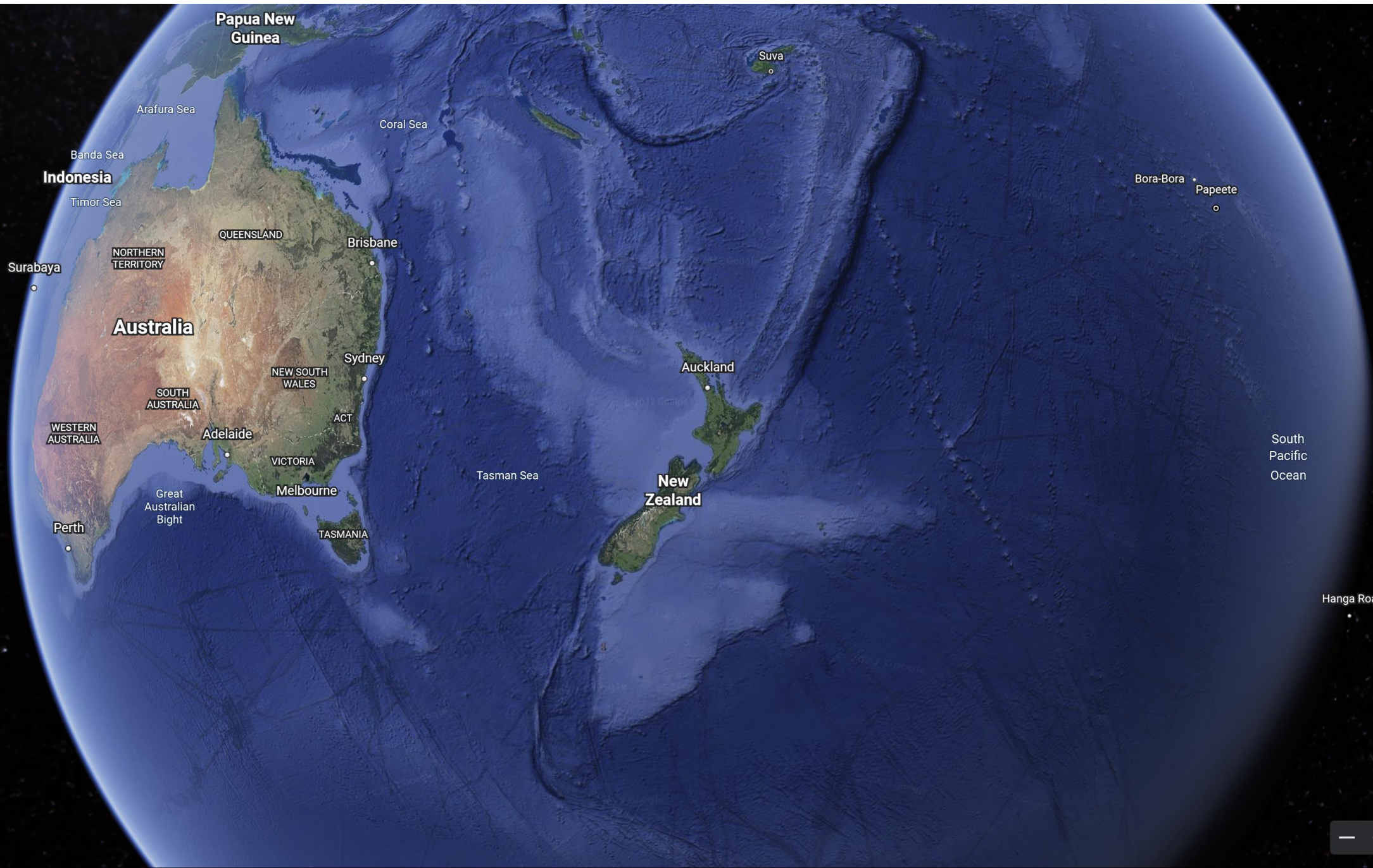


SUSTAINABLE
SEAS

Ko ngā moana
whakauka

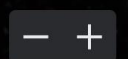
Te Au o Te Moana

Sustainable Seas National Science Challenge



South Pacific Ocean

Hanga Roa



3D







Pre - 1840

- Management rights held by hapū (sub tribe)
- Access constrained by recognised rules
- Sustainability indicators utilised (tohu)
- Access managed by experts (tohunga)
- Breach of rules subject to penalties (utu)

