

BAY OF PLENTY AQUACULTURE – INTERNATIONAL OVERVIEW OF INTELLECTUAL PROPERTY

QUEDO SARL, October 2020



I. THE STAGE 2 INTELLECTUAL PROPERTY REPORT

This Stage 2 report provides a high-level 'snapshot' of international intellectual property rights relating to aquaculture and the findings of the Stage 1 assessment*

It presented:

- the international economic and research context
- the international competitor intellectual property context
- a summary of the forms, purpose and value indicators of intellectual property rights applicable to aquaculture
- an analysis of international aquaculture patents, and
- key observations for Bay of Plenty Iwi

* *Te Moana-a-Toi / Bay of Plenty Iwi Aquaculture: Opportunities Assessment' (EnviroStrat, 30th July 2020)*



2. INTELLECTUAL PROPERTY & MAORI

The report coincides with national debate about how the intellectual property regime runs counter to Maori values and a movement for change in national law and practice (possibly towards a national *sui generis* system)

Possibly spur New Zealand to adopt international practice to protect indigenous peoples' rights and share benefits (e.g. Nagoya Protocol, Bonn Guidelines re bio-prospecting)

But... to build a resilient and world-class aquaculture industry, Bay of Plenty Iwi must be on equal footing with national and international competitors with 'smart' use of intellectual property rights: to protect, to add value, to open opportunities, to stop misappropriation, to stop unfair competition, to attract investment and to strengthen negotiating position

Were Bay of Plenty Iwi to postpone their use of intellectual property rights pending national revision of the intellectual property system, they risk placing themselves at a lengthy and expensive disadvantage



3. INTERNATIONAL ECONOMIC CONTEXT : MAJOR AQUACULTURE & SEAFOOD PRODUCING COUNTRIES

Rank	1	2	3	4	5	6	7	8	9	10
Producers	China	Indonesia	India	Vietnam	Bangladesh	Philippines	South Korea	Egypt	Norway	Japan
Production (million metric tons)	63.7	16.6	5.7	3.6	2.2	2.20	1.9	1.4	1.3	1.1
Export value (billion US\$)	EU	China	Norway	Vietnam	India	Chile	USA	Thailand	Canada	Ecuador
	38.2	25	12.1	7.7	7	6.8	6.1	6	5.4	5
Import value (billion US\$)	EU	USA	China	Japan	South Korea	Thailand	Canada	Russia	Australia	Brazil
	60.6	22.6	20.2	15.3	6	3.9	3	2.2	1.6	1.4

* Source Food and Agriculture Organisation of the United Nations, FishStatJ <http://www.fao.org/3/y4762e/y4762e06.htm>



4. AQUACULTURE INTELLECTUAL PROPERTY

Aquaculture incorporates myriad technologies, skills and business practices...all forms of intellectual property rights apply - patents, utility models, design protection, trade secrets, copyright and trade marks

Each intellectual property right protects different aspects and serves a different purpose

Generally, trade marks, Confidential Information and trade secrets, design and copyright are brand specific; while patents, utility models, plant varieties, designs and certain works of copyright (e.g. software), collective marks, certification marks and Geographic Indications can be independent of brand (for example, held by research entities and out-licensed to a number of private entities)

Patents offer a unique insight in to research, investment, competitor plans and emerging technology

