

# 2024 New Zealand Mana Tūārangi Distinguished Researcher Fellowship Guidelines for panellists

NGĀ ARATOHU MĀ TE RŌPŪ WHIRIWHIRI

The **Mana Tūārangi Distinguished Researcher Fellowship** is one of the Aotearoa New Zealand Tāwhia te Mana Research Fellowships. Mana Tūārangi is designed to support researchers with expansive and international reputations to make contributions that will extend beyond their own career span.

Supported by the New Zealand Government with funding from the Ministry of Business, Innovation and Employment. Nā Te Hīkina Whakatutuki te mana hāpai.

**Te Kāwanatanga o Aotearoa**  
New Zealand Government



**MINISTRY OF BUSINESS,  
INNOVATION & EMPLOYMENT**  
HĪKINA WHAKATUTUKI

# Contents

## Ngā kaupapa

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Background to the Tāwhia te Mana Research Fellowships	3
New Zealand Mana Tūāurangi Distinguished Researcher Fellowships	4
Objectives	4
Description	4
Eligibility	5
Research categories	5
Assessment Process (in brief)	5
Assessment of proposals	5
Sensitive issues	8
Role of Royal Society Te Apārangi staff	10
Timetable	11
Contact us	11
Appendix I: Vision Mātauranga information for applicants	12
Appendix II: Glossary of te reo Māori terms	16
Appendix III: DORA	21

# Background to the Tāwhia te Mana Research Fellowships

## He whakamārama mō Tāwhia te Mana

The Aotearoa New Zealand Tāwhia te Mana Research Fellowships are administered by Royal Society Te Apārangi on behalf of the Ministry of Business, Innovation and Employment (the Ministry).

The Fellowships will support researchers at different career stages to produce excellent and impactful research and to develop into leaders in their fields, their respective host organisations and across the whole of the Aotearoa New Zealand science, innovation and technology (SI&T) system. It is expected that Fellows, throughout their careers, will contribute to positive outcomes for Aotearoa New Zealand [embedding Te Tiriti o Waitangi](#) in their work and their community.

Receipt of an Aotearoa New Zealand Tāwhia te Mana Research Fellowship is expected to have significant value for the future career development and leadership potential of a researcher.

The Māori terms in the fellowship names reference the Ministry of Business, Innovation and Employment's values, which includes Tāwhia tō Mana (building and retaining your reputation) as part of enabling the aspiration to "Hīkina Whakatutuki - Grow Aotearoa New Zealand for all". Tāwhia te Mana Fellowships contribute to building excellence in the SI&T sector.

The Aotearoa New Zealand Tāwhia te Mana Research Fellowships consist of three schemes, targeted at early, mid- and established career researchers respectively. The three schemes are:

- New Zealand Mana Tūāpapa Future Leader Fellowship
- New Zealand Mana Tūānuku Research Leader Fellowship
- New Zealand Mana Tūārangi Distinguished Researcher Fellowship (discussed in these guidelines).

The schemes target excellent candidates at three career stages: early-career researchers/future leaders building the foundations of their career (mana tūāpapa); mid-career researchers, further establishing themselves as research leaders (mana tūānuku); and distinguished researchers with expansive career success and a prominent international reputation (mana tūārangi).

# New Zealand Mana Tūārangi Distinguished Researcher Fellowships

## Mana Tūārangi

The panellist guidelines below provide panellists with information on the selection of New Zealand Mana Tūārangi Distinguished Researcher Fellowship recipients. The fellowship targets distinguished researchers with expansive career success and a prominent international reputation (mana tūārangi)

## Objectives

### Ngā whāinga

The New Zealand Mana Tūārangi Distinguished Researcher Fellowship will support researchers with expansive and international reputations to make contributions that will extend beyond their own career span.

All Aotearoa New Zealand Tāwhia te Mana Research Fellowships include the overriding objective to develop the future leaders of the Aotearoa New Zealand science, innovation and technology system (SI&T). The Fellowships will:

- improve the retention of talented, future research leaders within the SI&T system, both during the fellowship and in their post-fellowship careers, through development of a strong track record
- support career development, to empower Fellows to become leaders in their fields, their organisations and across the SI&T system
- improve equity and diversity within the SI&T system, in particular by creating opportunities for Māori, Pacific peoples and women who are excellent leaders and future leaders of research
- reward and support a range of boundary-pushing research activities, including those that focus on generating impact from research.

## Description

### Whakamāramatanga

Two New Zealand Mana Tūārangi Distinguished Researcher Fellowships of between one and two years of length will be awarded annually.

The total value of the Mana Tūārangi Distinguished Researcher Fellowship is \$220,000. The funding is able to be used over a period of between one and two years, as indicated by the applicant at the time of application. Up to \$100,000 per year can be taken as a contribution to the researcher's salary, with the remaining amount to be used for research related expenses to deliver the research and benefit to the Aotearoa New Zealand SI&T system outlined in the application.

This study or research may be undertaken in a location and organisation in Aotearoa New Zealand or overseas, as agreed by the Fellow and the host organisation at the time of application.

## Eligibility

### Ngā paearu āheitanga

Royal Society Te Apārangi checks the eligibility of all applications prior to forwarding these to panellists. All applications forwarded for review fulfil the eligibility requirements.

### Additional requirement

In accordance with the Russia Sanctions Act 2022, the applicant and their research must not benefit a Russian state institution (including but not limited to support for Russian military or security activity) or an organisation outside government that may be perceived as contributing to the war effort.