910. VOYAGES - COOK. FIRST.

69567½



Te Tiriti o Waitangi 1840

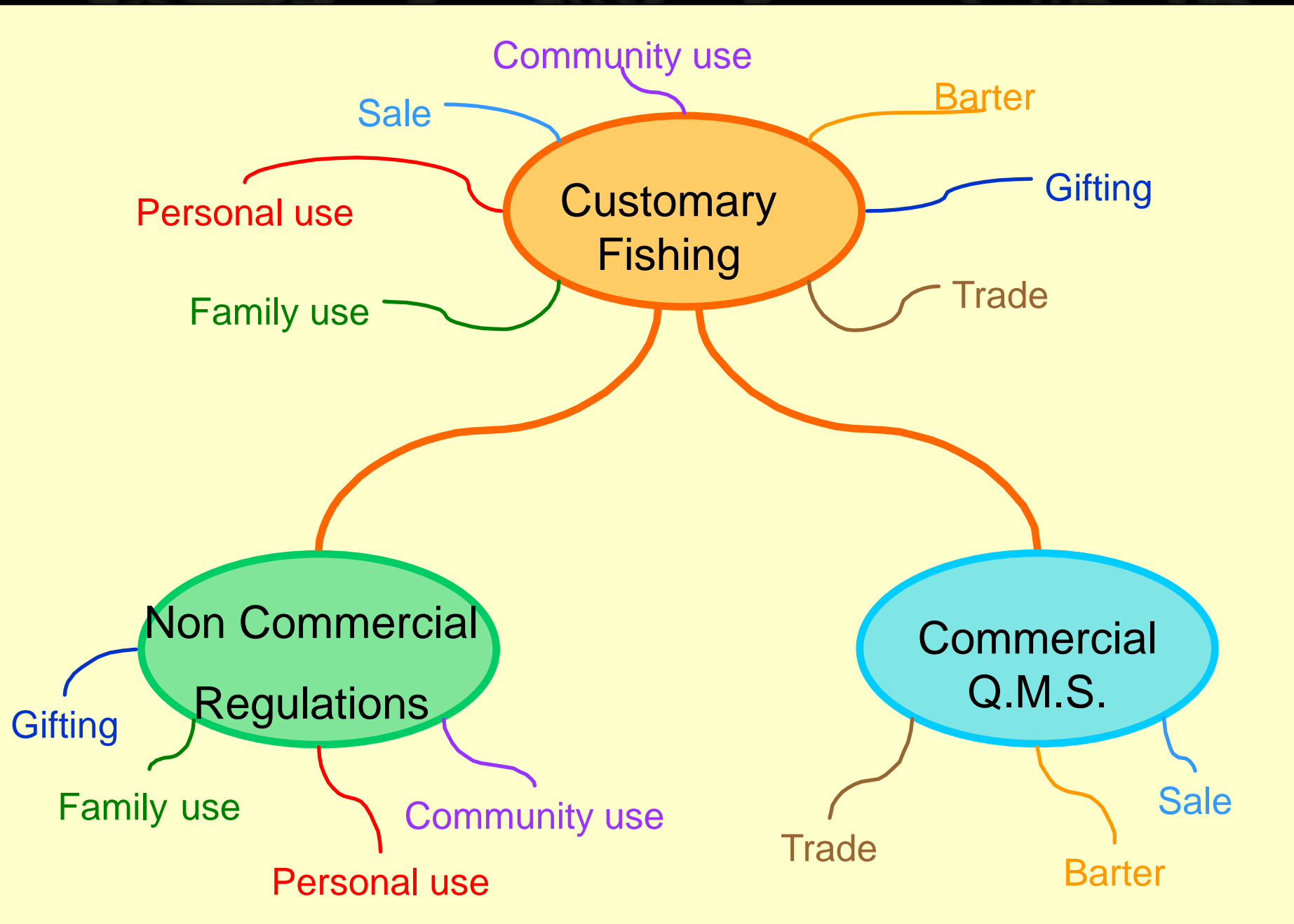
- **Article I: Crown right to govern**
- **Article II: Guarantees full, exclusive undisturbed possession of Lands, Estates, Forests & Fisheries (all their treasures) to Māori**
- **Article III: Extends rights & duties of British to Māori**

Post 1840

- Crown pass various Acts that preclude Māori from exercising “full exclusive, undisturbed possession...”
- Treaty of Waitangi Act 1975 – the NZ approach
- 1983 Fisheries Act said “Nothing in this Act shall affect Māori fishing rights”
- Nature of the Māori fishing right was not defined
- 1986 Quota Management System (QMS)- property right to commercial fishers, share for non commercial users
- Māori appeal to the High Court
- Results in judicial interpretation of Māori fishing rights
- Māori and Crown negotiations result in:
 - Māori Fisheries Act 1989 – first step [10% allocation of existing quota to Māori, Taiāpure Reserves]
 - Treaty of Waitangi (Fisheries Claims) Settlement Act 1992

Treaty of Waitangi Settlement Act

- Settled all claims to fishing rights made by Māori under Article II of the Treaty of Waitangi
- Split Māori fishing rights into non-commercial and commercial components
- Non-commercial - Provision for customary food gathering; Mātaitai Reserves
- Commercial - Quota and Fishing Assets; 20% of any new quota; Input & participation in fisheries management

