**Invest in New Zealand** 

# AQUACULTURE







### FOREWORD FROM THE NEW ZEALAND GOVERNMENT

It is our great pleasure to introduce this Investment Prospectus, a comprehensive guide to the abundant opportunities that our nation offers to global investors.

New Zealand is renowned for its dynamic economy, innovative spirit and unwavering commitment to sustainable growth. Our location in the Asia-Pacific region, combined with a stable political environment and a highly skilled workforce, makes us an ideal hub for global business. We are dedicated to fostering a business-friendly climate, with policies that prioritise entrepreneurship, innovation and trade.

Reform of New Zealand's Overseas Investment Act has made investment into the country faster and more efficient. In addition, the 2024 Fast-track Approvals Act speeds up consent for infrastructure and development projects, and halves processing times for overseas investment consent applications.

New investor visa settings welcome migrants who will invest here, and an increase in Free Trade Agreements with our trading partners ensures further growth.

In 2025, the establishment of a new government agency, Invest New Zealand, will streamline processes for foreign investors, boosting capital investment in sectors such as banking, fintech, transport, energy and manufacturing.

#### **Aquaculture in New Zealand**

Aquaculture is an industry in which New Zealand excels. Over decades, we've built a reputation as a world-leader in sustainable and innovative aquaculture management. As we seek to meet rising global demand for sustainably produced seafood products, our aim is to reach NZ\$3b in annual sales by 2035, presenting significant opportunities for global investment and collaboration.

Our sector is underpinned by world-class R&D capabilities, top scientific talent and a nimble regulatory environment that encourages innovation. Cutting-edge solutions are being developed here that will impact aquaculture production around the world, from open-ocean farming technologies to blue tech solutions and exciting new nutraceutical products.

Investment in these areas is supported by an established manufacturing and supply chain capability, a sustainably managed ecosystem and a highly experienced aquaculture workforce. And with a goal of net zero carbon emissions by 2050, we are committed to success.

We look forward to showing you what New Zealand has to offer.



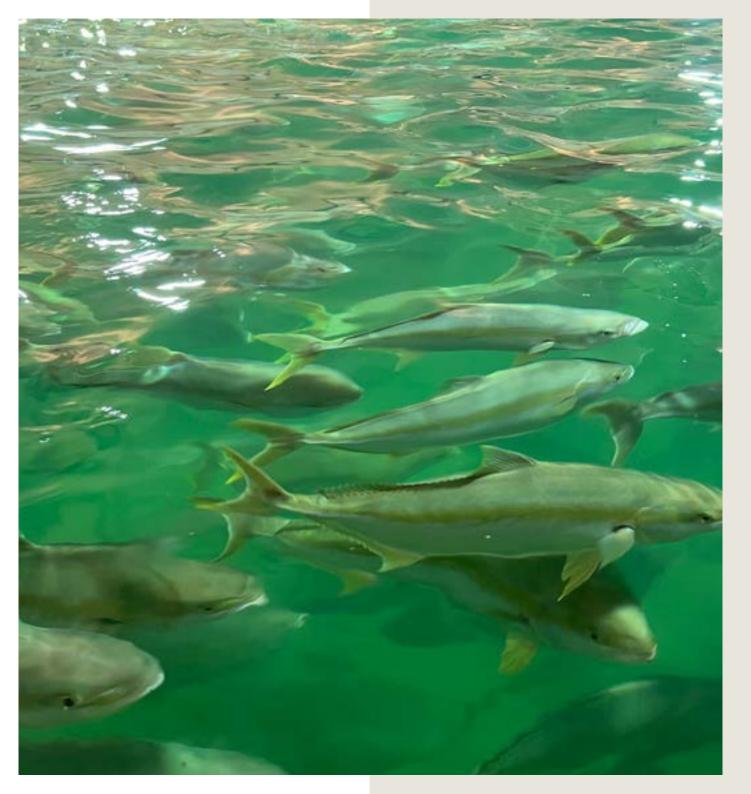
Rt Hon Christopher Luxon
Prime Minister of New Zealand



Hon Todd McClay Minister for Trade and Investment



Hon Shane Jones Minister for Oceans and Fisheries



### READY TO GROW

Welcome to Aotearoa New Zealand	4
Aquaculture: ready for growth	10
The investment opportunity	18
Aquaculture subsectors: a deep dive	24
Emerging opportunities	34

## WELCOME TO AOTEAROA NEW ZEALAND

New Zealand is an innovative nation with big ambitions.

Ranked one of the best business environments on the planet, it's progressive, globally connected, and rich with potential.

New Zealand is a country known for its unique beauty, successful businesses, trusted government and stable, future-focused economy.

On our shores, you'll discover an abundance of natural resources, fertile land, plentiful oceans, and unmatched access to renewable energy.

You'll also find an educated, accessible workforce and investment opportunities unlike anything else in the world.

The possibilities for growth are endless. Don't miss your chance to be part of it.



### AA1 LOW-RISK BUSINESS ENVIRONMENT

Source: Country Risk Ratings (2024)

### 2ND FOR GOVERNMENT INTEGRITY & FREEDOM OF TRADE

in the world

Source: Index of Economic Freedom (2024)

# **1ST**MOST PROSPEROUS COUNTRY

outside of Europe

Source: Legatum Prosperity Index (2024)

# AN INVESTMENT DESTINATION YOU CAN TRUST

In a world of increasing uncertainty, New Zealand offers a stable business environment where you know you're in safe hands.

Consistently rated one of the easiest places in the world to do business, we're renowned for our economic and political stability, government integrity and freedom of trade.

We're also ranked one of the planet's most peaceful, most prosperous and least corrupt destinations.

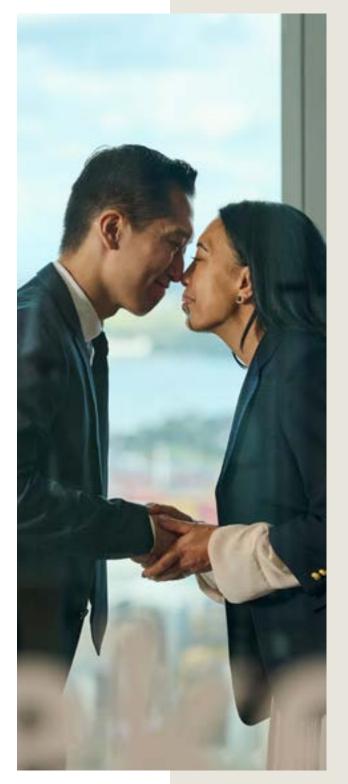
New Zealand's economy has grown steadily over the past decade, consistently sitting above the OECD average. We've been named among the best investment environments in the world and awarded AA+ credit ratings from all three major global rating agencies.

