

Chapter 5.18

The Profession of Research Management and Administration in Aotearoa New Zealand

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Abstract

Within Aotearoa New Zealand (NZ) research, funding is sourced from a wide range of NZ and international governments, industries, and philanthropic organisations. This chapter primarily focusses on NZ government public sector funding of research and innovation and the impact this has on research management and administration (RMA) in NZ.

Along with an increase in the number and range of NZ organisations that compete for research funding, there has also been an increase in the complexity and range of roles that need to be undertaken by those involved in RMA. The Future Pathways green paper, released by the Ministry of Environment, Innovation & Employment in October 2021, has signalled a redesign of the ‘public’ research system, which could lead to further changes in the roles and responsibilities of RMA.

Keywords: Aotearoa New Zealand; Ministry of Business, Innovation & Employment; research support; research management and administration; innovation; funding

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The New Zealand (NZ) Research Ecosystem

The Department of Scientific and Industrial Research (DSIR) was founded in 1926 by Ernest Marsden to support education and research. Competitive funding was introduced in the late 1980s followed by science sector reforms circa 1990 that saw the dissolution of the DSIR, separation of research policy and funding, and establishment of the Crown Research Institute (CRI).

Public sector funding of research and innovation primarily comes not only from business, science and innovation, and education budgets, but also from a range of other budgets including health, conservation, transport, primary industries, and social development. Since 2012, policy and funding functions are the responsibility of the Ministry of Business, Innovation & Employment | Hīkina Whakatutuki (MBIE¹).

With responsibility for aligning Research, Science & Innovation (RSI) investment to the Government's goals, MBIE develops and delivers policy, services, advice, and regulation to support economic growth and the prosperity and wellbeing of New Zealanders. As the primary distributor of public good research funds, MBIE invests both directly via contestable and devolved funding mechanisms, and indirectly through other agencies.

For example, in the 2020/2021 financial year, the Minister of Research, Science and Innovation ([Ministry of Business, Innovation & Employment, 2015](#)²) was responsible for funding:

- Strategic Science Investment Fund³ – supporting long-term programmes and scientific infrastructure for mission-led science to contribute to the economy, environment, and wellbeing, for example Tangaroa research vessel, nationally significant databases and collections.
- Endeavour Fund – investing in the highest quality, mission-led research proposals for areas of future growth and critical need.
- National Science Challenges – funding research projects to address issues of national significance.
- Partnered Research Fund – achieving greater connections between researchers and end-users.
- Catalyst Fund – improving international flows of people, ideas, investment, and trade through the support of international research relationships.
- Marsden Fund, via the Royal Society Te Apārangi, for excellent fundamental research, and a range of fellowship funds.
- Health Research Fund, via the Health Research Council, for improvement in health and wellbeing through health research.
- Business funding to successfully develop new and improved products, processes, and services through R&D, and technology-driven innovation, via Callaghan Innovation.⁴
- Regional institutes – to maximise the unique business, technology, and economic growth opportunities in their respective regions, via the Provincial Growth Fund.

¹ <https://www.mbie.govt.nz/science-and-technology/science-and-innovation/>, the public funder for research that creates economic, social and environmental benefits for New Zealand.

² <https://www.mbie.govt.nz/science-and-technology/science-and-innovation/funding-information-and-opportunities/investment-funds/strategic-science-investment-fund/funded-infrastructure/>

³ <https://sciencenewzealand.org/about/new-zealand-science-systems/>

⁴ Established 2013 by the NZ government to support business Research & Development (R&D) and accelerate commercialisation in NZ.

The proportion of government ownership in NZ's science system through the CRIs is larger than in many OECD countries.⁵ CRIs play an important role in supporting their sectors to innovate and grow. They undertake research to address NZ's most pressing issues and to achieve economic growth by improving sectors' productivity and improving the sustainable use of natural resources.

