Nelson Tasman Blue Economy

Our Economy at a Glance

Unless otherwise stated, all figures throughout this document are from the Nelson-Tasman Regional Economic Briefing, the Nelson Tasman Productivity Gap and Infometrics.
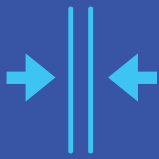
Size of economy =

$6,159m

GDP per filled job =

$105,070

Productivity gap =

$1.63bn

Closing the productivity gap =

123 years
at current trajectories

Population =

113,200

Mean earnings =

$60,048

Proportion of small businesses (<20 employees) =

96.3%

Inward migration = positive net 300 people (plus 90 natural increase)

Intellectual Capital (Knowledge Intensive Employment) = 15,538 jobs = 26.5% of total jobs

Strong opportunity for growth:
Sectors with high regional competitive advantage

Blue Economy   **Forestry**   **Horticulture**   **Science & Tech**   **Tourism**

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A note on Nelson Tasman

As a region, Nelson Tasman includes two unitary areas, whose economies are inherently connected and share many of the same aspirations. Areas like infrastructure provision, economic development, tourism and business confidence spans across both areas.

However, it is worth noting that there are some differences between the urban and rural communities.

NELSON OVERVIEW

Nelson is home to approximately 54,500 people, with a geographical area that includes Nelson City, Tāhunanui and Stoke. A small proportion of residents live in the surrounding rural areas.

Key stats:

GDP – $3,234m

Business Units – 6,720

Average household income – $92,433

Filled jobs – 30,886

TASMAN OVERVIEW

Tasman is home to approximately 58,700 people, with a urban and rural geographical area that includes Richmond, Motueka, Waimea, Golden Bay, Murchison and St Aurand.

Key stats:

GDP – $2,925m

Business Units – 7,473

Average household income – $101,596

Filled jobs – 27,732

Introduction

The Blue Economy is a central element of the Nelson Tasman economy

The Blue Economy is a central element of the Nelson Tasman economy. It is identified in the Te Tauihu Intergenerational Strategy and the Nelson Tasman Regeneration Plan 2021-2031 as a key driver and anchor sector of future economic development in the Nelson Tasman region. In many ways it will define the region's future economic distinctiveness.

According to data derived from the Infometrics Regional Economic Profile for Nelson Tasman[1], for the year to March 2022, the Blue Economy contributed $332m to the region's GDP and employed 3,700 individuals in almost 400 businesses.

The Blue Economy is a major earner of export revenue for Nelson Tasman. According to the Infometrics report Food for Thought – Export potential from the Top of the South[2] published in April 2021, the combined seafood and aquaculture production from Te Tauihu[3] accounts for more than 30% of New Zealand's economic activity in the fishing, aquaculture and seafood processing industries, despite the region making up only 2.7% of the national economy. This concentration of activity means that seafood and aquaculture is the largest export earner for Nelson Tasman, and the second-largest export earner for Te Tauihu, after wine.

The region's Blue Economy covers a range of industries, from deep sea fishing and primary production of aquaculture products, to seafood processing, marine support services and wider associated industries such as pharmaceuticals. The sector also includes academic activities, tertiary and vocational education, innovation support and cutting-edge scientific research and development into new industry segments, new products and new technologies.

The significance of the Blue Economy in Te Tauihu and Nelson Tasman is highlighted by an analysis of industry competitive advantage,[4] which demonstrates high location quotients (LQs) and high levels of growth momentum in fishing and aquaculture, as well as seafood processing.

This sector profile has been developed to provide a scan of current context, assets, challenges and components of the region's Blue economy, to inform the identification of priorities for the NRDA and its partners to deliver against the high-level statements identified in the region's strategies.

Size and Shape of the Blue Economy

Nelson Tasman has the following key institutions represented in the region:
- Aquaculture New Zealand
- Cawthron Institute
- Marine Farming Association (Marlborough)
- Ministry for Primary Industries
- Nelson Regional Development Agency
- Nelson Tasman Chamber of Commerce
- NIWA
- New Zealand Trade & Enterprise
- Plant & Food
- Port Nelson
- Seafood NZ (Wellington)
- Te Pūkenga | NMIT

Measure (Year to March 2022)	Value
GDP	$332m
Percentage of regional GDP	5%
Employment	3,688
Percentage of regional employment	6%
Business units	393
Percentage of regional business units	2.8%

Note: Because the Blue Economy is wider than the traditional ocean's economy, these figures are conservative.

moananui

Moananui, headquartered in the heart of Nelson.