Our business-friendly environment is built on a transparent regulatory system, with well-designed legislation, a stable currency, and a simple, fair tax structure that supports capital development and R&D. We also boast world-class food safety and biosecurity frameworks, so we can be trusted to deliver safe, secure products right around the world.

As a nation, we're innovation-focused, thinking outside the box and pushing boundaries to unlock new solutions.

Coupled with an educated, readily-available workforce, it makes New Zealand the ideal testbed for new technology and the perfect place for businesses to grow and scale.

And it's all backed by a trusted government that proactively promotes investment and supports advancement, removing barriers and unlocking sectors for faster growth.



## **1ST** FOR GOVERNANCE

outside Europe

Source: Legatum Prosperity Index (2024)

### 3RD FOR CORRUPTION TRANSPARENCY

in the world

Source: Corruption Perception Index (2023)

# 4TH MOST PEACEFUL COUNTRY

in the world

Source: Global Peace Index (2024)

# 6<sup>TH</sup> FOR POLITICAL STABILITY

in the world

Source: Political Stability Index (2023)

# 8TH BEST PLACE TO DO BUSINESS

in the world

Source: Economist Intelligence Unit Business Environment Rankings (2024)

# **3**RD FOR ECONOMIC FREEDOM

in Asia Pacific

Source: Index of Economic Freedom (2024)

# TOP 2% FOR REGULATORY QUALITY & CONTROL OF CORRUPTION

in the world

Source: Global Peace Index (2024)

# **3**RD FOR TAX COMPETITIVENESS

in the developed world

Source: International Tax Competitiveness Index (2024)



## LONG-TERM VALUE, SUSTAINABLE OUTCOMES



With global demand for sustainable products and supply chains increasing, it makes financial sense to seek investment opportunities that measure up. You'll find them in New Zealand.

New Zealanders have a special relationship with the land and ocean. We understand that every decision we make can impact them, now and into the future.

Māori, the Indigenous people of New Zealand, have helped us shape these collective values. Māori place great value on kaitiakitanga (guardianship), the understanding that our existence depends on nourishment from our land and seas, so we in turn must nurture our environment. This drives us to create a prosperous, sustainable economy for tomorrow's generations, and to ensure our valuable resources continue to thrive.

New Zealand's commitment to sustainability is evident in our government's ambitious target to reach net zero carbon emissions by 2050, and by the fact that around 88% of our electricity is generated from renewable sources.

Being able to meet global carbon emission regulations provides a competitive edge for New Zealand businesses.

For investors, it offers long-term security, sustainable value, and investment opportunities that will deliver meaningful, purpose-driven results.

### 6TH FOR ENVIRONMENTAL HEALTH

in the world

Source: Environmental Performance Index (2024)

# AROUND 80/0 OF NZ'S ELECTRICITY IS FROM RENEWABLE SOURCES

Source: MBIE Energy in New Zealand (2024)

## NET ZERO CARBON EMISSIONS

our aim by 2050

Source: New Zealand Ministry of Business, Innovation & Employment (2024)

# **4**TH BEST AIR QUALITY

in the world

Source: Environmental Performance Index (2024)

### GLOBAL CONNECTIVITY IS IN OUR DNA

Being an island nation has made us resourceful, innovative and determined. It's also given us a globally focused mindset that means the world is never far away.

New Zealand welcomes international partnerships and investment. In fact, for our businesses, working with the world to deliver global solutions is second nature.

We operate on free market principles and have one of the most open market economies on the planet, with an impressive network of global business connections and free trade agreements.

These not only generate significant trade and economic opportunities for New Zealand, but provide global investors with easier market access, reduced cost barriers, and a more stable investment environment.



New Zealand's advanced digital infrastructure places us in the top 20 countries for network coverage, 5G deployment and internet speeds.

Our data sovereignty regulations are closely aligned with international standards, including General Data Protection Regulation (GDPR).

New Zealand was the first of 14 countries outside the EU to receive an adequacy decision under GDPR. This allows for personal data to flow from the EU and the European Economic Area to New Zealand without the need for further safeguards.

New Zealand is one of the first countries in the world to see the new day. We're ideally placed to work across global time zones — spanning the daytime hours of Asia and America, and working while Europe sleeps.

We also have a solid, agile supply chain and well-established sea and airfreight networks that connect us to the world.

New Zealand is a gateway to Australia, North America, Asia and the Pacific Islands. We fly daily to all the world's major cities, reaching Singapore, Hong Kong, San Francisco, Los Angeles, Vancouver, Shanghai and Tokyo overnight, and our extensive shipping routes take our products all around the globe.



# ONE OF THE WORLD'S MOST OPEN MARKET ECONOMIES

### 62 DIRECT FLIGHTS

to international destinations

# 15 FREE TRADE AGREEMENTS IN FORCE

including CER with Australia



# A SNAPSHOT: NEW ZEALAND'S SECTORS OF THE FUTURE

New Zealand's diverse economy spans a wide range of sectors

— many with strengths and advantages found nowhere else in the world.

We believe New Zealand is particularly well-positioned for growth in these four sectors.



#### **Aquaculture**

Investing in New Zealand's aquaculture sector is an opportunity to tap into a rapidly growing global market, projected to expand at a compound annual growth rate (CAGR) of 5.4%. New Zealand boasts one of the largest exclusive economic zones (EEZ) in the world, covering around 4.1 million square kilometres, providing an abundant and sustainable resource base. New Zealand has decades of expertise producing premium seafood, and a government committed to providing a supportive and accelerated regulatory environment. As aquaculture becomes a vital source of protein, our industry is set to reach NZ\$3b by 2035.



#### Renewable energy

With vast natural resources and ready access to renewable energy, New Zealand is positioned to lead the world's transition to a net zero carbon future. Currently, around 88% of our electricity is generated from renewable sources, yet only 30% of our industrial processes and transportation rely on clean energy - leaving a massive untapped opportunity. This potential is amplified by our ability to export renewable energy through food, metals, fuels and data. With strong government backing and growing demand. New Zealand's renewable energy sector is primed to scale at speed.



#### Cleantech

Global demand for cleantech is surging, driven by urgent efforts to combat climate change and achieve net zero carbon emissions. Investment in clean energy technology is set to skyrocket, with the market projected to reach US\$1t by 2030. As a global leader in sustainability, New Zealand is at the forefront of this movement, with a highly skilled tech workforce, strong R&D commitment, and a track record of groundbreaking cleantech solutions. New Zealand is rapidly becoming a hub for impactful, scalable cleantech projects and, with a growing pipeline of new ventures, now is the perfect time to invest.



