"Maybe I won't be able to eat that fish ...?”
Such a future may come in Japan, one of the world's leading seafood countries.

Japan's fisheries industry faces many challenges,including poor catch of key fish species,a shortage of fish carriers,changes in the marine environment, and difficulties in resource management.

In addition, recent changes in various situations have once again highlightedthe stable supply of food as a national security risk.

Ichi is a supermarket operating mainly in Fukushima City, Fukushima Prefecture.

After witnessing the local seafood industry suffering from the reputational damage caused by the Great East Japan Earthquake, Ichi was considering ways to contribute to the local community as a fishmonger.

In response to this strong desire, we teamed up with NTT EAST, NTT Agritechnology, Ichi, and Okayama University of Science, which has many technologies and know-how related to Land-based Aquaculture, to revitalize the local economy through the primary industry ,and this is the start of the world's first challenge.

A demonstration project has been launched to commercialize the cultivation of sockeye salmon, which is said to be difficult to cultivate.

In land-based aquaculture, “Free-flowing” is mainly used to collect water from the sea and rivers by pumping, but since it drains dirty water with bait and other materials, environmental impact is an issue.

Therefore, we chose a system called
“Recirculating Aquaculture System (RAS)”
By using bacteria to purify and reuse contaminated water from breeding, there is no need to change water.
Hence, planned production can be carried out in a safe and secure environment anywhere.

However, experience and know-how are important in raising fish with high productivity.

Therefore, NTT EAST uses ICT to centrally manage water quality and other data in the cloud,
we have created an environment where we can receive advice from experts located far away.

Interview with “Ichi” Akiyama
By being able to cultivate salmon remotely and in an environment where it is possible to receive aquaculture guidance from experts, we are able to stably cultivate sockeye salmon, which is said to be difficult to cultivate, within a certain yield.

For example, where veterans look, how fish move, how they feed, and what colors they look at are some of the things that are hard to put into writing, so I think it is an important technology in the future to materialize them more realistically, shape them, quantify them, and support aquaculture.

A Land-based Aquaculture model that anyone can start anywhere. Combining this system with “Condition-Optimized Water,” an artificial seawater technology developed by Okayama University of Science that can accelerate the growth of fish, and breeding know-how, we succeeded in enlarging sockeye salmon for the first time in the world on a business basis.

In July 2023, we actually conducted a trial sale at our Ichii store, which was well received by local customers.

Interview with Nobuhiro Ito, President and CEO, Ichiichi Co., Ltd. Fukushima is currently a very sensitive area (for fisheries), so I hope that this initiative will lead to a major fish farming area and become the “starting point for the safe and secure supply of fish”that we can confidently transmit to the world.

The new Land-based Aquaculture business in the region is expected to lead to an economic cycle of utilization of local idle assets, local production for local consumption, spillover to related industries, creation of local jobs, and expansion of the Land-based Aquaculture business.

Based on the cooperation agreement between Kawamata Town and Ichii, Industry, government, and academia work together to study the use of closed schools in the area, with the aim of commercializing the fishery industry in a way that is sustainable for both the environment and the local economy.

By making full use of the NTT Group‘s assets together with our various domestic and overseas partners, we will contribute to regional revitalization through the stable supply of food, the growth and transmission of the primary industry, and the enhancement of attractiveness.