SECTOR PERSPECTIVE

Aquaculture Growth Economics and Investment Priorities

Aquaculture is the main source of growth in aquatic-food supply. Investment returns depend on turning that growth into reliable harvests, competitive unit costs and durable cash flow.

This report reviews the sector drivers, operating economics and capital requirements that matter to V5's board and investors. It connects the global opportunity to the evidence needed before acquiring, financing or expanding an aquaculture business.

103 Mt	53%	US$371bn
Farmed aquatic animals	Share of aquatic-animal output	Aquatic-animal farm-gate value

2024 observations reported by FAO in SOFIA 2026. Mt means million tonnes; figures exclude algae. [1]

The investment case

Demand creates room for growth. Population, incomes and consumer preferences support aquatic-food demand, while wild-capture output faces biological and management constraints. The commercial opportunity still depends on species, geography, affordability and access to customers.

Biology determines the cost base. Feed conversion, survival, growth and harvest quality drive the kilograms available for sale and the time capital remains tied up in biomass. Larger production volumes create value only when margins and cash conversion hold up.

Technology must earn its capital. Genetics, hatchery quality, precision feeding, health systems and selective water-control investments can improve performance. Their value must be demonstrated in repeatable operating results, including maintenance, staffing and energy requirements.

Capital discipline protects the opportunity. V5's investment approach should prioritise verifiable operating assets, measured improvements, appropriate governance and financing that can withstand biological and commercial setbacks.

EDITION RECORD / V5 STRATEGY UPDATED 16 NOVEMBER 2026

Original research: 17 September 2026. Current Fund I terms at v5eq.com/credit/ supersede earlier financing descriptions. Statistical observation years and hypothetical examples retain their original basis.

01 DEMAND AND MARKET CONTEXT

Growth must translate into profitable sales

A structural supply shift

FAO reports 195 million tonnes of aquatic-animal production in 2024, comprising 103 million tonnes from aquaculture and 92 million tonnes from capture fisheries. It projects total aquatic-animal production of 214 million tonnes by 2034. These are global volumes, not revenue or return forecasts. [1]

Capture fisheries remain essential, and better management can support stock recovery. Aggregate output has nevertheless fluctuated within a narrow range since the late 1980s, making aquaculture central to additional aquatic-food supply. [1]

Demand is specific to the customer and product

Population and income growth can expand seafood consumption, while urbanisation supports formal retail, cold-chain distribution and convenient formats. These forces operate unevenly: global growth does not establish demand for a particular Greek species, size grade or processing format.

Fish and shellfish compete with other proteins on delivered price, taste, nutrition, consistency and ease of preparation. Reliable supply and traceability can support customer relationships; premium pricing should be evidenced through realised sales or credible purchase commitments.

Product mix must improve the net margin

Fresh whole fish, fillets, smoked products and ready-to-cook formats serve different channels. Processing can improve market access and value capture, but its economics must include fillet yield, labour, packaging, shelf-life losses, logistics, distributor margins and additional working capital. By-product sales should be recognised only where volumes, specifications and buyers are credible.

Export access adds commercial reach while introducing freight, currency, tariff, certification and buyer-concentration exposure. Investment cases should test the margin after these costs and the consequences of losing a major customer.

Underwrite achieved prices and cash collection

Use customer invoices and realised sales by species, size and format to establish the base case. Test changes in product mix, payment terms and selling costs. Neither market growth nor general inflation guarantees higher real farm-gate prices or stronger cash margins.

02 OPERATING ECONOMICS

The drivers of cash generation

Assess performance at cohort, site and customer level. Reconcile biomass movements, feed use, harvest weights and invoices before using reported margins or production capacity in a valuation.