#### Advanced transportation

New Zealand's unique geography and innovative mindset make it the ideal testing ground for transportation technology and the perfect place to deploy and scale cutting-edge solutions. Ranked highly in the 2024 Global Innovation Index for Infrastructure, New Zealand's forward-thinking regulatory environment balances safety with industry growth. We're also ranked fourth in the world for number of rocket launches, reinforcing our strength in both terrestrial and aerospace transportation. Supported by strong government and industry collaboration, our fast-growing advanced transportation ecosystem is continuously pushing the boundaries of what's possible, on Earth and beyond.



Learn more about sector opportunities here.

# AQUACULTURE: READY FOR GROWTH

### GLOBAL AQUACULTURE IS GROWING

Around the world, demand for aquaculture products is on the rise. The global aquaculture sector is projected to grow at a CAGR of 5.37% from 2024 to 2032.

For the first time in history, we're farming more seafood than we're catching in the wild. Globally, aquaculture supplies more than 50% of all seafood produced for human consumption — and that percentage will continue to rise.

The demand for aquaculture is driven by increasing global population, changes in consumer preference towards sustainability, and recognition of the health benefits seafood offers.



#### **Consumption is increasing**

Global seafood consumption is projected to increase, reaching an average of 21.2kg per capita by 2032. This will be largely driven by demand in Asia, where consumers are expected to account for 74% of the additional seafood consumed globally.

Consumers are increasingly favouring healthier options, reflecting a societal emphasis on wellness.



### New Zealand excels in sustainable aquaculture

There has been a global shift in consumer sentiment towards more sustainable protein production.

On average, New Zealand-farmed mussels, oysters and salmon have lower carbon emission levels than terrestrial animal proteins.



#### Strong health benefits

Seafood is high in protein, low in saturated fats and has important nutrients including omega-3 fatty acids, vitamin A and vitamin B. Strong evidence links the consumption of fish and other seafoods to improved brain, eye and heart health.



## NEW ZEALAND AQUACULTURE: INVEST IN GROWTH

New Zealand's ocean space is approximately 15 times our land mass. The potential for further sustainable growth of our world-class products in this space is vast.

Backed by the government, New Zealand's aquaculture sector is poised to grow exponentially.

New Zealand's aquaculture industry is rapidly expanding to meet consumer demand for secure, healthy, sustainable food sources. The government is dedicated to building the sector into a NZ\$3b industry by 2035.

The products grown by our aquaculture industry are among the finest in the world. New Zealand supplies 75% of the world's King (Chinook) salmon. Along with Greenshell™ mussels and Pacific oysters, we export to 78 countries, generating annual revenue of NZ\$750m+.

The New Zealand aquaculture ecosystem is well-supported up and down the supply chain, with world-class science and research working in partnership with the industry to devise global advancements.

Not only are our expert producers developing exciting new species, we are now pursuing open-ocean farming and land-based opportunities, creating huge potential for food production and even greater investment opportunities.



Learn more about New Zealand's Aquaculture sector here.



78
COUNTRIES IMPORT
NZ AQUACULTURE
PRODUCTS

Source: Aquaculture New Zealand (2023)

NZ\$34B

NEW ZEALAND'S
GLOBAL F&B EXPORTS
IN 2024

Source: New Zealand Food & Beverage Council (2024)

11,000 HA NZ OPEN OCEAN SPACE

consented for aquaculture

Source: Cawthron Institute

### NEW ZEALAND AQUACULTURE: INVEST IN EXCELLENCE

New Zealand's aquaculture industry is a world leader when it comes to sustainability, technology and expertise. Here are even more reasons to invest in this growing sector.

- To gain a global advantage
  Our unique species are superior.
  New Zealand King salmon is naturally resistant to the salmon lice that have impacted farmed salmon overseas.
- Ease of doing business

  New Zealand has extended all

  marine farm consents by 20 years,
  out to 2050, and we're committed to
  scaling projects at pace.

New Zealand's clean waters and abundance of plankton make it the ideal location to maximise aquaculture's potential. You're in safe hands

Our experienced producers excel in breeding, farming and processing. Like you, they're ready to make big things happen.

- We prioritise sustainability
  We adhere to high environmental standards to ensure a prosperous future for our aquaculture industry, the planet and your investment.
- To meet increasing consumer demand for seafood

We have the water space for further sustainable protein production to support a growing global population.

You'll work with globally renowned experts

New Zealand's aquaculture scientists and researchers have forged an international reputation for delivering improvements in breeding, animal welfare, biosecurity and productivity across current and emerging species. To chart new frontiers

Seaweed, microalgae, kingfish, pāua (abalone), scallops and other species offer an array of exciting new export and investment opportunities.

- You'll join a legion of innovators Our experts are continually finding ways to boost the efficiency and resilience of our species in the face of climate change.
- To command a premium
  New Zealand aquaculture products

are premium. In October 2024, NZ\$30/kg was the average export price for our King salmon.



# A SUSTAINABLY MANAGED INVESTMENT

New Zealand aquaculture is one of the most efficient and sustainable forms of food production on the planet.

Our marine ecosystem is flourishing; your investment will too.

#### Highly rated by consumers

New Zealand King salmon is the first ocean-farmed salmon to achieve a 'Best Choice' rating from the globally renowned Monterey Bay Aquarium's Seafood Watch programme, which evaluates the sustainability of seafood sold in the USA. This means our salmon farms have strong biosecurity management and minimal impact on the environment.

#### Low carbon seafood

Our Greenshell™ mussels and oysters have a similar footprint to plant proteins, such as tofu, while New Zealand's King salmon has a carbon footprint comparable to poultry and eggs.

#### World-class eco-management

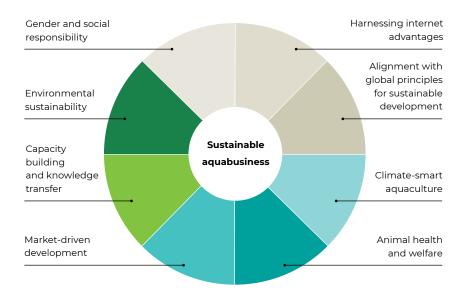
Our aquaculture operations are verified by the A+ Sustainability Programme, a continuous improvement initiative designed for New Zealand, based on global best practice sustainable management frameworks.

#### Ongoing marine health initiatives

New Zealand's aquaculture industry is committed to caring for and continually improving our country's marine health. There are many mussel and seaweed restoration projects already underway, and a pipeline of more to come.

New Zealand King salmon is the first ocean-farmed salmon to achieve a 'Best Choice' rating from the Monterey Bay Aquarium's Seafood Watch programme, a globally renowned initiative that assesses the sustainability of seafood products.

#### Pillars for sustainable aquabusiness



# ENABLING SUCCESS: AQUACULTURE REGULATORY ENVIRONMENT



The New Zealand government is committed to improving the way aquaculture is managed and regulated, providing a more certain pathway to sustainable growth and enabling industry to invest with confidence.

Marine aquaculture in New Zealand is governed under the Resource Management Act for inshore activities and the Exclusive Economic Zone Act for activities outside 12 nautical miles.