There are currently seven CRIs, each aligned with a productive sector of the economy or a grouping of natural resources. They are AgResearch, the Institute of Environmental Science and Research, NIWA, Manaaki Whenua – Landcare Research, Plant & Food Research, GNS Science and Scion.

Additionally, the Tertiary Education Commission [Te Amorangi Mātauranga Matua (TEC)⁶ supports the tertiary and careers system to ensure New Zealanders are equipped with the knowledge and skills they need for lifelong success. It allocates a significant amount of research funding to tertiary education organisations (TEOs), through large competitive funds such as the Performance Based Research Fund⁷ and Centres of Research Excellence Fund.⁸

Research managers and administrators (RMAs) are present in a range of institutions, including 8 Universities, 7 CRI, 23 independent research organisations [Te Pūkenga comprising 16 Institutes of Technology and Polytechnic (ITP) and 9 industry training organisation (ITO)], 3 Wānanga⁹, funding bodies, Iwi and Māori businesses, independent consultants, and private sector companies.

Changes in the structure and role of research offices continue apace in response to changing priorities of government and funding agencies, which has led to the creation of new, specialist RMA roles including ethics, integrity, contracting, impact writing, and researcher development. Generation of economic, environmental, and social impact from research investment is also increasingly required by research funders. These new and evolving roles have required increased upskilling of RMA through conferences, accreditation, specialist professional training, e.g. law and project management.

Unique to NZ, partnerships with Māori, through co-design of research and innovation and honouring Te Tiriti o Waitangi¹⁰ (the Treaty of Waitangi)¹¹ obligations, is a key Government focus and is intrinsic to the NZ research science and innovation strategy and science system. Māori have a special place in the research system as users and producers of research, as well as custodians, users, and producers of their unique body of mātauranga Māori (indigenous knowledge). As a Treaty partner, the government has a responsibility to ensure Māori research needs are addressed, Māori research aspirations are supported and new and traditional Māori knowledge is protected.

Evolution of the Profession in NZ

The formation of the Australasian Research Management Society (ARMS) in 1999 provided the opportunity for NZ RMAs to join an international association dedicated to the development of the profession, with representation through the NZ & Pacific

⁵ <https://sciencenewzealand.org/about/new-zealand-science-systems/>

⁶ Crown Agency that leads the Government's relationship with the tertiary education sector in NZ, including the management of PBRF.

⁷ TEO fund for tertiary sector organisations via a four-yearly contestable fund.

⁸ Inter-institutional research networks, where researchers work together on commonly agreed work programmes.

⁹ Publicly owned tertiary institutions that provide education in a Māori cultural context.

¹⁰ <https://nzhistory.govt.nz/politics/treaty-of-waitangi>

¹¹ <https://www.archives.govt.nz/discover-our-stories/the-treaty-of-waitangi>

Chapter. ARMS provides networking, training, and accreditation at various levels as well as an annual conference.¹²

In NZ, RMAs are usually designated as professional or support staff to differentiate them from academic, research, or technical staff. The designation ‘Research Support’ (RS) is used as a proxy for RMA, who are involved in the many facets of research management to enable a comparison of RS within NZ organisations. However, these numbers should be regarded as only an estimate, as other professional staff such as finance and human resources will most likely be included in CRIs but not necessarily in TEO RS numbers.

The number of RS staff in the TEOs is higher than in the CRIs; however, the percentage of RS to total staff is higher in CRI (Table 5.18.1).

The NZ RMA Community

Although ARMS membership (Fig. 5.18.1) is increasing, it represents only a small subset of RMAs in NZ as RMAs can attend the ARMS conference, events, and training without being ARMS members.

ARMS engagement in NZ has been challenging due to the distributed membership and low number of members outside of universities. Efforts to increase the engagement of members include the advent of NZ-specific training offerings such as Understanding Māori Data Sovereignty.