Driver	Economic effect	Evidence before investment
Feed and conversion	Feed price and feed used per kilogram of output directly affect production cost.	Reconcile feed purchases, feeding records and cohort output; test ingredient and supplier exposure.
Survival and health	Mortality removes saleable biomass after costs have already been incurred.	Cohort survival, loss timing, disease history, veterinary records and insurance exclusions.
Growth and cycle time	Faster growth can shorten the cash cycle and increase annual asset use.	Observed growth by species, season, temperature and stocking density.
Energy and water	Pumping, oxygenation, treatment, chilling and processing create cost and outage exposure.	Consumption per kilogram, tariffs, water availability and tested backup systems.
People and automation	Automation can improve consistency when local teams can operate and maintain it.	Staffing, training, maintenance capability, service response and spare-parts availability.
Scale and utilisation	Higher throughput spreads fixed costs only if output is harvested and sold profitably.	Achieved throughput, downtime, licence limits and credible demand.
Logistics and cold chain	Delays, spoilage and claims reduce the price ultimately retained by the producer.	Customer-level margin, delivery reliability, rejection rates and cash collection.

Feed efficiency has a measurable financial value

Feed is a major cost in fed aquaculture. As a dated regional illustration, feed represented 51% of total expenses in the Cypriot sector in 2022. This is not a universal cost ratio and does not apply to all species or production systems. [3]

Illustration only: at a feed price of €1.50/kg, reducing effective feed use from 1.80 to 1.70 kg per kilogram sold saves €0.15/kg, or €150,000 on 1,000 tonnes sold, before implementation costs. Hold output and other assumptions constant; do not also count the same mortality benefit separately.

Cash discipline: distinguish cash operating earnings from non-cash biomass revaluations. Deduct maintenance capital expenditure and the working capital needed to sustain production when assessing cash available to investors.

03 TECHNOLOGY AND PRODUCTIVITY

Technology must earn its capital

Technology should resolve an evidenced production or market constraint. Compare full ownership costs with observed results.

Genetics and hatcheries

Selective breeding and better juvenile quality can improve growth, uniformity, robustness and feed conversion. Validate benefits for the intended species, environment and farming protocol. A result achieved in one facility or generation should not be assumed to transfer unchanged to another.

Precision feeding and operational data

Cameras, sensors, biomass estimation and automated feeding should improve measurable outcomes: feed losses, survival, growth, harvest timing or labour productivity. Include calibration, training, maintenance and downtime in the investment case.

Health and biosecurity

Surveillance, diagnostics, vaccination where suitable, controlled stock movements and sanitation can reduce losses. Health plans should specify responsibilities, escalation thresholds and response capacity. Biosecurity reduces risk; it does not remove it, and insurance may exclude important disease or operational events.

RAS and selective water control

Recirculating aquaculture systems (RAS), flow-through and hybrid designs offer different degrees of control over water, production conditions and location. The appropriate choice depends on species biology, water quality, energy, discharge permissions, technical staffing and customers.

For RAS, quantify whether better survival, timing, consistency and sales cover additional capital, energy, maintenance and commissioning costs. Verify backup power, oxygen, biofilter maturity and achievable utilisation. Assess return on invested capital alongside operating margin.

Processing and environmental performance

Processing and by-product recovery require proven yields, throughput and buyers. Trial sales and third-party processing can help establish demand before committing to a dedicated facility.

Measure feed sourcing, mortality, energy, water, effluent, benthic effects, escapes and welfare at asset level. Better resource efficiency can support margins; water recirculation alone does not establish a lower environmental footprint.

04 CAPITAL ALLOCATION AND V5 PRIORITIES

Capital discipline and control

Capital need is substantial and scenario dependent

The World Bank estimates roughly US$900 billion to US$2 trillion of investment for 2025-2050, combining business-as-usual growth and additional upside. This scenario includes capital expenditure, working capital and ancillary investment; it does not represent committed funding or forecast returns. [4]

Match funding to biology and commissioning

Production cycles, construction and biological ramp-up require patient capital and liquidity reserves. Equity should absorb development uncertainty; debt service should fit conservative cash flow. Fund seasonal biomass, delayed harvests, maintenance and contingencies.