A range of changes to further support sustainable aquaculture growth have been introduced or are underway.

#### **Government traction:**

- In September 2024, new legislation was enacted to extend all existing marine farm consents by 20 years, but not beyond 2050. This reduces cost and uncertainty, giving marine farmers greater confidence to invest in, improve and grow their business.
- Aquaculture projects are a key part of the New Zealand government's new Fast-track Approvals Act, which focuses on facilitating the delivery of significant projects in New Zealand. The act provides a quicker and more streamlined consenting pathway, and enables the regional or national benefits of a project to be explicitly considered.
- The government is also exploring changes to make it easier to trial and adopt new species, innovation and technology, and ensure re-consenting processes are proportionate to potential effects.
- The government has also committed to replacing the Resource Management Act. This is an opportunity to improve the regulatory settings for aquaculture and better provide for long-term sustainable growth.
- Together, these changes will support industry growth towards the goal of NZ\$3b in annual revenue by 2035.

### MĀORI ARE INTEGRAL TO NEW ZEALAND'S AQUACULTURE SECTOR



The Māori economy is flourishing, with an asset base in excess of NZ\$100b and 11% annual growth since 2018.

Māori, the Indigenous people of Aotearoa New Zealand, are key partners in aquaculture projects across the country.

Working with Māori opens the door to a range of excellent investment opportunities, and a deep well of knowledge and expertise. Kaitiakitanga (guardianship) is a vital consideration of future growth.

As kaitiaki (guardians) of their whenua (land) and moana (sea), Māori are committed to protecting our environment on behalf of past and future generations, while actively looking for opportunities to develop these assets.

Aquaculture represents a significant opportunity for Māori to continue to grow these assets sustainably.

### Māori are key players in our aquaculture sector

Māori ownership and investment in aquaculture in New Zealand is significant and continues to grow. The New Zealand government is required by law to provide certain groups of iwi (Māori tribes) with assets equivalent to 20% of the value of all new marine farming space created after 1 October 2011. These assets can include access to space in the ocean to develop their aquaculture aspirations.

### Māori are part of the decision-making process

By working in partnership with Māori and their communities, the government supports the growth of the aquaculture industry, helping to build knowledge and aid Māori input into growth opportunities.

Aquaculture training programmes continue to upskill our people to meet industry needs, fostering a loyal and committed workforce that has benefits for investors too.



### BUILDING MEANINGFUL RELATIONSHIPS

By partnering with Māori, you'll gain access to a range of purpose-driven, high-growth aquaculture opportunities. Invest New Zealand can help you navigate the process.

Māori welcome investments from those who share their values and ambitions. The team at Invest New Zealand works closely with our Māori partners to develop future-focused investment opportunities that benefit not only investors, but our country, our people and the planet.

When you invest in New Zealand aquaculture, you're likely to find yourself working with Māori entities, including iwi corporations, trusts and organisations.

Our Investment team can help you forge meaningful partnerships with Māori, acting as your key point of contact and introducing you to the right people at the right time.

Together, we can make big things happen.

# THE INVESTMENT OPPORTUNITY

# INVESTMENT OPPORTUNITIES ACROSS THE VALUE CHAIN

The scope of New Zealand's expanding aquaculture industry is truly exciting. Whether your interest lies in significantly scaling up existing businesses or establishing new industries, you'll find a diverse range of opportunities across the value chain.

Join us as we continue to innovate to meet climate and consumer needs in this ever-growing sector.

#### Inputs

- Hatcheries and nurseries for improved resilience and productivity across all species.
- Locally sourced fish feed ingredients and development of a feed mill.
- Continued innovation in breeding across all species is essential, and New Zealand also has the opportunity to export its breeding expertise.

#### **Farming**

- Net and pen system development to enable open-ocean farming.
- On-land recirculating aquaculture systems to support large smolt and full grow out.
- Blue technology for remote farm management.
- Development of new farms for current and new species.
- Larger service vessels, well boats, barges and transport solutions for open-ocean farming.
- Transition of existing marine consents to new species.

#### Harvesting & processing

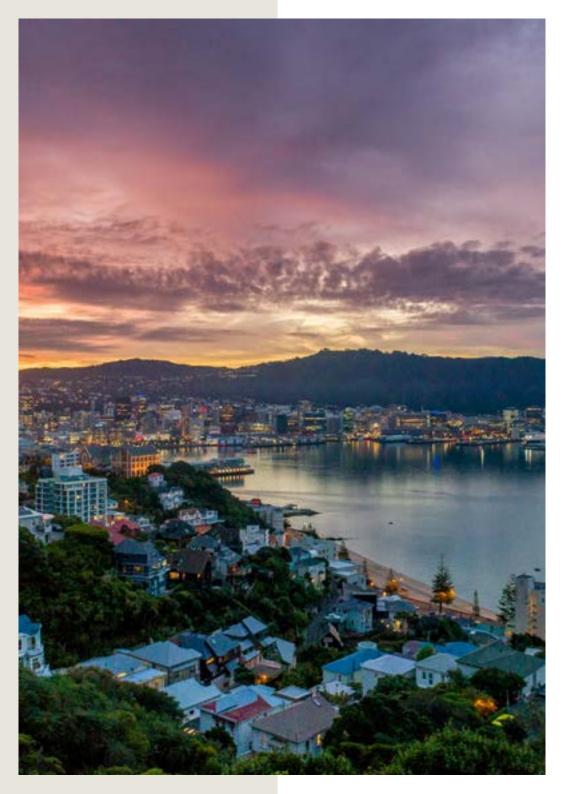
- Further utilisation of remaining raw materials into high-value products.
- Improved freezing technology solutions to enable increased sea freight.
- High-value processing solutions to extract greater value.
- · Smart packaging solutions.

#### Logistics

- Ports and landing facilities near farm operations.
- Land transport upgrades in key regions.
- Airfreight capacity increase including regional airport infrastructure upgrades for chilled freight.
- Scale-up of 3rd-party logistic providers.
- Increase cold storage capacity near regional transport hubs.



View more investment opportunities here.



### NEW ZEALAND IS OPEN FOR AQUACULTURE INVESTMENT

Our goal to grow the aquaculture sector to a NZ\$3b industry relies on investment.



#### 1. Equity or debt investment

We offer equity or debt investment opportunities in high-growth ventures focused on premium species such as King salmon and Greenshell™ mussels. By integrating sustainable technologies, we gain access global seafood markets.



#### 2. Strategic partnerships

We welcome collaborations across the aquaculture value chain to enhance feed innovation, hatchery technologies and processing advancements, driving co-development of environmentally friendly farming systems. This will improve our capabilities and resources.