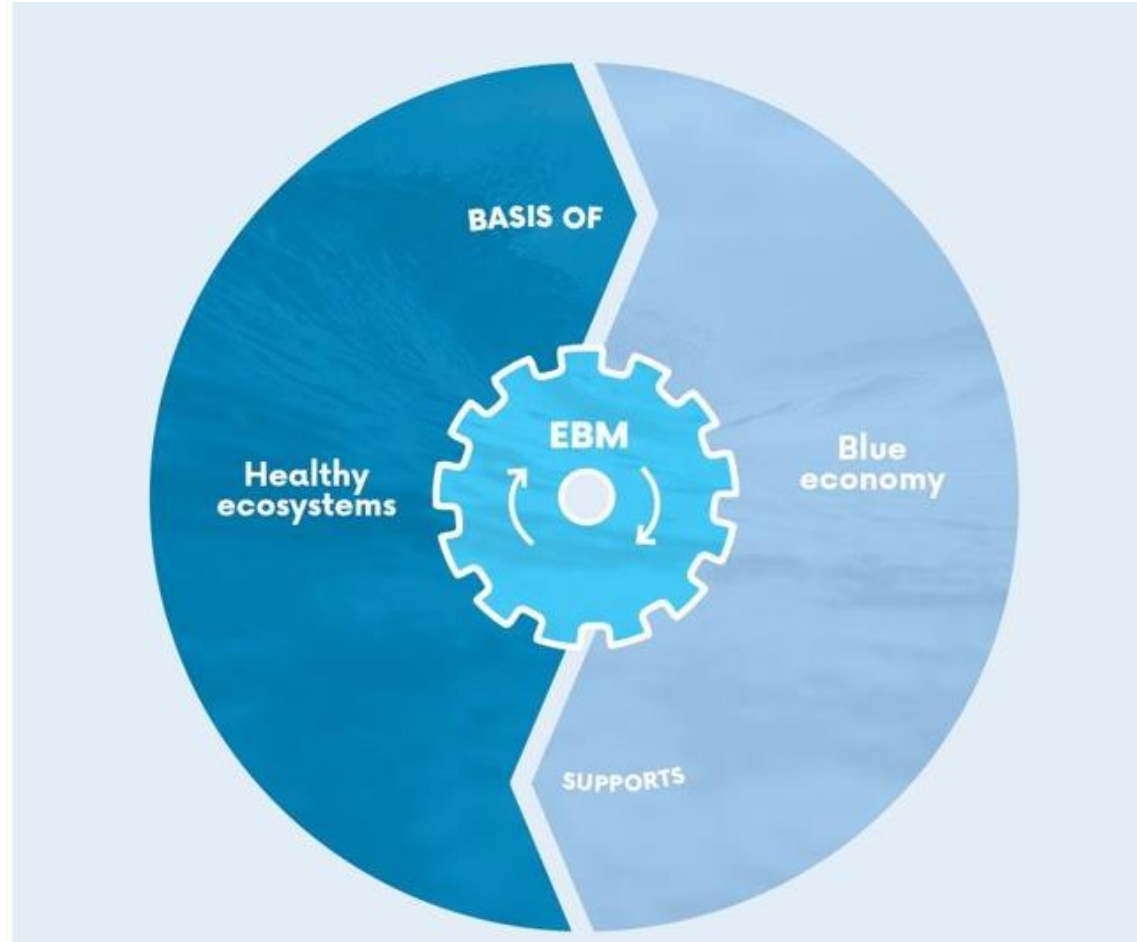


SUSTAINABLE
SEAS

Ko ngā moana
whakauka

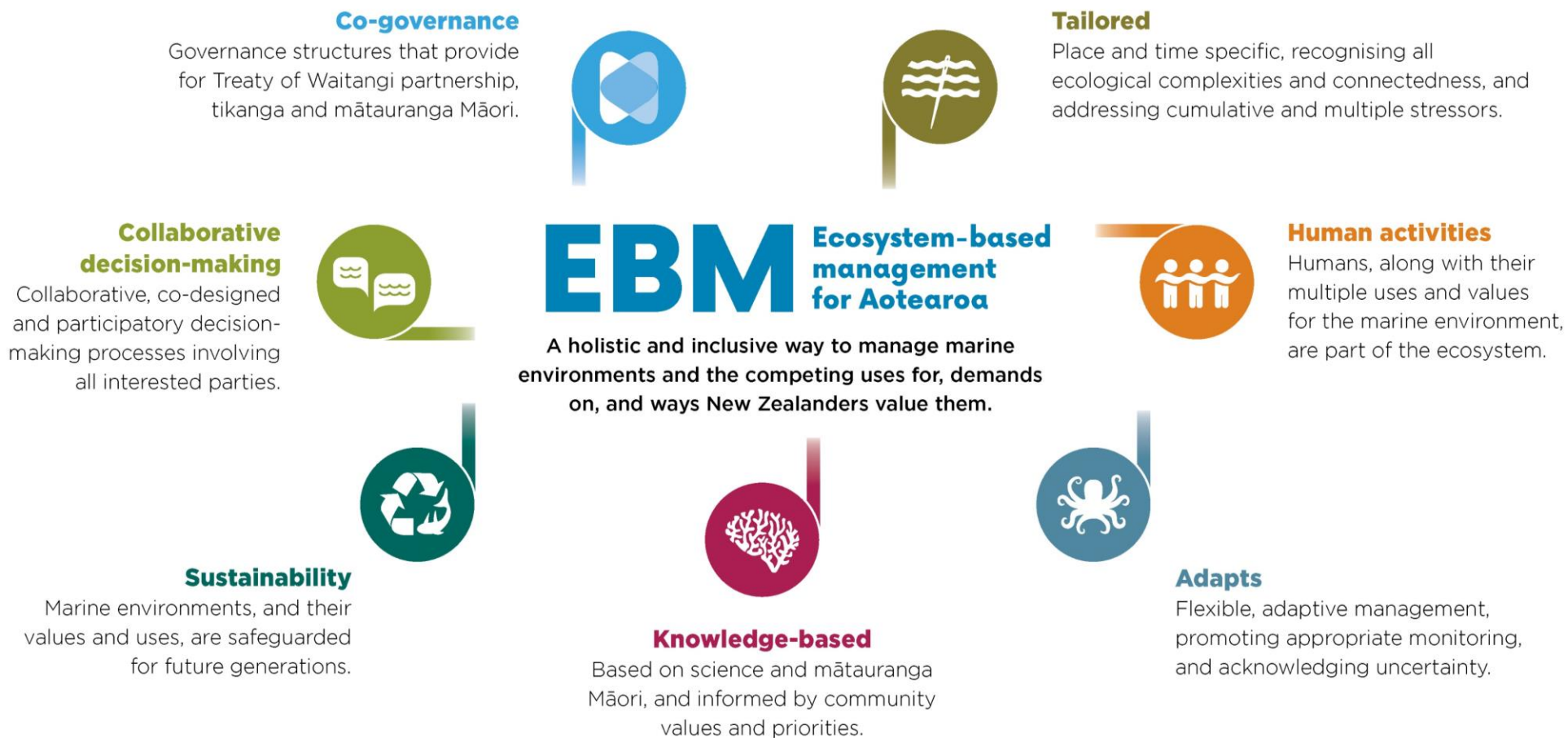
Sustainable Seas National Science Challenge

“To enhance utilization of marine resources within environmental and biological limits”