Recognise grants, guarantees and concessional capital only after confirming eligibility, timing and conditions. Sustainability-linked terms require measurable baselines and credible reporting; a blue label does not assure cheaper finance.

Protection depends on evidence and execution

Verify site rights, licences, environmental capacity, ownership and liabilities. Assess collateral recovery after enforcement costs, delays and operating needs. Title, ranking and enforceability require legal diligence; biomass and specialised equipment may have volatile recovery values.

Stress test selling prices, feed, energy, mortality, growth, commissioning and customer default, including combined shocks and liquidity needs. Inflation may raise replacement costs while compressing margins; it is not an automatic investment hedge.

Implications for V5 / current strategy

V5's current Aquaculture Growth Fund I is equity-led and Greece-focused, combining Greek operating partnerships with Danish technical expertise. Target stakes are 35% in established operators and 51% in specified onshore assets; terms are asset-specific. V5 reports three signed companies (each with over 35 years of operating history), representing 4,500 tonnes of licensed annual capacity, plus four additional companies in advanced talks. At least 10,000 tonnes of combined whole-company annual production is targeted from December 2027 onwards, subject to completion, approvals and operational delivery. Capacity is not actual or Fund I-attributable output; signing is not acquisition completion. [5]

Start with verified operations. Prioritise licensed assets, reconciled production records, credible customer demand and demonstrable cash generation. Assess integration and shared services on their incremental economics.

Sequence improvements. Address juvenile quality, survival, feed efficiency, operating data and commercial execution before major expansion. Use selected production stages and pilot cohorts to validate new systems or species.

Make governance investable. Link staged funding to operating milestones, cash controls and consistent monthly reporting. Monitor liquidity, biological performance, customer concentration and covenant headroom together.

SOURCES AND BASIS OF PREPARATION

Evidence and interpretation

Prepared for the board and investors of V5 Verde Equity on 17 September 2026. This report refines the supplied article, updates the headline production evidence and distinguishes published observations from investment analysis.

[1] FAO. SOFIA 2026: Global fisheries and aquaculture production reaches new highs. 16 June 2026. 2024 production volumes and values, aquaculture shares and the projection to 2034.

[2] FAO. Global fisheries and aquaculture production reaches a new record high. 7 June 2024. Source of the original US$472 billion first-sale benchmark for 2022.

[3] European Commission JRC and STECF. The 2024 Aquaculture Economic Report. 2025. STECF 24-14, JRC140767. Cyprus cost structure, section 4.5.4, printed page 102 (PDF page 104). Feed-cost share refers to 2022.

[4] World Bank. Harnessing the Waters Volume 1. 2025. A Trillion Dollar Investment Opportunity in Sustainable Aquaculture. Growth and Investment Outlook, printed pages 59-60 and Table 8.

[5] V5 Verde Equity. Current Fund I mandate and terms: v5eq.com/credit/, updated 16 November 2026. Original research strategy context accessed 17 September 2026; logo and colour palette retained.

Scope and definitions

Published figures retain their observation year and scope. The original rounded US$500 billion headline derives from a US$472 billion first-sale benchmark for fisheries and aquaculture in 2022. [2] It is not a current aquaculture-only valuation or retail market size. For 2024, FAO reports US$391 billion for aquaculture including algae, compared with US$371 billion for farmed aquatic animals. [1] Forecasts are conditional and may be revised.

The source article also cited the OECD-FAO Agricultural Outlook 2025-2034. Its demand, feed and real-price projections are edition specific. They have not been presented here as current forecasts or as forecasts for Greek seabream and seabass. The operating recommendation is to test returns without relying on price inflation.

The feed-saving example is an arithmetic illustration using stated assumptions, not an estimate for a V5 investment. Operating and capital-allocation recommendations are analysis, not findings about a particular target. No acquisition, asset valuation, financing availability or security package is confirmed by this report.

Reader note

This sector report is for information and discussion. It is not an offer of securities or a commitment to invest. Any investment requires transaction-specific diligence and definitive documentation; capital is at risk.

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