#### 3. Offtake arrangements

Investors have the potential to secure reliable supply agreements with New Zealand's premium aquaculture producers, ensuring consistent access to sustainably farmed seafood tailored to specific market needs.



#### 4. Market expansion

We're actively seeking enquires from international companies wanting to invest in New Zealand's aquaculture sector and make the most of our natural competitive advantages.







### **EXPANDING HORIZONS**

Explore diverse investment opportunities as New Zealand takes farming to the open ocean, maximising existing production areas and commercialising new species.





#### Salmon

Salmon production in New Zealand is expected to increase five-fold within the next 2 decades. There is strong global demand for New Zealand's premium King salmon, and we have the space to scale marine and land-based production.

Discover New Zealand's King salmon opportunities (pg 25).



#### Mussels

Mussels are currently New Zealand's largest aquaculture export.

The unique Greenshell™ mussel provides New Zealand with a competitive advantage globally.

Discover New Zealand's Greenshell mussel opportunities (pg 29).



#### **Oysters**

There is a growth opportunity for oysters to become a higher-volume export product.

There are also opportunities to develop other oyster species, and to increase productivity by further advancing farm technologies.

Discover New Zealand's oyster opportunities (pg 33).



#### **Emerging opportunities**

Seaweed is an emerging sector, with the potential to become a high-value export opportunity in the nutraceutical, pharmaceutical and protein production sectors.

Kingfish, scallops and other species offer diversification and new export options.



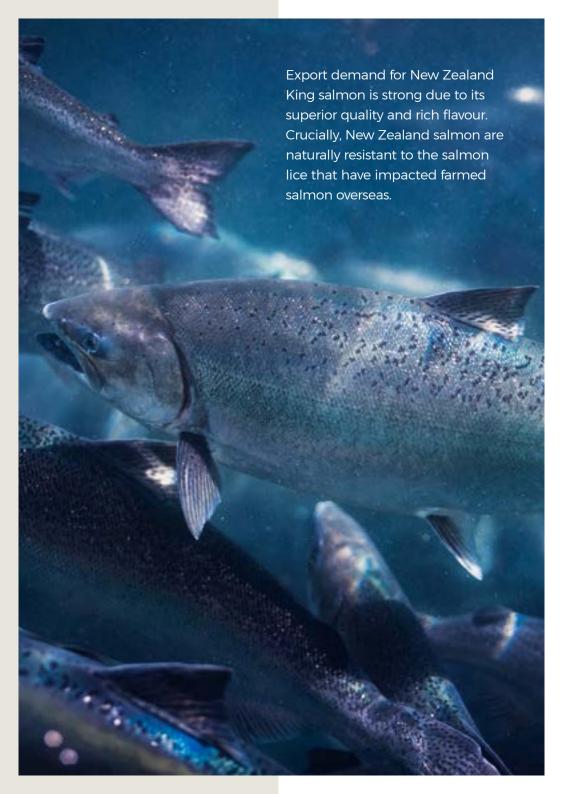
#### **Technology**

New Zealand-developed blue tech has the opportunity to grow in tandem with the aquaculture sector, supporting growth both domestically and globally.

This includes exciting developments around land-based aquaculture for current and new species.

Discover New Zealand's emerging opportunities (pg 34).

# AQUACULTURE SUBSECTORS: A DEEP DIVE



### KING SALMON: READY TO SCALE

Invest in the New Zealand King (Chinook) salmon industry and join an ambitious sector, with production on track to grow from 15,000 to more than 70,000 tonnes per year.

New Zealand supplies 75% of the world's King salmon. We have been been farming for more than 50 years in marine farms and glacial-fed canals.

Recent regulatory changes are now set to unlock new opportunities.

Open-ocean salmon farming and the development of land-based solutions, including recirculating aquaculture systems (RAS) and hybrid systems, are expected to generate substantial production growth.

#### **Opportunities**

- Significant investment opportunities exist across the value chain to support an increase in salmon production in New Zealand, from further research into breeding and farming methods, to RAS facilities, on-farm infrastructure and processing plants, and logistics.
- Invest New Zealand actively supports the salmon sector to identify opportunities for companies and investors to work together.
- New Zealand is building relationships with international partners, including companies, technical experts and investors, to accelerate growth opportunities in this exciting sector.

NZ\$196.4M+
IN SALMON EXPORT
REVENUE

December 2023

- November 2024

Source: Export Statistics (2024), Aquaculture New Zealand.

#### **MARKET VALIDATION:**

# KING SALMON: THE OPPORTUNITY IN A GLOBAL SALMON MARKET

New Zealand is a leading producer of King salmon.
Our existing King salmon farms produce ~15,000 tonnes p.a. and, with an additional 88,000 p.a. planned, total production could increase to 103,000 p.a. should all developments proceed.

#### Growth in global salmon consumption

Growth in comparable premium fish and premium protein markets suggests there is potential for global King salmon consumption to grow from <1% to 3-5% of total salmon consumption in affluent countries.

The underlying growth outlook for total salmon consumption is also positive, driven by population growth and increasing seafood consumption per capita.

Total global salmon consumption is 3,162,000 tonnes p.a (2022), with USA, Japan and China among the top 10 consumers. From 2010-2022, consumption has grown at 3.4% CAGR, historically restricted by supply-side factors.

King salmon consumption (23,000 tonnes in 2022) is similarly supply-constrained, presenting an opportunity for prospective producers.

The current 2035 King salmon consumption forecast (in product weight), based on 3–5% penetration, indicates a potential market of 108,000–182,000 tonnes p.a. This would exceed the projected supply of 88,000 tonnes p.a., based on forecast developments in New Zealand.

#### King salmon's growing price premium

Globally, salmon aquaculture is restricted to coastlines with optimal ocean temperatures between 8-17°C, making New Zealand well-positioned as a producer.

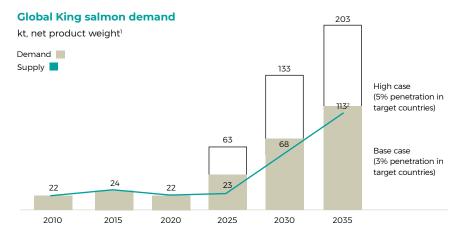
As supply is expected to continue to constrain consumption, and forecast demand exceeds supply, King salmon is likely to continue to command a premium, including in the USA where its relative price premium is +81%.

This premium is forecasted to grow in line with Atlantic salmon price projections to 2035.



Even with forecast supply increases, the demand remains high and premium prices are likely to be maintained.

#### King salmon consumption could grow to 3–5% penetration of the salmon market which would outstrip forecast supply



#### Assumptions

#### Assumes all planned developments are completed within the specified timeframes

King salmon could grow to 5% of the salmon market, comparable to the penetration of Wagyu beef as a proportion of the total beef market. (This level of demand growth would require additional marketing for King salmon highlighting its relative premium status to Atlantic salmon).