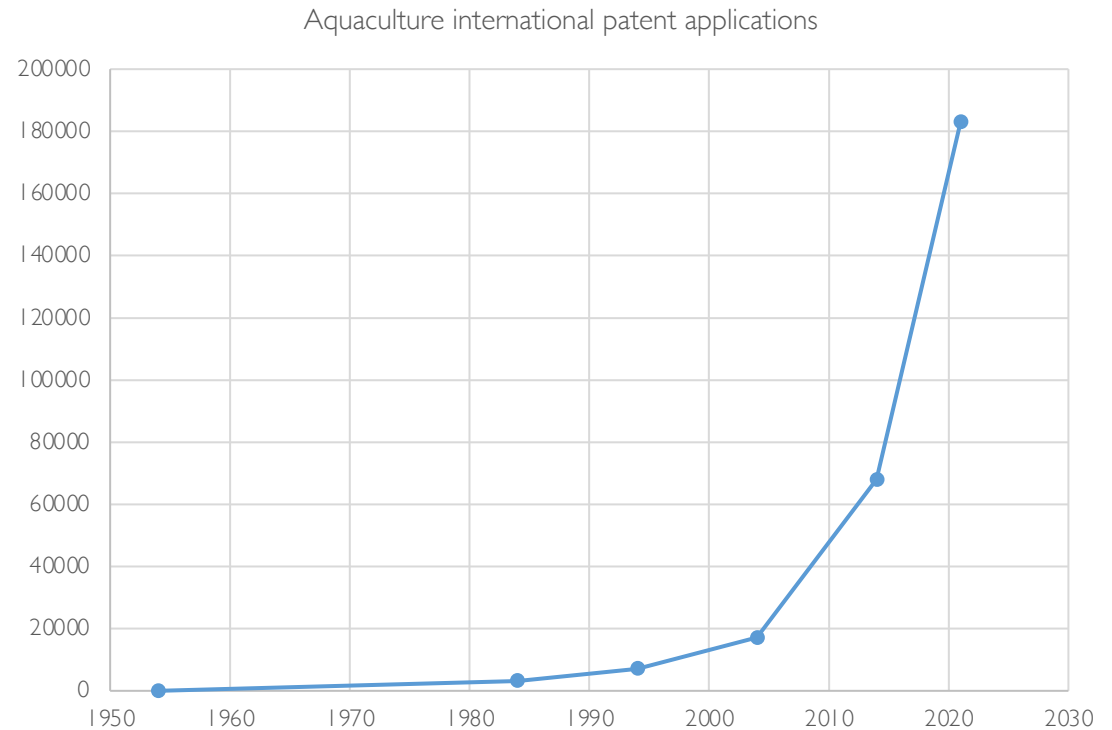


4. AQUACULTURE INTELLECTUAL PROPERTY

Since 1954 there has been a 200-fold increase in the number of patent applications directly relating to aquaculture