Moananui brings together bold, forward-thinking organisations, driven by a collective mission to elevate New Zealand into a global leader for blue economy products, services, technology, research, and capabilities.

In Te Tauihu, we proudly house the largest and fastest growing blue economy in Aotearoa New Zealand, where Moananui assumes a pivotal role. It serves as a catalyst propelling our region forward, fostering businesses through visionary projects that enhance value, forge connections, and improve ocean health.

Background and Policy Context

Background

Globally, the Blue Economy operates in a contested and often controversial context. The environmental imperative to reduce meat consumption and land-based meat production implies an increasing emphasis on both cultivated and wild-caught seafood as a source of protein. However the sector faces a range of pressures, including management of fish stocks, increasing legislative and regulatory requirements, competition from illegal fishing and the need to effectively address issues such as bycatch, marine plastic pollution, and traditional community-based fishing rights. And, as with all sectors, there is an increasing need to transition to low or zero carbon operations.

Against this background, the Blue Economy in Nelson Tasman is faced with the challenge and opportunity, to grow its contribution to the regional economy, while improving productivity and environmental sustainability, adapting to the effects of climate change, and maintaining the sector's social license to operate. Achieving these objectives will require a range of measures, including large-scale shifts to higher-value production and value addition, significant investment in production capacity and research and development, the effective promotion of innovation in the sector, and the development of an appropriately skilled workforce.

Nelson Tasman is home to world-leading Blue Economy-focused science, research and technology development activities, by organisations such as the Cawthron Institute and Plant and Food Research.

Mana whenua iwi

Any future development of the Blue Economy sector in Nelson Tasman will need to be undertaken in context of Te Tauihu iwi and mana whenua partnership, consultation and research, including, but not limited to:

- Support for Māori business
- **T**he potential for future investment of Te Tiriti settlements into the Blue Economy
- Encouragement of traditional uses of land and water areas

Policy Context

A number of government policies, strategies and regulatory developments will have a critical impact on the future development of the Blue Economy sector. Released in 2019, the New Zealand government's Aquaculture Strategy seeks to grow the national aquaculture industry to reach revenues of $3.5b by 2035.

Other key legislative developments include the ongoing reform of the Resource Management Act, and the introduction of various pieces of legislation related to the reduction of greenhouse gas emissions and the adaptation of coastal environments to the effects of climate change.