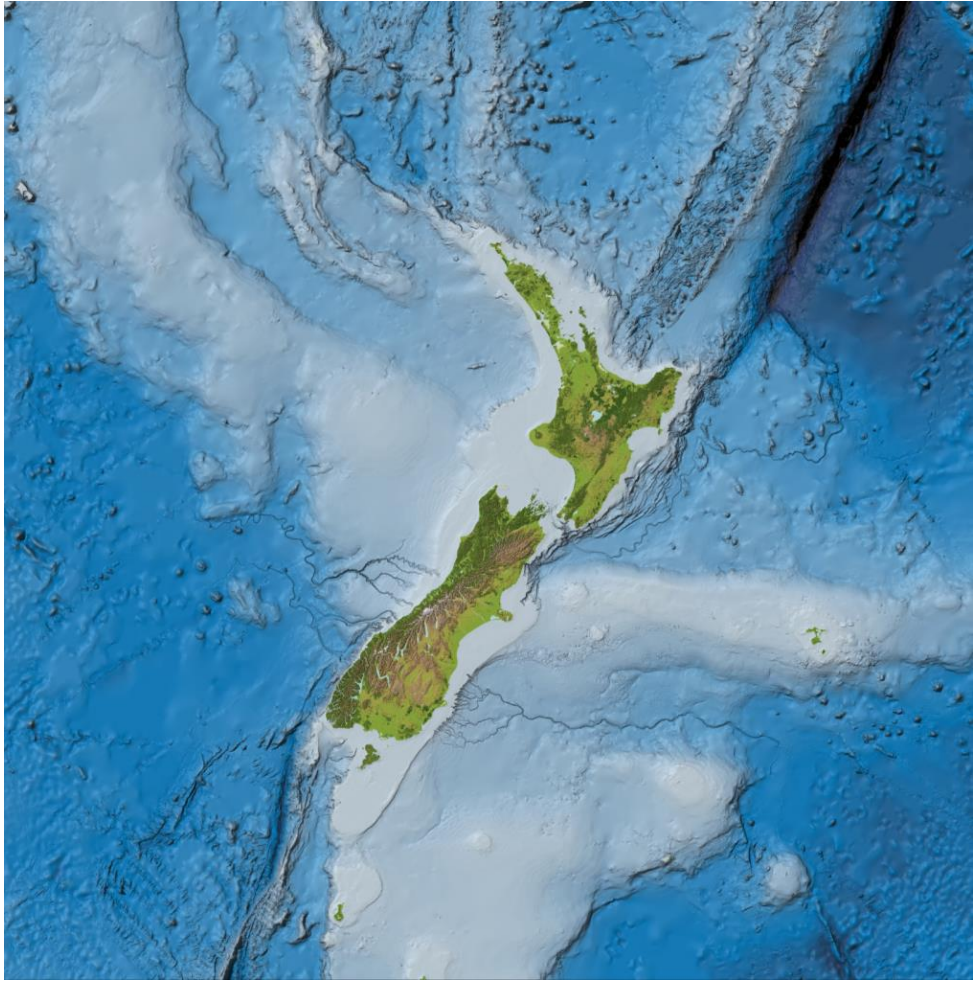


‘transformation of Aotearoa New Zealand’s ability to enhance our marine economy, and to improve decision-making and the health of our seas through ecosystem-based management’.

We have developed – with input from Māori partners – a definition and principles for EBM for Aotearoa. These are a work in progress, and will continue to evolve.



Two Worlds Lens



He Waka Taurua

Moana/Sea
Contextual issues

Hoe – Māori tools, actions and approaches

Waka Māori –
worldviews, knowledges
and values

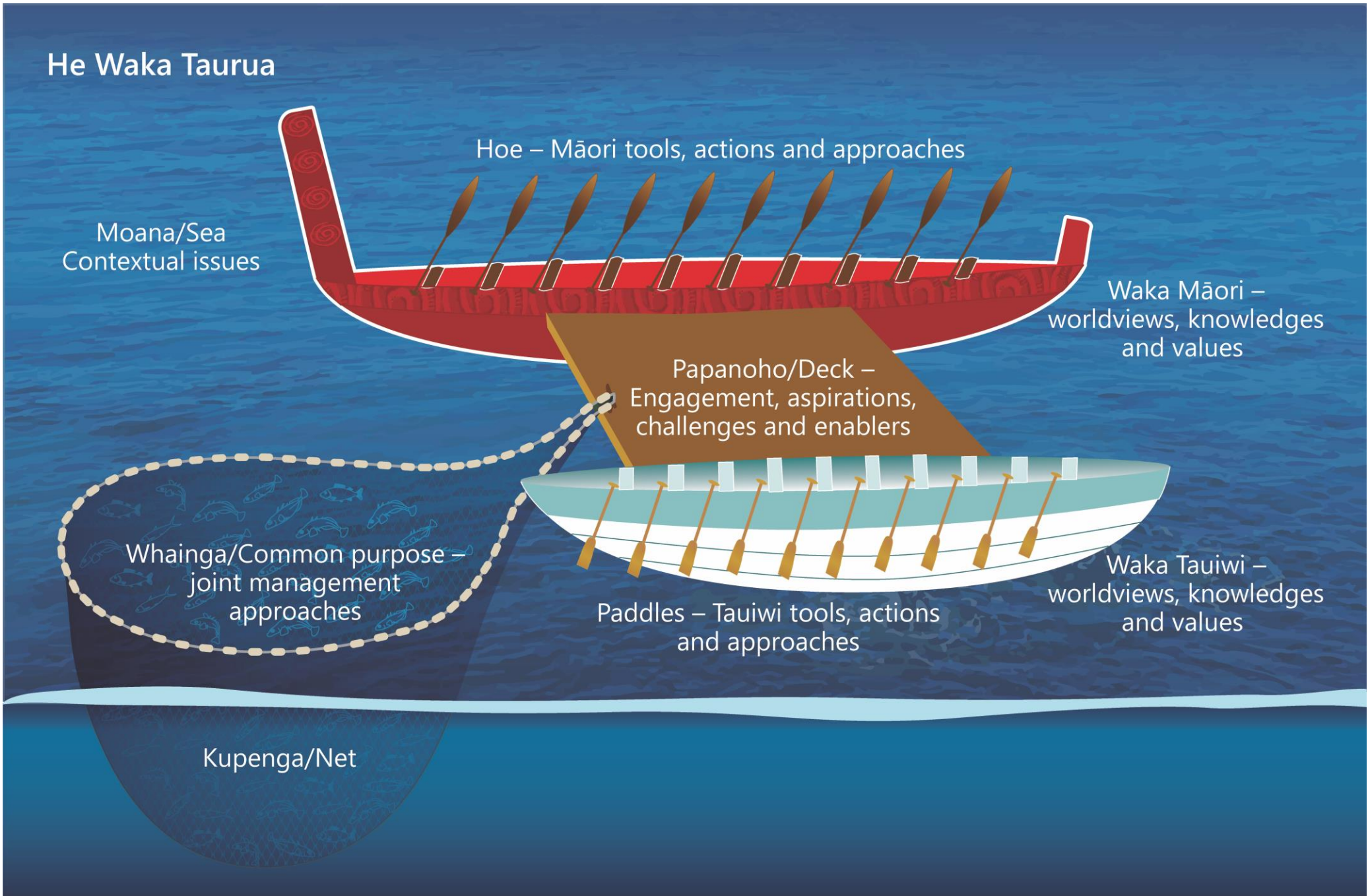
Papanoho/Deck –
Engagement, aspirations,
challenges and enablers