Within universities, the RMA community is also supported by the NZ University Research Offices (URONZ) group, which exists to increase collaboration and development of good practice. It includes a Directors’ group that meets regularly, a conference for RS staff, and specialist working groups, e.g. a Contracts Working Group. Traditionally, the annual conference was only open to university staff, but from 2022 it will be open to RS from other organisations.

Table 5.18.1. Indicative RS 2021 Staff Numbers in TEO and CRI in NZ.

2021	Total Staff	RS Staff	% RS
TEO	43,685	2,275	5
CRI	3,757	490	13



Fig. 5.18.1. Changes in NZ & Pacific Chapter Membership in ARMS, 2015–2021.

¹²<https://www.researchmanagement.org.au/about-arms-0>

NZ RMA Demographics

Data from funding agencies, government ministries, and organisation websites have been used to provide a snapshot of the current situation regarding the NZ RMA workforce.

Size of the RSI Workforce by Sector and Occupation

The RSI workforce includes technicians, support staff, and researchers. The make-up of the workforce varies by sector (Fig. 5.18.2). Support and technical staff comprise approximately 43–46% of personnel involved in R&D in the business and government sectors and 13% in the higher education sector (Ministry of Business, Innovation & Employment, 2021a).

As noted earlier, the designation ‘RS’ is being used as a proxy for those involved in RMA to enable a comparison of RS within NZ organisations.

Universities (Table 5.18.2) with education and research as their key core business activities tend to have substantial central research offices providing core administrative services, sometimes with appointments out to faculty level. In contrast CRIs (Table 5.18.3), which are research-only organisations aligned with natural resource groups or productive sectors of the economy, usually have smaller central research administrative support teams, with research management functions dispersed to a variety of roles within their divisions (e.g. business development managers) or in other central corporate services (such as finance or project management).

The total number of RS staff in NZ TEO has increased (Table 5.18.2) from 2019 to 2021. This increase has been variable across ethnic groups (Fig. 5.18.3) and age classes (Fig. 5.18.4). While the number of RS who have identified as male has increased, this is still a very female dominated profession (Fig. 5.18.5).

Across the seven CRIs, there is widespread variation in the numbers of research support staff (Table 5.18.3). This is possibly due to what roles each individual organisation counts as RS. It is not possible to know from the available CRI data

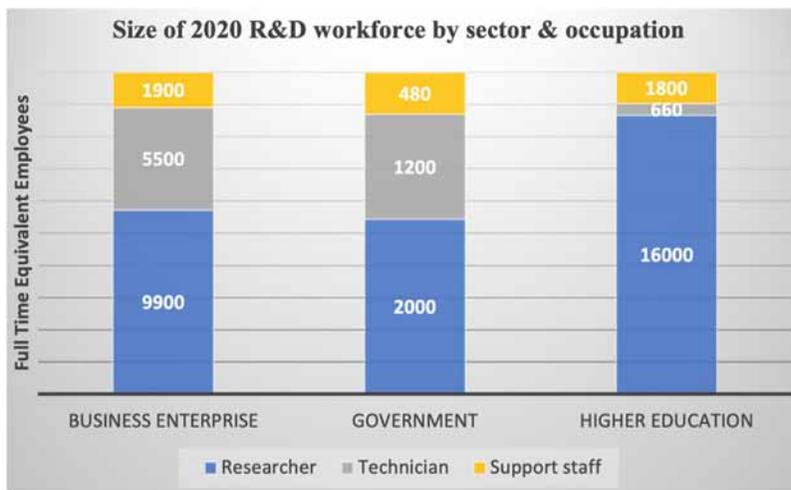


Fig. 5.18.2. Size of NZ R&D Workforce by Sector and Occupation.

Data Source: Stats NZ (n.d.).

Table 5.18.2. RS Staff Employed, or Contracted, in TEO, 2019–2021.