The strategic direction of future economic development in Nelson Tasman and Te Tuihu, including in the Blue Economy, is informed by the Te Tauihu Intergenerational Strategy. The central vision of this Strategy is Tupuna Pono – Being Good Ancestors.
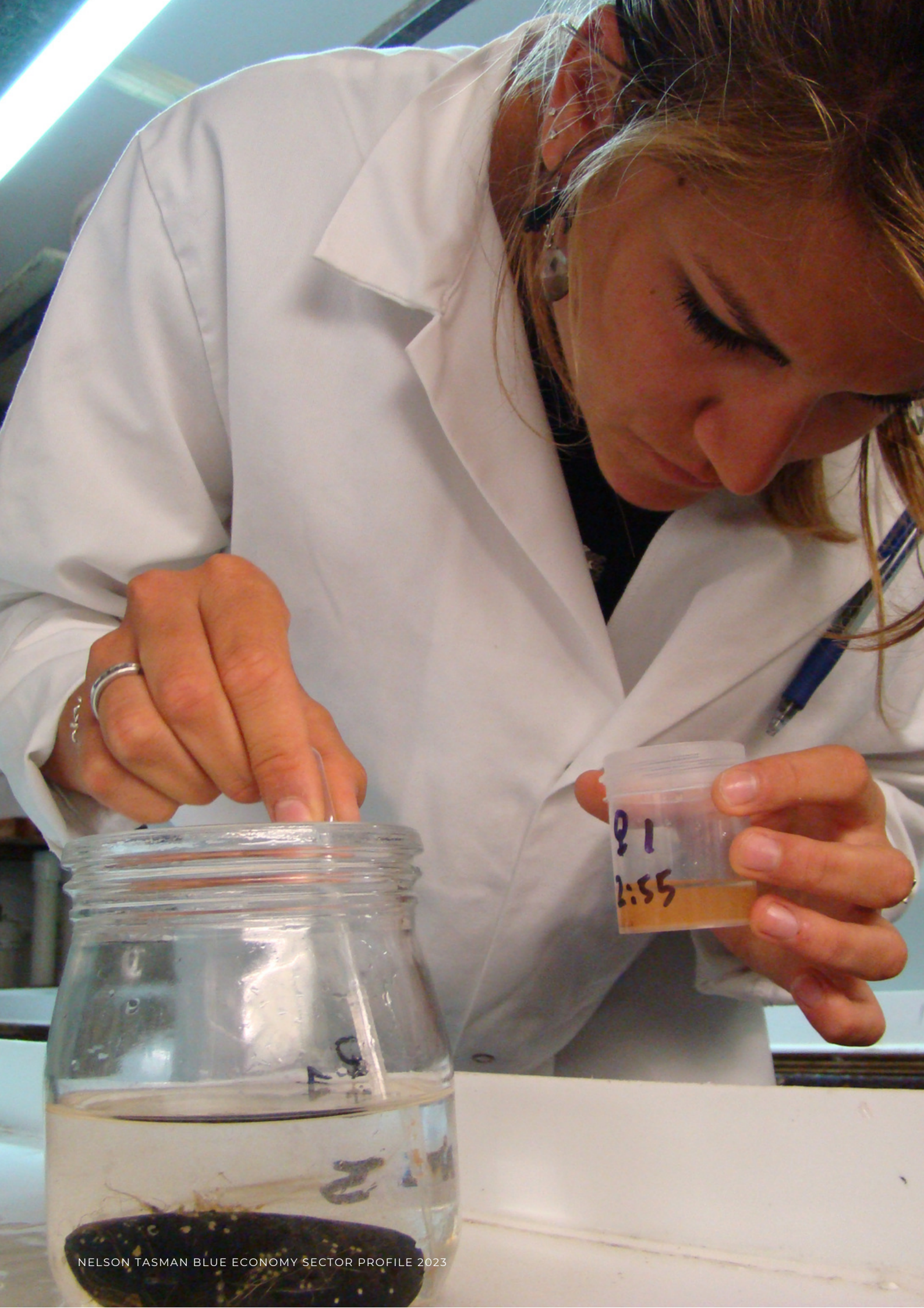
Technology and Innovation

Nelson Tasman is home to a range of institutions, programmes and projects which drive innovation in the Blue Economy sector.

Located in Nelson, the Cawthron Institute is New Zealand's largest independent science institution and provides the region with world-class research and development capability. With regard to the Blue Economy, the Institute's areas of focus include aquaculture, ocean health and seafood safety, as well as groundbreaking marine extracts for medical solutions.

The Blue Economy holds significant further growth potential for research and development, innovation and the deployment of technology, to increase the productivity of the sector in Nelson Tasman. The Science and Technology ecosystem development in Nelson will provide further impetus to the growth of the region's innovation and R&D capability.

Potential areas of focus
- New activities / species – successful commercialisation of production of finfish, shellfish, invertebrates, seaweed, algae and others, integration of land- and marine-based aquaculture
- Reporting and non-financial disclosure – emissions reporting, environmental, social and governance (ESG) disclosure requirements
- The proposed shift of salmon farming activities from the Marlborough Sounds to open ocean farming in the Cook Strait is likely to drive further uptake of innovation in the segment.

In addition, there is significant scope for Nelson Tasman companies to further uptake national support mechanisms for research and development, including those offered by Callaghan Innovation, New Zealand Trade and Enterprise and the Ministry for Primary Industries' Sustainable Food and Fibre Futures initiative (see Appendix C)

Given the labour market constraints that exist in the region (see below), the development of technology in fields such as automation and remote monitoring is likely to assume increasing importance in the sector.

Significant scope also exists for the region to support the emergence of highly specialised and potentially nationally significant innovators in fields such as marine and aquaculture engineering.

Other areas in which the deployment of technology might assist in increasing the productivity and economic contribution of the sector might include the following:
- Solutions for existing activities – pest / disease management, elimination of bycatch, environmental monitoring and data capture
- New product development, waste minimisation, vertical integration of product value chains – including human food, nutraceuticals, animal food, non-food products

Workforce Profile

Current Workforce

A high-level analysis of the workforce in the Blue Economy sector suggests a preponderance of low-skilled employment. Based on data collected in the 2018 national Census, more than 60% of employment in the sector was classified as low-skilled, while more than 50% of employees did not possess a tertiary qualification.