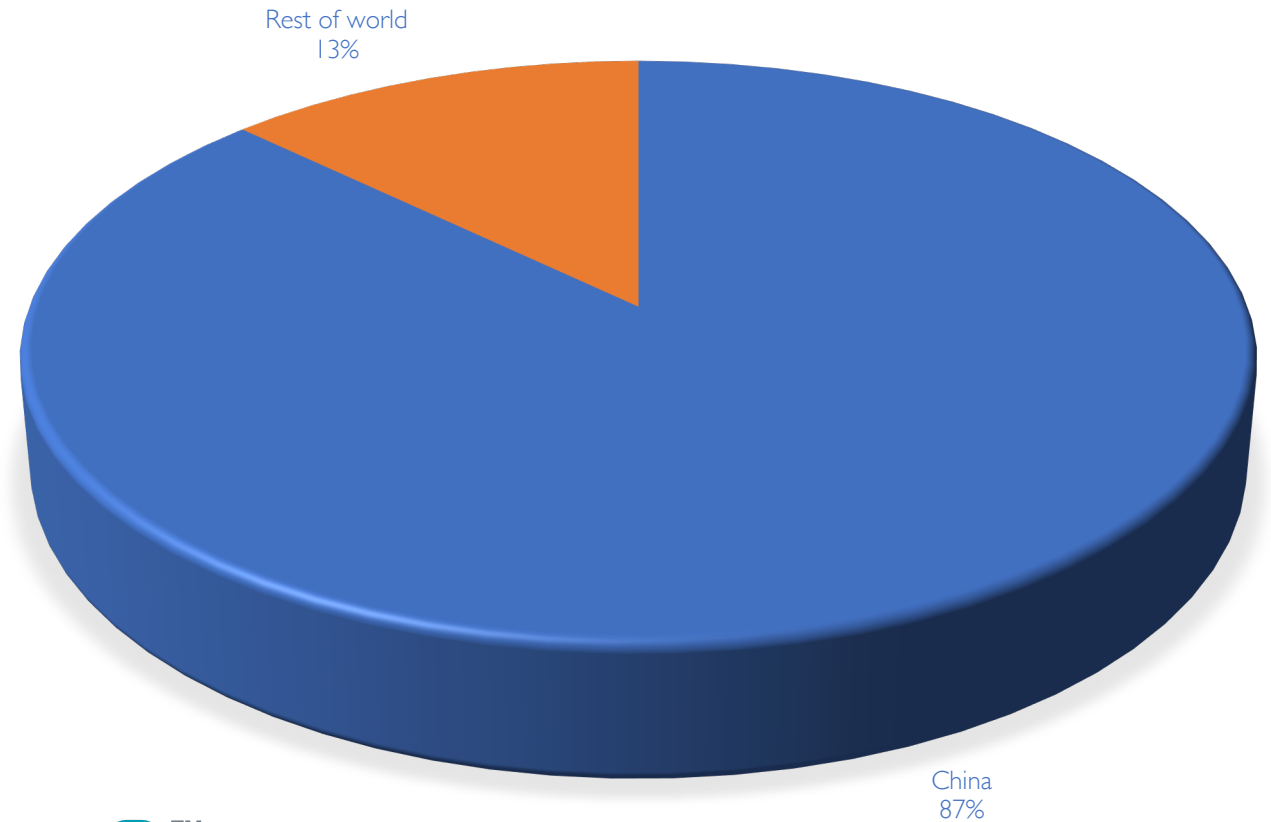
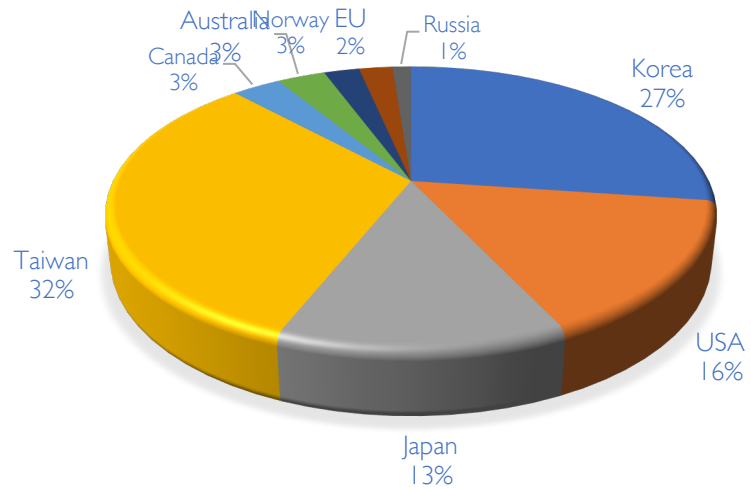
The profile of patentees indicates target markets and collaboration partners