King salmon could grow to 3% of the salmon market, comparable to the penetration of other premium fish such as striped bass, halibut and bluefin tuna as a proportion of their fish families.

- Production data converted from live weight to net product weight using a conversion factor of 85%, as per New Zealand government recommendation.
- This product weight corresponds with the live weight of 103.3 kilo tonnes per annum which is New Zealand's current forecasted supply in 2035.

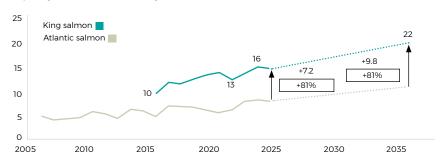


View the full market validation report here.

#### The c.80% price premium for King salmon in 2024 in USA is forecast to be sustained and grow in line with Atlantic salmon price forecasts to 2035

#### King salmon vs Atlantic salmon prices, 2006-20351

US\$ per kg, fresh whole head on gutted



#### King salmon

Sell-off of stockpiled supply of King salmon due to COVID-19 led to lower price in 2021 but this has since recovered – with farm price of fresh whole estimated at NZ\$25-39/kg (US\$15-17)

#### Atlantic salmon

Norway Atlantic salmon supply constraints led to historic increase in price over 2020-2023 which is forecast to normalise in 2025

Forecast		
CAGR		
King salmon		
2006-2015	2015-2024	2020-2035
-	5.3%	3.0%

Assume King salmon prices grow in line with near-term FPI price forecasts for Atlantic (2021-2024), before reverting to main growth rates<sup>2</sup> in the outer years (2024-2035)

Atlantic salmon		
0.1%	7.5%	0.3%

- King salmon prices available between 2015-2023 as per NZ Stat; Atlantic salmon prices available to 2024 as per Fish Pool Index (FPI).
- 2. Mean growth rates refer to 2006-2024 CAGR for Atlantic salmon as per FPI.

#### **CASE STUDY:**

# THE NEW ZEALAND KING SALMON CO. LIMITED: INNOVATING OFFSHORE FARMING FOR FUTURE GROWTH



New Zealand King Salmon Co. Limited (NZKS) has been a leader in King salmon farming for over 35 years, employing over 440 staff in its farming, processing, and distribution operations across New Zealand's South Island.

The company is preparing to extend into offshore aquaculture in New Zealand with the piloting of Blue Endeavour, an open ocean farm designed to harness deep waters for sustainable, high-quality salmon production.

NZKS is a market leader, producing over 50% of New Zealand's King salmon and exporting to over 15 countries.

The company's high-value branding secures a price premium over Atlantic salmon, particularly in the food service sector with their Ōra King brand.

#### Key metrics\*

- · Annual revenue: NZ\$187\*m
- Pro-forma operating EBITDA: NZ\$24.5\*m
- Breeding programme: over 30 years of proprietary development
- Estimated annual production:
   ~6.800 7.200 metric tonnes.

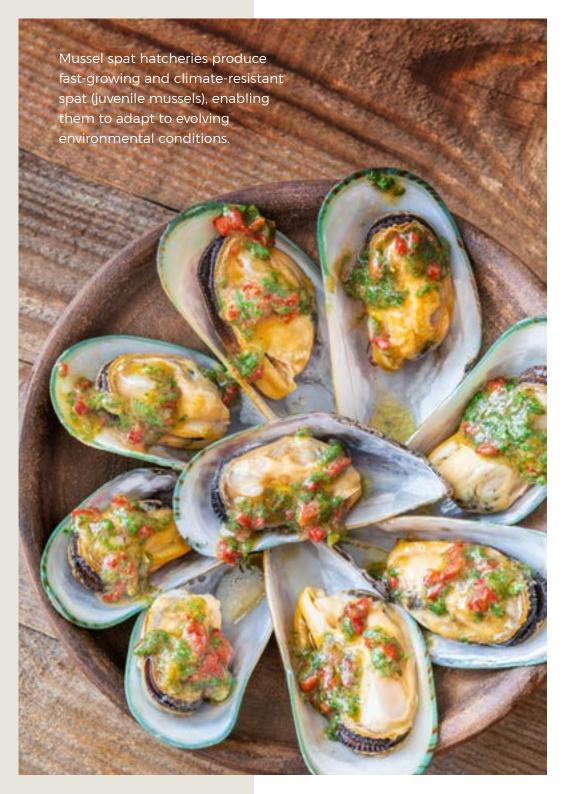
\*FY24 (year end is January)

NZKS is conducting an open-ocean pilot at a site named Blue Endeavour, 7km off Cape Lambert outside of the Marlborough Sounds, to assess the commercial viability of open-ocean farming. If successful, the site could support an expansion to 10,000 metric tonnes of production, contributing an estimated NZ\$350m in additional revenue per annum.



The full-scale commercial development would require significant investments in new infrastructure, including pens, recirculating aquaculture systems (RAS) technology, a well-boat, and processing facilities.

New Zealand King salmon is an example of sustainable, high-value aquaculture, leveraging its premium market position and advanced breeding expertise to drive future industry growth.



### GREENSHELL™ MUSSELS: SUSTAINABLE AND NUTRITIOUS

New Zealand has been expertly growing Greenshell™ mussels for more than 50 years, using some of the world's most advanced farming techniques, breeding practices and innovative, high-value processing methods.

New Zealand produces ~90,000 tonnes of mussels each year from marine farms located across the country.

New Zealand Greenshell<sup>™</sup> mussels have unique anti-inflammatory properties, and are clinically proven to aid muscle recovery.

Our established production capacity positions us perfectly to meet growing international demand for mussels, mussel powder and oil for nutraceutical products.

NZ\$388M+
IN MUSSEL EXPORT
REVENUE

December 2023

- November 2024

**Opportunities** 

To support the growing demand for mussels, a robust and reliable supply of mussel spat is necessary. The current supply of spat is constrained, with 80% sourced from the wild.

- Investment opportunities exist throughout the mussel value chain to enable downstream growth, including spat hatcheries and nurseries, farm development and value-added processing.
- New Zealand's Ministry for Primary Industries (MPI) has estimated three or more new mussel hatcheries are needed to support current and future production.
- New Zealand is a world leader in extraction and processing of mussel compounds, creating a high-value export opportunity for a range of products.

Sources: Export Statistics (2024), Aquaculture New Zealand.

#### **MARKET VALIDATION:**

# GLOBAL PRICE OUTLOOK FOR NEW ZEALAND GREENSHELL™ MUSSELS

Globally, mussel exports are valued at around US\$1b, with a net weight of 350–400 million kilograms annually. While COVID-19 impacted production and transport, New Zealand's trade value remained stable. Strong demand in developed countries helps make our mussel exports more resilient.