According to the Infometrics Quarterly Economic Monitor for the December 2022 quarter,9 the unemployment rate in Nelson Tasman was estimated at 3.0%, compared to 3.3% nationally.

This suggests that the Blue Economy sector, like many others, is competing for additional human resources in a relatively shallow pool of unemployed workers.

Further data regarding the current makeup of the Blue Economy workforce in Nelson Tasman is provided in Appendix D.

Future Workforce

Future growth and development in the Blue Economy sector will rely heavily on the availability of appropriately skilled and experienced employees.

Due to the ageing nature of Nelson Tasman's population, the overall working age population (aged 15-64 years) is set to decline significantly over the two decades to 2040, while the working age population nationally is forecast to grow over the same period. This growth will however not be sufficient to offset the decline in the overall working age population. As a result, the region will face a situation in which the number of replacement job openings (for employees exiting the workforce) remains far higher than the number of new jobs created.

Similarly, further development of the Blue Economy is also likely to require increased emphasis on the attraction of skills to the region and the retention of existing skills in the sector.

In this context, broader regional issues such as housing supply, housing and rental affordability, and infrastructure development are likely to play an increasingly important role in the ability of Blue Economy employers to attract talent into the region. The same issues are also likely to influence the region's ability to attract investment by both new and established companies in the Blue Economy sector.

These and other issues highlight the need for concerted and integrated collaboration between the public sector, iwi, industry participants, tertiary and secondary education providers, and community and youth organisations.

Further data regarding the future makeup of the Nelson Tasman workforce is provided in Appendix E.

Community Engagement

The fortunes of the Blue Economy in Nelson Tasman are inextricably linked with those of the region's coastal communities. In many communities, marine-related industries are major employers and key supporters of community wellbeing initiatives. At the same time, in certain coastal communities, resistance to inshore aquaculture activities is a constant feature of engagement between community members and industry participants.

Various initiatives are already in place to promote engagement between the aquaculture industry and local communities. It is critical that these initiatives be maintained and extended as the industry expands its activities in the region.

Similarly, all segments of the Blue Economy sector will need to consistently undertake their stakeholder engagement activities according to global best practice standards, in order to retain broad community support.

Appendices

Export data is sourced from Stats NZ and Aquaculture New Zealand, and is quoted primarily for Te Tauihu, due to the lack of detailed verifiable data concerning exports by source.

Appendix B: Further technical detail regarding the composition of the Blue Economy

In this paper, the Blue Economy sector comprises the below industries.

Industry	ANZSIC Code
Longline and Rack (Offshore) Aquaculture	A020100
Caged (Offshore) Aquaculture	A020200
Onshore Aquaculture	A020300
Rock Lobster and Crab Potting	A041100
Prawn Fishing	A041200
Line Fishing	A041300
Fish Trawling, Seining and Netting	A041400
Other Fishing	A041900
Other Agriculture and Fishing Support Services (partial inclusion @ 40%)	A052900
Seafood Processing	C112000
Shipbuilding and Repair Services	C239100
Boatbuilding and Repair Services	C239200
Water Freight Transport	I481000
Stevedoring Services	I521100
Port and Water Transport Terminal Operations	I521200
Other Water Transport Support Services (partial inclusion @ 50%)	I521900
Customs Agency Services (partial inclusion @ 50%)	I529100
Freight Forwarding Services (partial inclusion @ 50%)	I529200
Other Warehousing and Storage Services (partial inclusion @ 50%)	I530900
Scientific Research Services (partial inclusion @ 40%)	M691000
Surveying and Mapping Services (partial inclusion @ 40%)	M692200
Engineering Design and Consulting Services (partial inclusion @ 40%)	M692300
Other Specialised Design Services (partial inclusion @ 40%)	M692400
Scientific Testing and Analysis Services (partial inclusion @ 40%)	M692500

Appendices

The primary source of GDP and employment data used in this analysis is the Infometrics Regional Economic Profile for Nelson Tasman, which provides data according to the Australia New Zealand Standard Industry Classification (ANZSIC) to the level of 500+ industries.