	Number of Staff			Full-time Equivalent Staff (FTE)		
	2019	2020	2021	2019	2020	2021
Annual Totals	1,680	2,010	2,275	920	1,145	1,190
Ethnic group						
European	825	970	960	460	570	545
Māori	85	130	170	45	70	90
Pacific Peoples	60	60	95	35	35	40
Asian	420	445	455	250	295	285
Other	125	125	115	65	80	65
Unknown	185	295	505	75	105	170
Age						
Under 30	705	835	910	305	385	370
30–49	730	850	970	440	530	555
50–59	165	205	230	125	150	165
60–64	55	70	80	40	55	55
65 and over	25	40	45	15	20	25
Unknown	5	15	40	0	0	15
Gender						
Female	1,090	1,260	1,425	595	725	745
Male	590	730	795	325	415	420
Another gender	nc	20	55	nc	5	25

Source: Statistics derived from information provided to the Ministry of Education by TEOs.

Notes: Staffing counts are submitted by providers for the full calendar year.

Data in all tables, including totals, have been rounded to the nearest 5 to protect the privacy of individuals, so the sum of individual counts may not add to the total.

Te Pūkenga – The New Zealand Institute of Skills and Technology (NZIST) was established in 2020 as part of reforms of vocational education and includes the previous 16 ITPs. ‘nc’ (not collected) indicates that providers were not asked to report staff numbers in this category in the given year.

if there have been similar changes in RS numbers, gender, or age over time in the different CRIs.

Increasingly, the requirement for RMA to have tertiary qualifications is becoming the norm. Given the wide range of roles and job descriptions of RMA, it is important to also appreciate that other qualifications such as project/financial/IP management or prior commercial/company experience can be very relevant.

The Future of RMA in NZ

In the author’s experience, many researchers who work with RMAs value them for the professional and specialist expertise and advice they offer and also for the critical

Table 5.18.3. Staff Employed in NZ CRIs, by Designation, 2021.

CRI	Research	Research Support	General	Senior Leadership	All Staff FTE	Staff Headcount
AgResearch	408	166	73	10	657	722
ESR	265	59	88	8	420	497
GNS Science	279	68	69	7	423	442
Manaaki Whenua	250	37	68	9	364	408
NIWA	461	60	130	9	653	697
Plant & Food Research	648	92	161	7	908	988
Scion	239	8	78	7	332	356
All CRI	2,550	490	667	57	3,757	4,110

Source: Science New Zealand (2021).

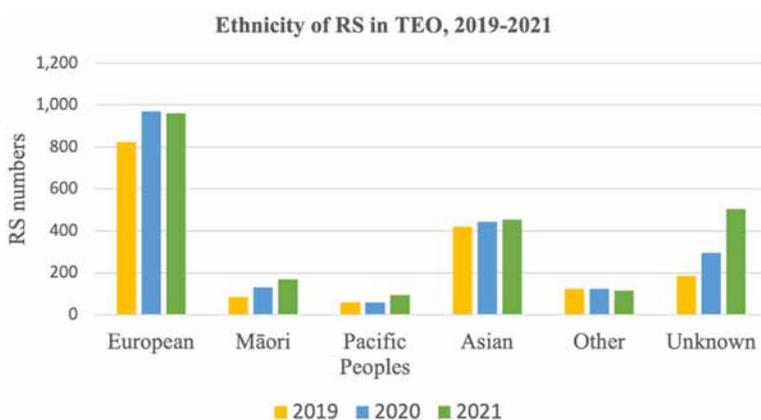


Fig. 5.18.3. Ethnicity of RS in TEO in NZ, 2019–2021.