Others' patent practice guides territories for Bay of Plenty Iwi intellectual property protection



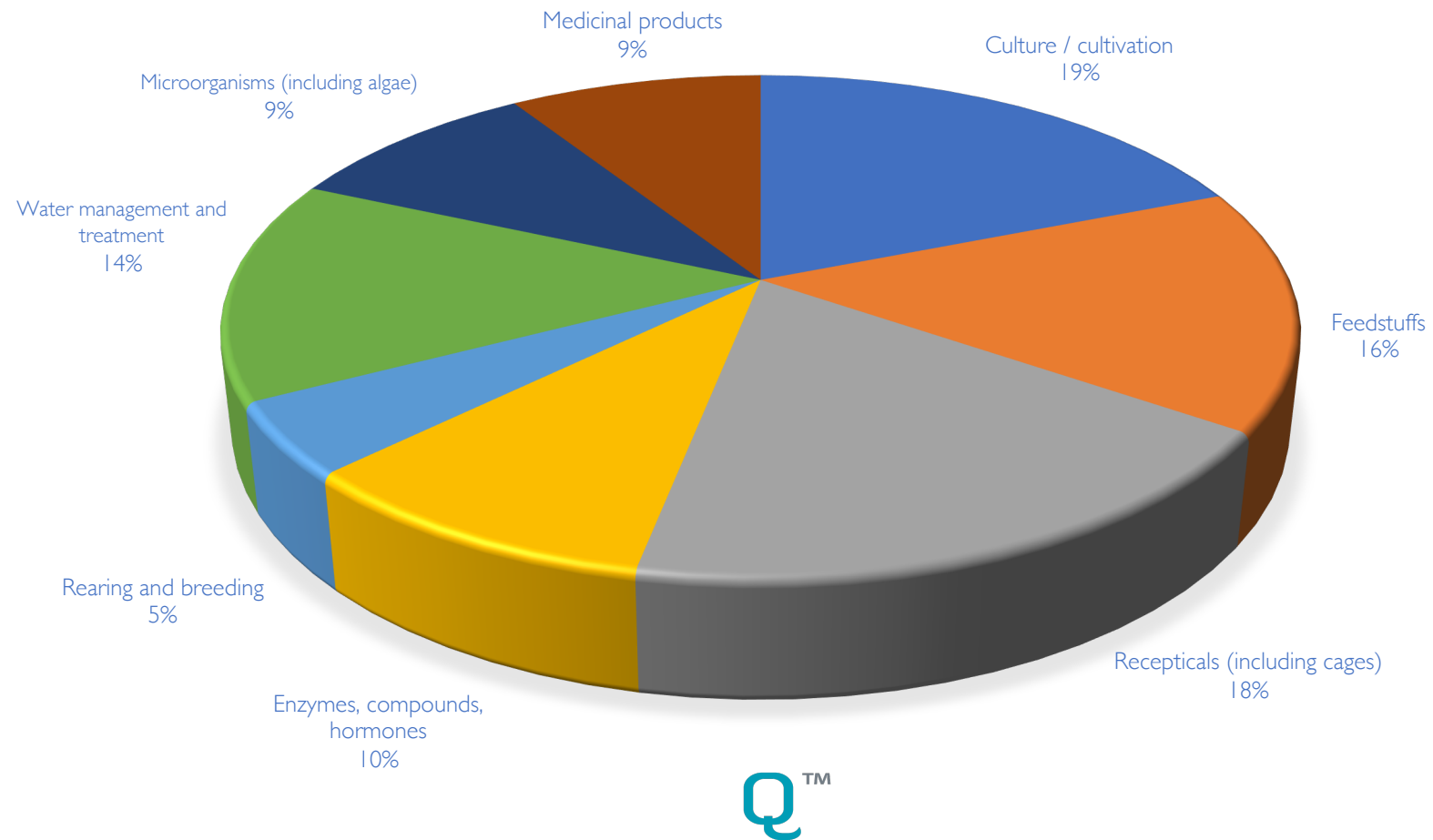
4. AQUACULTURE INTELLECTUAL PROPERTY

The highest producer and investor (including in foreign aquaculture) China is now the dominant patentee...



4. AQUACULTURE INTELLECTUAL PROPERTY

Aquaculture falls under 67 different IPCs (patent classes)



4. AQUACULTURE INTELLECTUAL PROPERTY

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Medicinal preparations of undetermined constitution containing material from algae, lichens, fungi or plants or derivatives thereof e.g. traditional herbal medicines

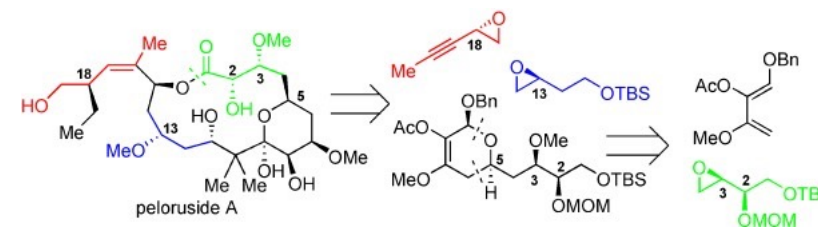
Given the quantity of patents, novelty is becoming increasingly narrow

'mātauranga Māori' falls under a high-value, traditional knowledge class and extends to genetic resource and bio-prospecting but...

- many of the attributes of mātauranga Māori have been publicly disclosed for 'free' access and use, including traditional uses of New Zealand plants by Maori*
- potential national collaboration partners are already active patentees including universities and research institutes and aquaculture companies, and
- while mātauranga Māori, Bay of Plenty marine life and related genetic resources has significant potential for high-value products (pharmaceutical and nutraceutical) and research biotech is notorious for misappropriation



Mycale sponge, found off Te Hoiere



* For example <https://www.landcareresearch.co.nz/tools-and-resources/databases/nga-tipu-whakaoranga-maori-plant-use-database/>

5. STAGE 2 RECOMMENDATIONS & STAGE 3 DETAILED STRATEGY

The Stage 2 report proposed a pioneering new 'collective' intellectual property strategy, a structure of 'kaitiakitanga' under which:

- existing and potential intellectual property is captured and protected
- private Bay of Plenty Iwi aquaculture enterprise have exclusive access to 'common' international intellectual property rights and expert support services and systems managed by a 'Collective' entity to 'fast track' success
- future options are 'reserved'
- Bay of Plenty Iwi rights, scope and expertise are enhanced, and
- Bay of Plenty Iwi participate directly in international cutting-edge research

The Stage 3 report presents the detail ...



Ngā mihi nui ki a koutou