Whaingā/Common purpose –
joint management
approaches

Paddles – Tauwiwi tools, actions
and approaches

Waka Tauwiwi –
worldviews, knowledges
and values

Kupenga/Net



Māori Aspirations

- Explore & apply Māori knowledge for improvements to marine management
- Restore Treaty Partnership
- Explore new commercial marine interests and opportunities
- Application of Māori commercial interests based on Māori knowledge & practice
- Ensuring our research empowers and enables Māori communities





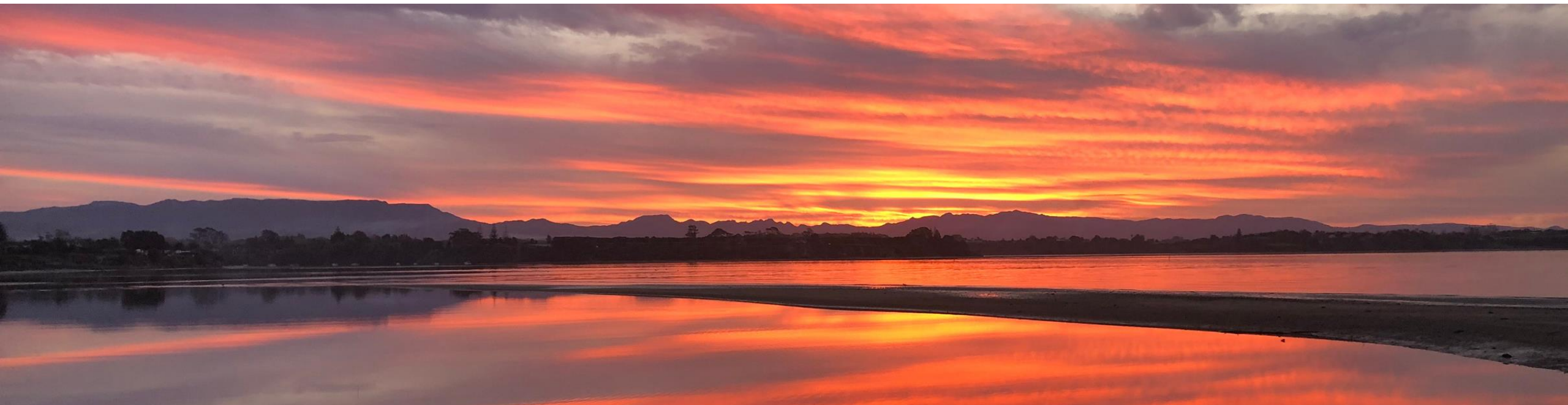
How does this work?

- Reclaiming & restoring knowledge & practice of kaitiakitanga
- Supporting tribal groups in decision-making
- Understanding & exploring the potential of Māori approaches to economy
- Lore & law – enablers & barriers
- Providing for Treaty-based governance & management



NGĀ TOHU

RECLAIMING AND PRESERVING INDIGENOUS KNOWLEDGE OF TE AO
TUROA



WHAKATINANA



Co-Develop a process to reclaim ancestral knowledge of Te Ao Turoa



Understand reclaimed ancestral knowledge of Te Ao Turoa through practice and reflection



