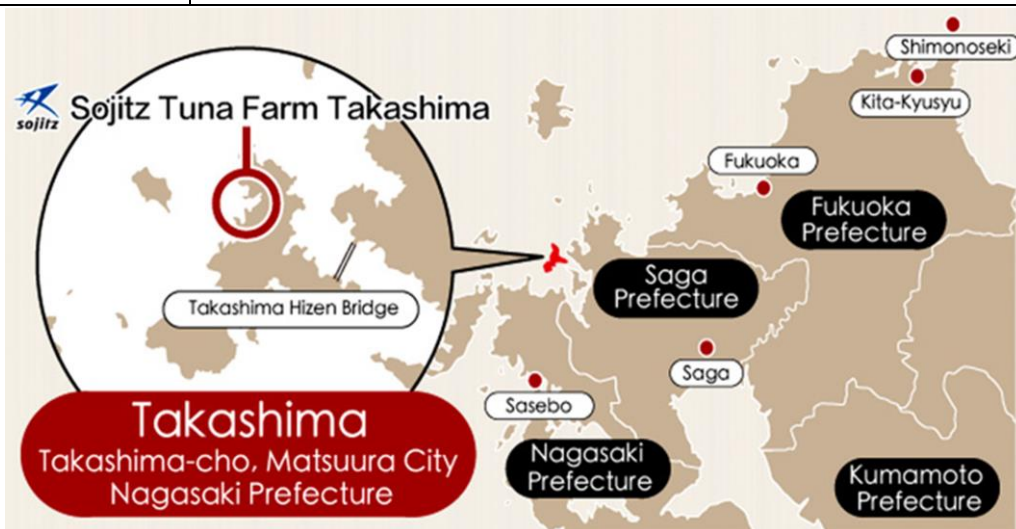
Established	1991
Head Office	11-1, Nagatacho 2-chome, Chiyoda-ku, Tokyo Sanno Park Tower
Representative Director	Kazuhiro Yoshizawa, President & CEO
Main business	Communications business, “smart life”

[Information Services International-Dentsu, Ltd. – Company Overview]

Established	1975
Head Office	17-1, Konan 2-chome, Minato-ku, Tokyo
Representative Director	Setsuo Kamai, President & CEO
Main business	Consulting services; custom system development; sales and support of software; outsourcing, operation and maintenance services; IT equipment sales and others

[Sojitz Tuna Farm Takashima – Company Overview]

Established	2008
Head Office	801-4, Mukae, Aouramen-aza, Takashima-cho, Matsuura City, Nagasaki
Representative Director	Hiroyuki Oonishi, President
Main Business	Tuna farming





## News Release

[For questions regarding this release, contact:]

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