

Land-based boom in Iceland

Iceland's production of land-based salmon was around 2,000 tonnes in 2022. Since then, development has accelerated: several large facilities are now in operation, under construction, or in the planning phase. Toward 2030, total capacity could exceed 180,000 tonnes – but this scale-up demands technological precision, biological control, and solid financing.

Therese Soltveit
therese@landbasedaq.no

Iceland is in the process of establishing a new growth industry: land-based farming of salmon and Arctic char. With access to filtered seawater, geothermal freshwater, and affordable renewable energy, the country has natural advantages few other regions can offer. LandbasedAQ has visited key projects to explore how the initiative is being realized in practice – technologically, biologically, and financially.

Technology and reality in land-based aquaculture

Several companies are now investing in industrial-scale facilities based on RAS, hybrid, and flow-through technology. Some have already started production, while others are waiting on capital or completing construction. If these ambitions are met, the industry could become a significant addition to Iceland's traditional export sectors.

Scaling up and corporate strategies

Over the past five years, land-based aquaculture in Iceland has moved from pilot projects to large-scale ambitions. As of 2025, five major grow-out facilities are in operation or under construction, targeting a combined annual capacity of around 180,000 tonnes.

- First Water (formerly Landeldi) is building in Thorlakshöfn and aims for 50,000 tonnes of annual capacity by 2029. The first harvest took place in 2023. The project includes 158 tanks of various sizes and is being developed in six phases.
- Samherji Fish Farming is building the Salmon Garden on the Reykjanes Peninsula in three stages. At full capacity, the facility is expected to produce 30,000 tonnes annually. The first phase is under construction and is expected to begin operations in 2027.
- Laxey is under way with phase 2 of its grow-out facility in Vestmannaeyjar.

The plan is to reach 36,000 tonnes of annual production. Phase one is operational.

- Thor Salmon is developing a facility in Thorlakshöfn and recently raised €28 million. The project plans for an annual production of 20,000 tonnes. The first smolt facility is under construction and started operations in summer 2025.
- Matorka produces Arctic char in Grindavík. The facility was partially affected by a volcanic eruption in 2023, but operations have since resumed. The company plans to increase capacity from 3,000 to 10,000 tonnes.
- GeoSalmo has planned a fully integrated grow-out facility in Thorlakshöfn, with a capacity of 33,000 tonnes. The company has all permits and technical design in place but has decided to put the grow-out project on hold due to challenging capital access. However, its smolt facility has been completed.

Advantages and bottlenecks

Iceland offers several production advantages: stable water quality, low disease risk, and affordable renewable energy. This enables the production of salmon with a low environmental footprint, aimed at premium markets.

At the same time, as in many other parts of the world, Iceland faces several significant challenges:

- Operational technology: Large facilities require precise water chemistry and high-level technical control. Systems are continually adapted to local conditions.
- Expertise: Local experience is limited. Many companies recruit internationally for engineering, biology, and operations management roles.
- Capital: Investment needs are high, and many projects depend on external financing. Biological risk and salmon prices influence investor appetite.
- Logistics: Iceland depends on stable export logistics. An efficient cold chain and transport capacity are essential.

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