Utilize knowledge held in te Ao Turoa to reframe environmental assessment

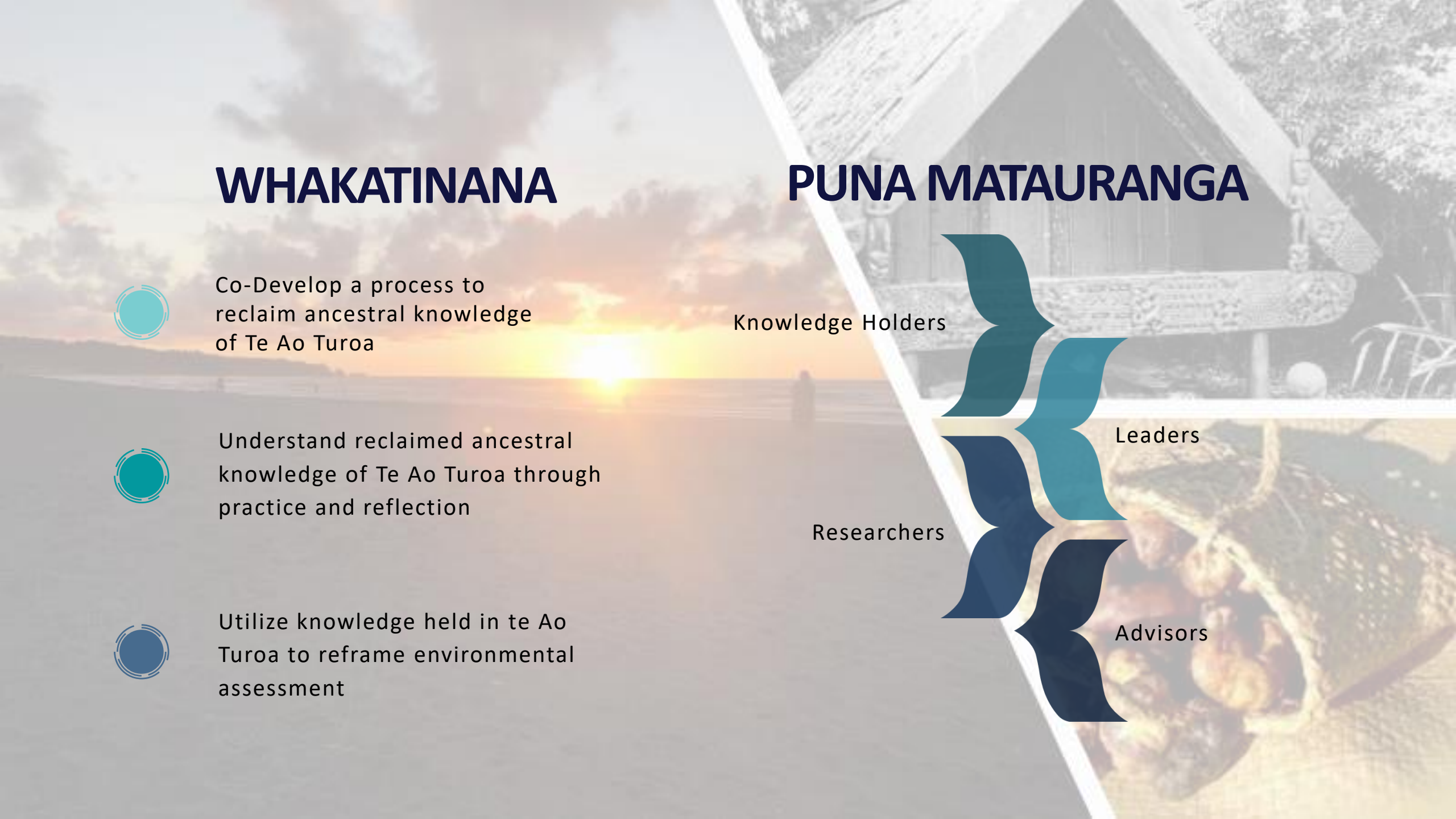
PUNA MATAURANGA

Knowledge Holders

Leaders

Researchers

Advisors



Nga Whetu



Mata o Hina



Tama Nui
te Ra



Enabling Matauranga



Energy
Transfer &
Process



Wainuiatea: Natural
Cycles of Energy
Transfer



Tau: Inquiry of
natural cycles,
kuaka, papaka,
paua

Wao Atua

Constants Through Space
& Time.

Nga Kete o te
Whare Wananga

Wao Tupuna

Understanding of processes
through time and space,
Knowledge Storage & Transfer.



Wao Tangata

Inquiry & Practice.

Data Capture



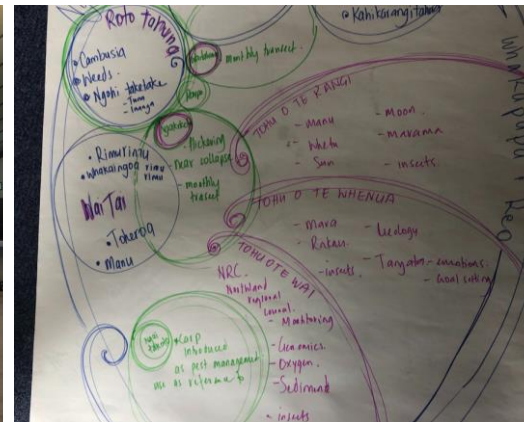
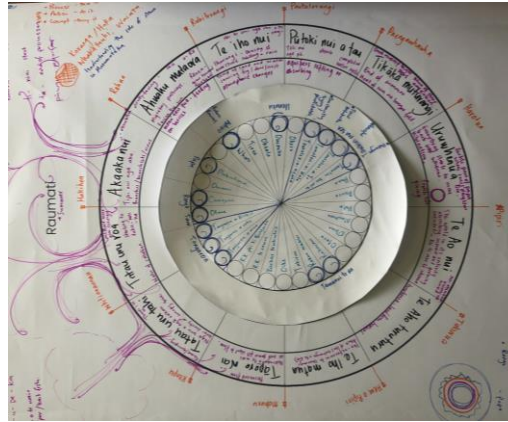
Knowledge &
Data Storage &
Dissemination