New Zealand exports mussels to more than 60 countries. The USA is a major market, importing NZ\$171m of mussels in the past year, and New Zealand also supplies a large share of China and Australia's mussel imports.

Food consumption patterns are evolving due to urbanisation, income growth and health factors, with a growing demand for environmentally friendly food. With a low-carbon footprint, mussels appeal to health-conscious consumers, especially in rapidly growing Asian markets where food spending is increasing.

New Zealand's mussel exports have grown from NZ\$120m in 2006 to NZ\$389m in 2024. Mussel oil, introduced in 2011, now accounts for 12% of export value.

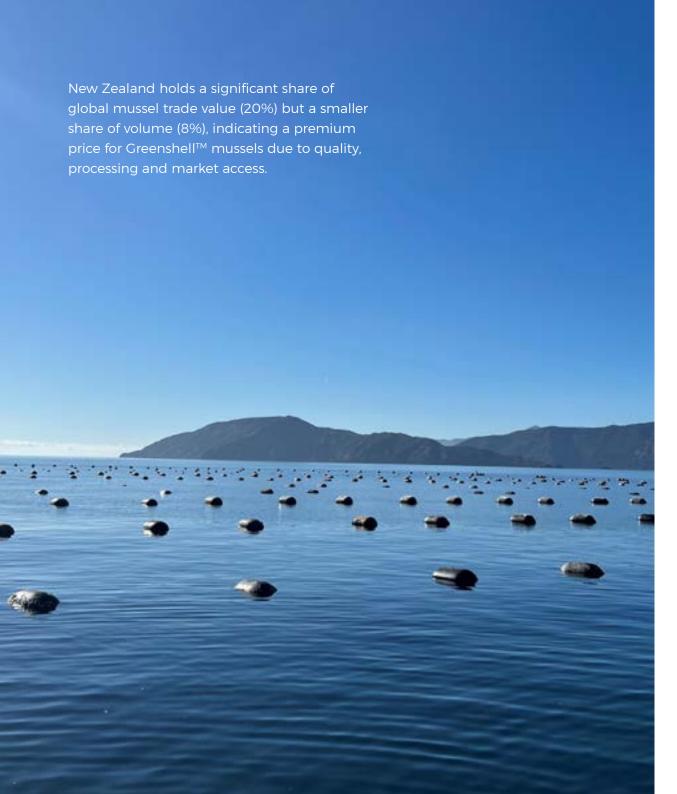
New Zealand has a successful marine bioactives sector (which includes Greenshell™ mussel extracts), built on the back of a sustainably managed aquaculture industry. Further growth opportunities exist in mussel powder and oil extraction, with Greenshell™ mussel extracts renowned for their joint health benefits. New Zealand producers are well positioned to support this opportunity and are focused on adding value.



Forecast models indicate the real unit price of half-shell exports is likely to rise by 18–36%, from NZ\$12.23 in December 2023 to NZ\$14.45-\$16.65 by 2040.

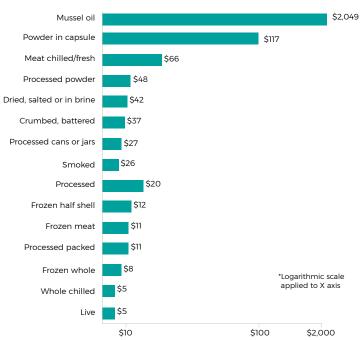
Accounting for Treasury New Zealand's expectations for domestic inflation, the nominal unit prices are forecast to increase by 65-90% between 2023 and 2040.

Increased production of New Zealand Greenshell™ mussels is unlikely to significantly impact export prices based on historic data, however this could still affect future prices.



### New Zealand produces a range of high-value products from our Greenshell™ mussels

#### \$NZ export prices per kilogram by product in 2023





View the full market validation report here.





#### **CASE STUDY:**

# SCALING MĀORI-LED AQUACULTURE: WHAKATŌHEA'S VISION FOR SUSTAINABLE GROWTH

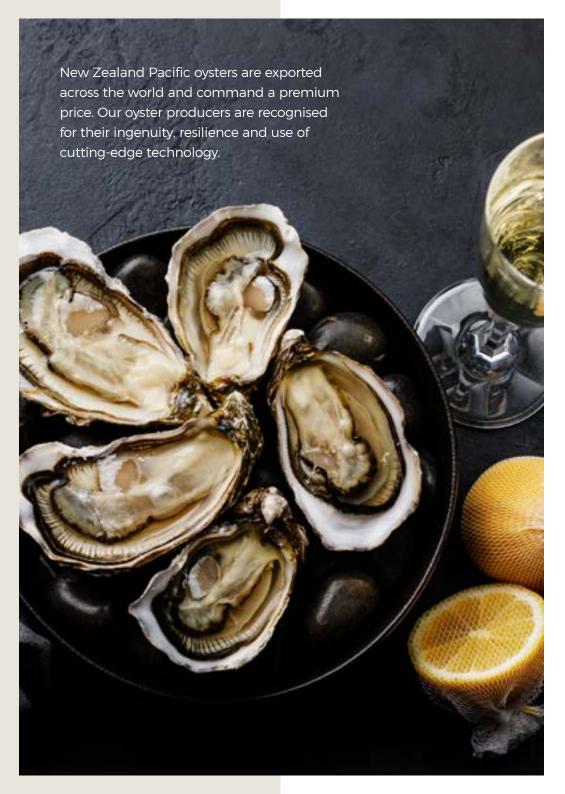
Whakatōhea Mussels (Ōpōtiki) Limited operates a Greenshell™ mussel farming and processing company in Ōpōtiki, Bay of Plenty. Established by the Whakatōhea iwi, the company set out to create long-term economic opportunities through sustainable aquaculture. It developed the world's first open-ocean mussel farm, utilising nutrient-rich waters 8.5km offshore for high-quality, fast-growing mussels.

Whakatōhea Mussels has so far established 1,520-hectare marine farm, a purpose-built facility processing 8,500 GWT annually. The company employs 217 staff and has established strong export market relationships, supplying premium mussels to global buyers.

#### Company highlights:

- Marine farm area: 3,800 hectares consented, with 60% still to be developed
- Rapid growth cycle: Mussels reach maturity within 12-18 months
- Sustainability: Consistent mussel spat supply and future expansion plans
- Growth forecast: Substantial increase in CAGR forecast in both processing and sales.

Future water space approvals will support continued marine farm expansion, enabling increased production and exponential export growth. Rising global demand for premium New Zealand mussels presents further opportunities for innovation and product development.



NZ\$12.9M+
IN OYSTER EXPORT
REVENUE

December 2023

- November 2024

# NEW ZEALAND OYSTERS: PREMIUM, POPULAR, DELICIOUS

New Zealand has the space and the technology to boost production of its premium, export-quality oysters.