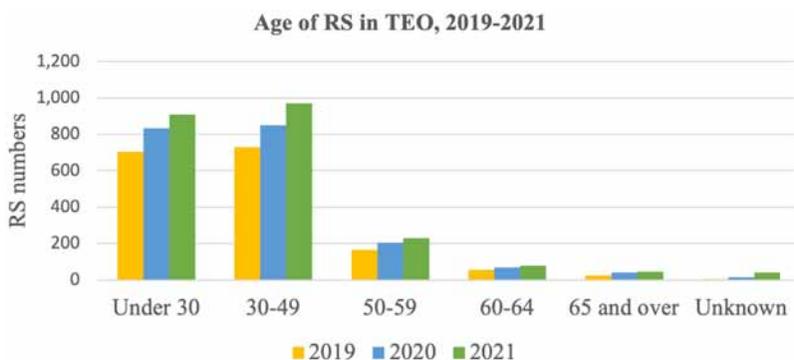


Fig. 5.18.4. Age Distribution of RS in TEO in NZ, 2019–2021.

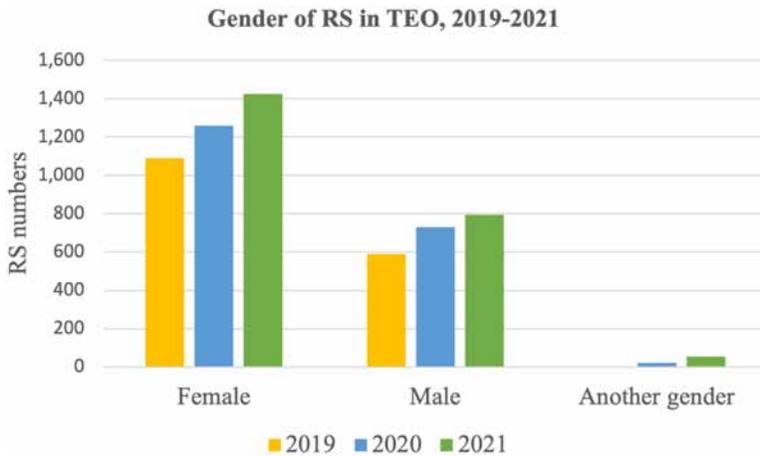


Fig. 5.18.5. Gender of RS in TEO in NZ, 2019–2021.

connector role they play throughout the life cycle of research programmes. This is both between researchers and other functions (e.g. finance, HR, business development, legal, etc.) within their own organisation and externally with stakeholders and other RSI organisations. With the increased emphasis on cost/benefit/impact, it is not just about the ‘science’ anymore. Expectations on research impact are driving wider skills RS requirements (e.g. for impact writers, communications, stakeholder engagement, etc.).

The roles of some RMAs will change with the increasing ethical, financial, and legal compliance requirements that are necessary to manage the larger collaborative larger programmes being funded in response to the changing nature of research and scale problems. Such programmes also create opportunities for ‘centre manager’ type roles (i.e. senior RMA external to research offices). This is already evident in National Science Challenges, Platforms, Centres of Research Excellence (CoRE).

Competitiveness among R&D providers for external income to support their respective organisations’ research capabilities will increase as shown in the 2022 MBIE Endeavour Funding Round where 57% of the proposals submitted were from private/limited liability companies. The number of RMAs who are operating outside of research organisations and/or ‘freelancing’ with and for universities, CRIs, and other agencies is increasing. This pool of RMA consultants provides an essential workforce for organisations with fluctuating demands and needs and is changing the RMA ‘market’.

In NZ, the R&D system is focussed on the upcoming potential redesign of the ‘public’ research system following the release of the Future Pathways green paper (Ministry of Business, Innovation & Employment, 2021b). The intent is to identify processes to better deliver on whole-of-system research priorities and potential mechanisms to support, develop, and fund the RSI workforce. It will embed the Treaty across the design and delivery attributes of the system, and enable opportunities for mātauranga Māori. Based on past experience with changes in the structure of RSI organisations and funding arrangements the author hypothesises that any ‘redesign’ resulting from the MBIE green paper will undoubtedly impact on RMAs as will the increased, and well overdue, requirement for co-creation of proposals with all stakeholders, including more involvement of Māori in kaitiaki roles for Māori specific engagement, IP management, and contracting.

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