VISION MATAURANGA

Partnerships

Distinctive
Contribution

Meaningful
Outcomes



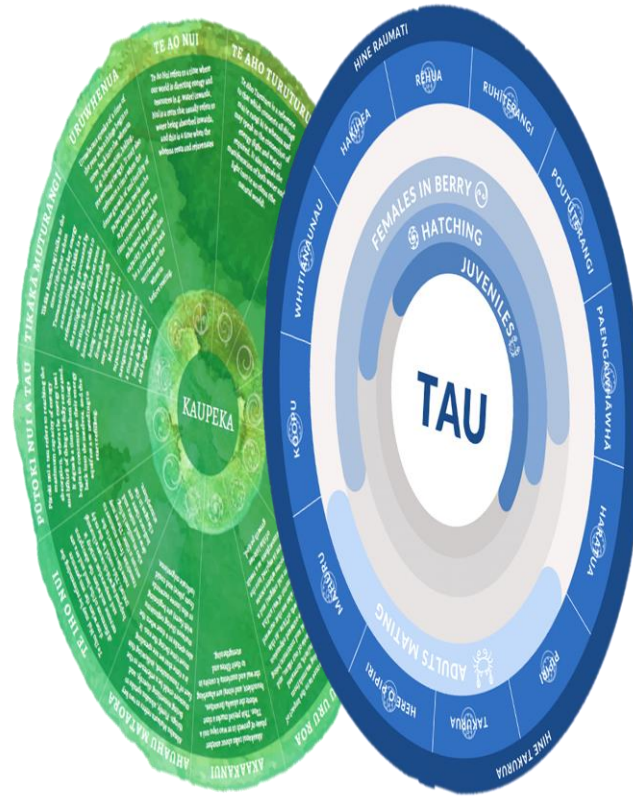
Wao Atua

Constants Through Space & Time.



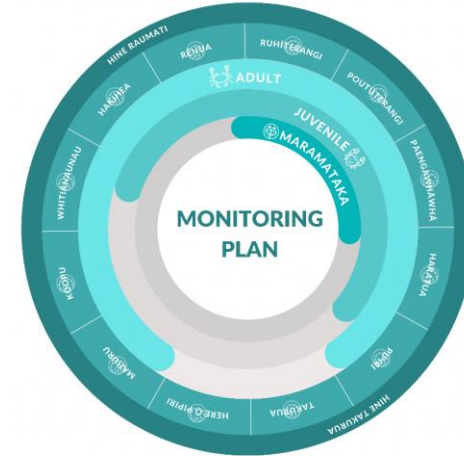
Wao Tupuna

Understanding of processes through time and space, Knowledge Storage & Transfer.

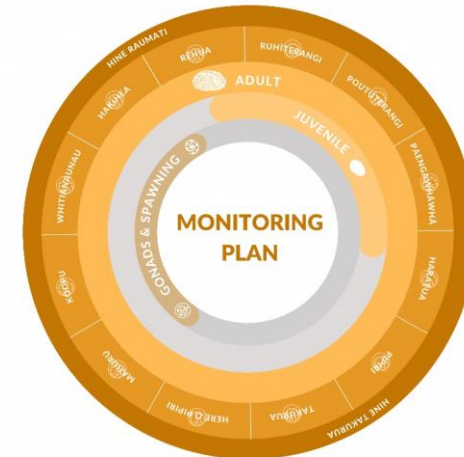


Wao Tangata

Inquiry & Practice.



- MARAMATAKA**
Seasonal approach to trapping both adults and juveniles crabs
- Trapping marked by whetū dictating the time of the year we are catching
- MAHI**
Adult trapping utilising box traps, as often as possible, identifying adult activity and ground truthing tau for Tauranga Moana. Weather and activity limiting trapping in winter.
- Juvenile trapping using pipe traps and shore searches, identifying juvenile early life migration and locations within Tauranga Moana. Spanning possible times juveniles are seen.
- Trapping adults and juveniles over full marama cycles, identifying where most successful efforts are, limited by crab activity and weather windows.



- MARAMATAKA**
Seasonal approach to trapping both adults and juveniles pāua
- Trapping marked by whetū dictating the time of the year we are catching
- MAHI**
Adult monitoring of growth rates to occur per marama regularly throughout the tau to track growth rates of tagged pāua.
- Searching more regularly during this time for juveniles during this time to note their arrival timing into the area, and to identify habitats required to be protected.
- Diving surveys during this time to take advantage of the adults being less cryptic, developing a gonad index of development and the timing and triggers of spawning.

Whai rawa,
whai mana,
whai oranga:
Creating a
world-leading
indigenous blue
marine
economy



Literature

Past and present approaches used by Māori and indigenous people to manage marine ecosystems and economic activity



Case Studies

Case studies of Māori businesses and organizations in the marine economy: iwi; hapū; whanau. Activities: commercial; customary; and marine governance.