Additional modelling was also undertaken to include certain segments of the following industries, as it is assumed that significant elements of these industries are focused on the Blue Economy in the region:

- Agriculture and Fishing Support Services
- Transport, Postal and Warehousing
- Professional, Scientific and Technical Services

Based on the economic and employment data available, it is not possible to definitively identify the percentage of services provided by these industries to the Blue Economy. As a result, a fixed percentage of a selection of relevant sub-industries has in each case been assumed as being provided to the Blue Economy. The percentages applied were 50% in the case of sub-industries within the Transport, Postal and Warehousing industry, and 40% in the case of sub-industries within the Agriculture and Fishing Support Services and Professional, Scientific and Technical Services industries. These percentages are considered realistic and sufficiently conservative estimates of the contribution of these industries to the Blue Economy in Nelson Tasman.

For the purposes of this analysis, the Blue Economy in Nelson-Tasman for the most part excludes those elements of the sector located in Marlborough. At the same time, it is acknowledged that in the aquaculture segment of the sector, the bulk of primary production for both GreenshellTM Mussels and Pacific salmon is located in the Marlborough Sounds, while Nelson-Tasman hosts significant levels of processing and export activity.

The Blue Economy sector excludes marine-based tourism and passenger transport activities, as these are considered to fall primarily within the region's Visitor Economy.

Appendix C: Government Support Mechanisms

Callaghan Innovation is the New Zealand government's innovation agency. It provides support and funding for innovation and research and development. In Nelson Tasman, Callaghan's services are delivered to the local community through the Regional Business Partners programme, hosted by NRDA.

New Zealand Trade and Enterprise (NZTE) is the government's international business development agency. It supports exporters in accessing overseas markets, attracting foreign investment and enhancing New Zealand's business reputation internationally.

The Ministry for Primary Industry's Sustainable Food and Fibre Futures (SFFF) programme supports innovation in New Zealand's food and fibre sectors, by co-investing in industry development initiatives that make a positive and lasting difference.

Appendices

Appendix D: Further data regarding the current makeup of the Blue Economy workforce

In 2020, more than 30% of the Blue Economy workforce was aged over 50, while approximately 20% was aged below 30. A further 25% of employees was aged between 40 and 50. Older employees are also likely to be those possessing higher qualification levels.

Māori, Pasifika and Asian employees make up significantly higher percentages of the Blue Economy workforce than is the case across the Nelson-Tasman economy as a whole. Historical evidence suggest that these employees are also likely to possess lower qualification levels, and be over-represented in lower-skilled roles, than the sector average. The sector also displays a relatively high level of gender disparity, with male employees consistently making up more than 60% of total sector employment.

According to the June 2020 population estimates from Stats NZ, over the year to March 2020, Nelson-Tasman's population increased by 2.1% to 111,000, with 94% of this increase arising from net migration. At the same time, the internal distribution of the region's population appears to be changing somewhat, with data on net internal migration flows in 2020 showing a net decline in Nelson's population and a net increase in the population of Tasman district (https://www.infometrics.co.nz/kiwis-shifting-from-cities-to-the-regions/).

Appendix E: Further data regarding the future makeup of the Nelson Tasman workforce

Future Workforce

Between 2021 and 2040, the overall working-age population in Nelson Tasman is forecast to decline by approximately 13,500 individuals, while the Māori working-age population is forecast to increase by more than 2,000 individuals

According to the Infometrics Regional Economic Profile for Nelson Tasman, in 2019, the educational attainment of Nelson Tasman school leavers was as follows:

Education level	Māori	Total Nelson-Tasman
Below NCEA Level 1	18%	10%
NCEA Level 1	16%	11%
NCEA Level 2 or higher	66%	79%

For the year to March 2020, the NEET rate (the percentage of potential employees aged 15-24 who are not in employment, education or training) in the region was in excess of 11%.

Reference Documents

- Te Tauihu Intergenerational Strategy
- Nelson Tasman Regeneration Plan 2021-2031
- NRDA Statement of Intent 2021-2024
- New Zealand Government Aquaculture Strategy
- Top of the South - Identiying Competitive Advantages, Benje Patterson
- Infometrics Te Matapae report
- Infometrics Food For Thought Report
- Aquaculture New Zealand
- Cawthron Institute
- Infometrics Regional Economic Profile for Nelson Tasman, January 2023