New Zealand produces ~1500 tonnes of premium Pacific oysters per annum. Pacific oysters are the main species of oyster produced in New Zealand.

Innovative farming systems developed in New Zealand are enabling faster, more robust automated solutions for farmers both locally and internationally.

New Zealand has developed hatchery-reared spat to complement our wild-sourced supply, helping create uniform and resilient oysters. To grow and develop the oyster sector further, additional hatcheries will be required to support planned growth.

#### **Opportunities**

- There is potential to convert existing marine farm spaces that are no longer suitable for some species due to changing climate conditions into oyster farms.
- New Zealand has the ability to transition from traditional farm systems to innovative, modern solutions, enabling oyster farming to be more productive and to thrive in dynamic environments.

Sources: Open Ocean (2023), Cawthron Institute

# EMERGING OPPORTUNITIES

### PIONEERING NEW FRONTIERS

New Zealand is a world leader in high-value marine extracts, land-based solutions and blue tech. Discover the latest investment opportunities in aquaculture as we continue to innovate.

#### Seaweed and microalgae

Global seaweed production has more than doubled in the past 20 years, with farming producing the majority of the world's supply.

New Zealand is in a unique position to capitalise on this, as our vast coastline and cool waters are ideal for seaweed farming.

Our seaweed sector is growing rapidly, with early-stage pilot farms around the country producing diverse products.

These include biostimulants to maximise crop growth, functional ingredients for wellbeing supplements, and microalgae for pharmaceuticals.

#### Blue tech

New Zealand has an innovative and growing blue tech sector that focuses on data capture, monitoring, farming systems and land-based solutions. In fact, we're world leaders in mussel and oyster farming systems.

Through targeted investment and international collaboration, there are further opportunities to export our know-how to the world.

#### Farming kingfish

New Zealand has successfully developed a commercial-scale RAS facility that aims to produce over 600 tonnes of yellow-tail kingfish per annum. Underpinned by a multi-generational brood stock programme and commercial-scale hatchery, there are investment opportunities to support the scale up of this fast-growing species both domestically and internationally.

Working alongside the aquaculture industry, New Zealand has developed a reputation for being open to trying new things. We're an innovation hotspot, with world-class research institutes that regularly attract international collaborations, growing the sector and solving industry-wide global challenges.

#### **Future opportunities**

Researchers and industry partners are exploring the commercial viability of new aquaculture species including scallops, snapper and hāpuku (groper). Supported by investment in novel and adaptable farming systems, these future opportunities present high-value, sustainable growth opportunities to support a growing global population. New Zealand has also established several niche aquaculture species including pāua (abalone) and whitebait that present an opportunity for further development providing diversity and resilience to the sector.



# DISCOVER NEW ZEALAND'S EMERGING AQUACULTURE PRODUCTS

High-grade marine bioactive compounds are sourced from our famously clean waters and expertly extracted. These are being used in a variety of ways to improve wellbeing and treat disease.



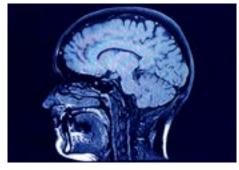


New Zealand's marine collagen market is projected to grow significantly, as collagen is the basis for supplements for skin, joint health and cosmetics.



Greenshell™ mussel extracts: a billion-dollar potential industry

Greenshell™ mussel extracts account for more than 80% of the marine bioactives market. They are widely recognised for their health benefits, particularly for joints and inflammation. As this lucrative industry continues to grow, New Zealand's sustainable farming practices give us a competitive edge.



Algal biotechnology: medical potential

New Zealand is leading the way in the discovery of new compounds derived from algae. This includes neosaxitoxin, found in certain marine organisms, that holds promise for novel therapeutic applications, and could lead to advancements in medical treatments, particularly in neurology.



Premium pet food: a healthier choice

New Zealand fish oils and mussel extracts are now commonly incorporated into pet care products due to their recognised health benefits. This reflects a global shift towards premium, natural pet food products with high nutritional value.

### INVEST NEW ZEALAND: A GLOBALLY INTEGRATED TEAM





Meet the Invest New Zealand Aquaculture specalists here. Invest New Zealand's internationally connected, deal-focused team is your gateway to New Zealand's high-growth investment opportunities.

Our global investment specialists have deep industry connections across the country, offering independent, trusted advice and access to a robust pipeline of carefully prepared deals.

We work in deal teams, collaborating to originate opportunities and drive successful investment outcomes.

And, with specialists based around New Zealand and the world, the advice and support you need is never far away.

#### We add value by:

- preparing a wide pipeline of investable deals across New Zealand's growth sectors
- developing the feasibility of business cases and deal collateral
- ensuring business model viability in a local market context
- connecting you with investments that match your requirements
- making connections to relevant partners up and down the supply chain
- facilitating partnerships with other parts
  of the New Zealand Government and Māori
  entities, guiding you on when, where and
  how to connect.



#### As the world leader in sustainable aquaculture, New Zealand is the smart choice for your investment.

New Zealand's vast sea space and geographic advantages create the ideal location to explore the next generation of sustainable aquaculture development. We also possess the technology, expertise and ambition to make an impact far beyond our own shores.

New Zealand's cooperative approach and supported business environment will ensure your investment experience is a seamless one.

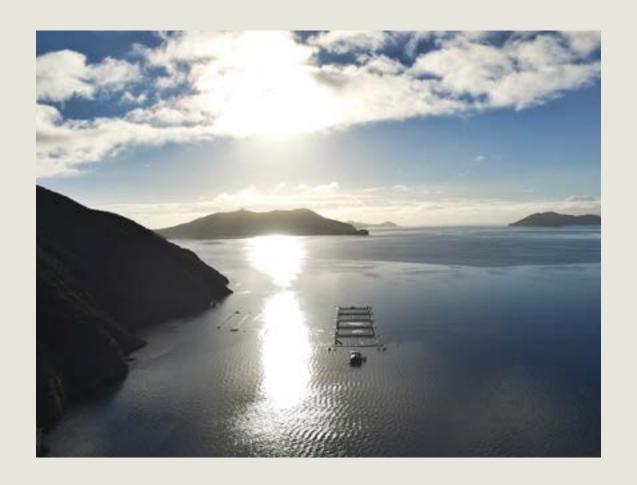
And, if you're looking to invest in New Zealand businesses or production opportunities, we're ready to work with you.

Invest New Zealand supports companies, investors and investees to grow, enable and navigate New Zealand aquaculture opportunities.

Join us as we take this growing sector to the next level.



Learn more about New Zealand's Aquaculture sector here.



Photography: Aquaculture NZ, FlipFarm Systems, Getty Images, Miles Holden, New Zealand King Salmon, NZ Story, Tātaki Auckland Unlimited, Wellington NZ, Whakatōhea Mussels (Ōpōtiki) Limited





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