Survey

Undertaking a survey across different stakeholders in the Māori marine economy



Engagement

Kanohi ki te kanohi – Face to face relationships and connections



**IWI COLLECTIVE
PARTNERSHIP**



Whakatōhea
Māori Trust Board



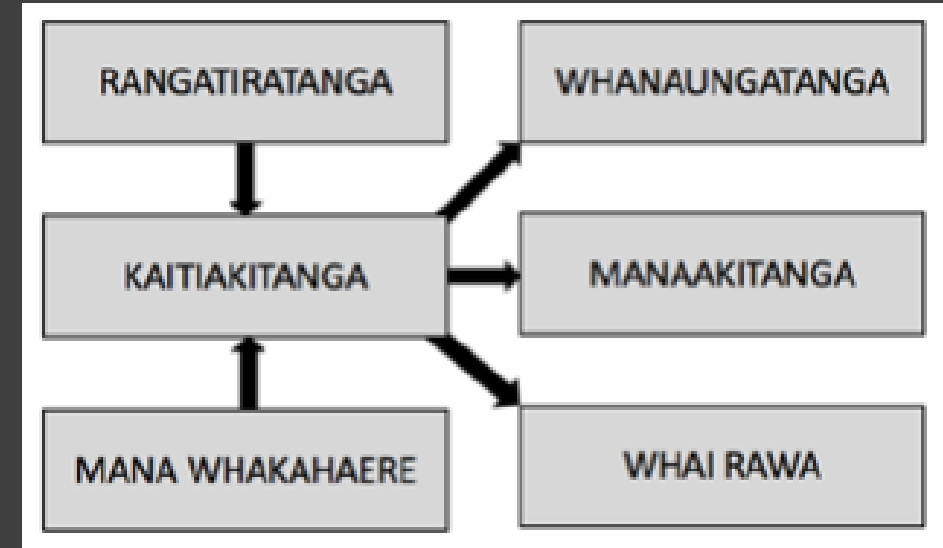
Ngāti Kahungunu Iwi
INCORPORATED

MOANA
NEW ZEALAND

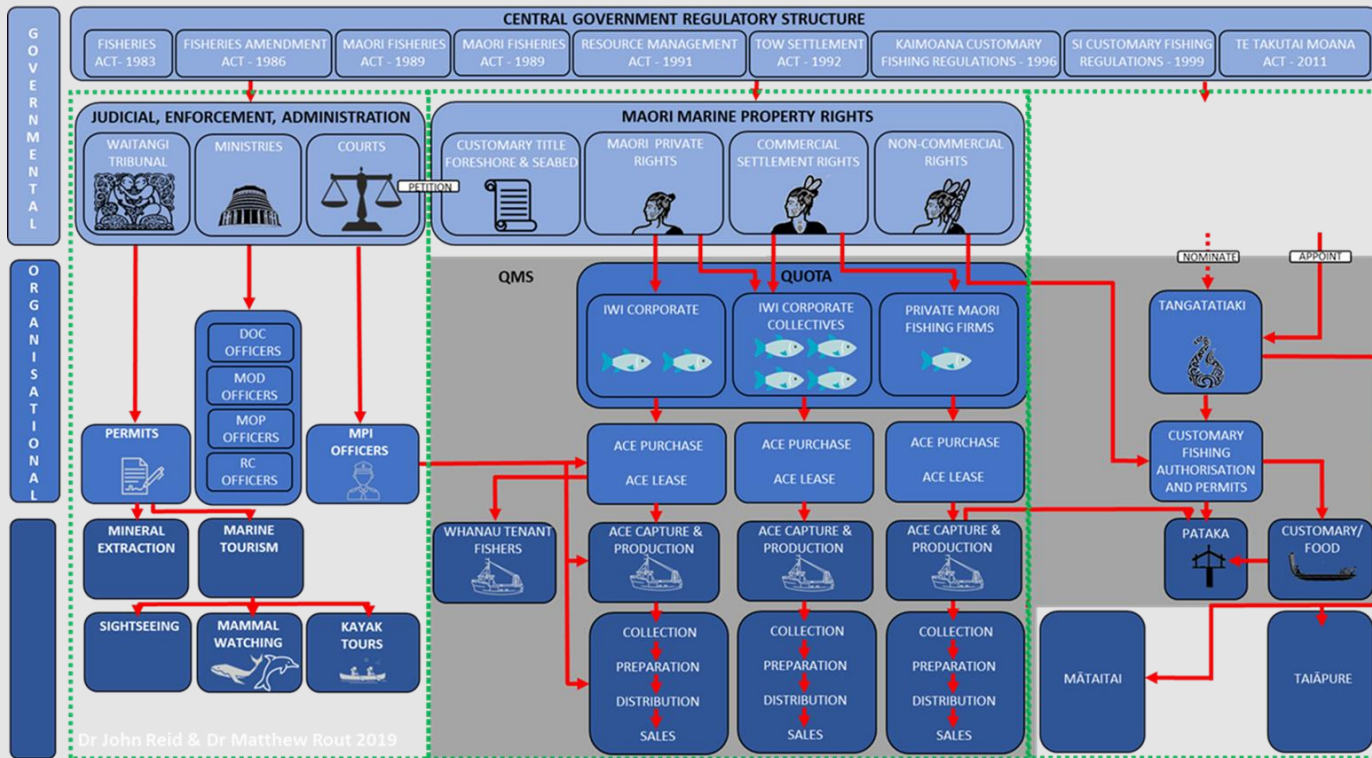


Aotearoa Clams Ltd

Kaitiaki-
centred
business
models
within Māori
marine-based
enterprises



Te Rūnanga o NGĀI TAHU



Māori commercial and customary fisheries centrally controlled by legislation, regulation, ministerial decisions, and agencies without adequate provision for Māori rights and interests, and Māori aspirations

Māori marine economy institutional environment

Project 2.3 Indigenising the blue economy in Aotearoa

Research goal: We will partner with Māori to explore and support Māori who aspire to a blue economy imbued with Māori knowledge, treaty principles, and a focus on Māori wellbeing, human potential, and relational balance with Tangaroa (god of the seas) as our ancestor

Phase I: Māori marine economy

- Traditional and contemporary structure of the Māori marine economy
- Case studies of Māori marine-based enterprise
- Mapping the Māori marine economy

Analysis in Māori marine economy

- Interviews with Māori business leaders, whānau, hapū and iwi
- Key constraints: (1) fragmentation of assets; (2) property rights; (3) corporation-community divide; (4) kaitiaki-centred business practice

Phase II Indigenising the blue economy

- Three themes: (1) pāhekoheko (integration); (2) auahatanga (innovation); (3) whakatautika (balance)
- Four case studies of Māori marine enterprise
- Synthesis of literature, practice and policy