## Research categories

### Ngā wāhanga o ngā rangahau

Mana Tūārangi Distinguished Researcher Fellowships are available from time to time in each of the following categories:

- Biological and Health Sciences
- Physical and Engineering sciences and Mathematics
- Social Sciences and Humanities
- Transdisciplinary Research.

These categories and the descriptions following each, should be read to be inclusive rather than exclusive. The intention is for the four categories to cover all areas of research, including research with a focus on indigenous knowledge and approaches.

In the 2024 round, Royal Society Te Apārangi is offering Fellowships for:

- **Physical and Engineering sciences and Mathematics.**

## Assessment Process (in brief)

### Tukanga aromatawai (whakarāpopoto)

Royal Society Te Apārangi will establish an assessment panel, chaired by the President of the Royal Society Te Apārangi, or their nominee. The panellists will cover a wide range of expertise relevant for the research category in a given year. The panel will provide recommendations on the relative merit of the proposals and recommend two applicants for funding each year.

## Assessment of proposals

### Te aromatawai i ngā tono

### Criteria

Applications for the Mana Tūārangi Distinguished Researcher Fellowship must be assessed on the following criteria:

- research quality (excellence in research)

- leadership quality (calibre of the applicant as a research leader, which may include their vision for their field of work, team leadership, knowledge transfer activity, entrepreneurial activity and how they will embed Te Tiriti o Waitangi in their research community)
- benefit to the wider New Zealand SI&T system (strengthening international or domestic research connections, mentoring and training of early career researchers and research students).

When assessing applications, panellists should apply the above criteria holistically to both the applicant's previous achievements and to the proposed project by scoring the application on the two questions below:

- 1) To what extent does the applicant's research career demonstrate excellence in research, leadership, and benefits to the wider New Zealand SI&T system?
- 2) To what extent does the proposed project enhance, or leverage of, the applicant's excellence in research, their leadership, and (where relevant) their ability to create benefits to the wider New Zealand SI&T system?

*Successful applicants will have demonstrated a portfolio of outstanding research excellence, leadership, and benefits to the wider New Zealand SI&T system, while at the same time having proposed a project that will further allow them to demonstrate and/or expand on their leadership and make long-lasting contributions.*

Each panel member will receive a PDF containing applications for their panel and a spreadsheet on which to record their grades. Panel members are asked to read and grade each of the two questions from information provided exclusively in the application. Panellists must grade all applications unless they have indicated a conflict of interest for a particular application as described in section below.

Scores should be completed and returned to Royal Society Te Apārangi no later than by **5pm on the date indicated in the timeline.**

Royal Society Te Apārangi will collate the grades from the panellists to create a ranked list of applications, which will form the starting point for discussions at the panel meeting. At the meeting, the panel will have an opportunity to discuss the relative merit of the top ranked applications.

The role of the panel is to rank the applicants and recommend two candidates for funding. In doing so, the panel must be cognisant of the description and objectives of the Tāwhia te Mana Fellowships in general, and the New Zealand Mana Tūārangi Distinguished Researcher Fellowship in particular, including the aspiration to improve equity and diversity within the SI&T system.

The recommendations of the selection panel for successful applicants are ratified by Royal Society Te Apārangi.

## Grading the questions

There are six scores available; 1 (**Most outstanding**) to 6 (**Least convincing**). Each panellist is asked to assign each of the two questions above, one of the six scores. In doing so, panel members should use the following target distribution as best as possible.

Score	1 (MOST OUTSTANDING application)	2	3	4	5	6 (LEAST CONVINCING application)
% of proposals	10-20	15-25	20-30	15-25	10-20	0-10
Example (25 proposals)	2-4	3-5	4-6	3-5	2-4	0-2

**Table 1.** Target distribution.

In the example above where 20 proposals are assessed, between 2 and 4 proposals should be assigned a score of 1 (the very best), between 3 and 5 proposals should be assigned a score of 2, between 4 and 6 proposals should be assigned a score of 3, and so on. Additional help to achieve the target distribution is provided in the score sheet.

## Vision Mātauranga

[Vision Mātauranga](#) is a policy about innovation, opportunity and the creation of knowledge that highlights the potential contribution of Māori knowledge, resources and people. There are four themes:

- **Indigenous Innovation**, which involves contributing to *economic growth* through distinctive research and development;
- **Taiao**, which is concerned with achieving *environmental sustainability* through iwi and hapū relationships with land and sea;
- **Hauora/Oranga**, which centres around *improving health and social wellbeing*;
- **Mātauranga**, which involves exploring *indigenous knowledge*.

Alignment with Vision Mātauranga must be considered by all applicants. If an application has been marked as 'Non Applicable' to Vision Mātauranga, the applicant must provide a rationale for this decision.

Applications that align with one or more of the four themes, are given up to one additional page to describe their proposed research. This gives applicants an opportunity to more easily integrate Vision Mātauranga into the conceptual framework and/or research design of the proposed programme, for example, demonstration of consultation, linkages, outcomes or other relevant information. Alternatively, applicants may choose to gather all relevant Vision Mātauranga information under a separate relevant Vision Mātauranga heading under the Research Programme template, or use any combination of information across the template.

Panellists are asked to consider the quality of the Vision Mātauranga engagement (including reasoning for why engagement is not applicable) in their assessment.

## Vision Mātauranga costs

If a proposal is aligned to Vision Mātauranga, the panel assessment may additionally consider costs associated with Vision Mātauranga capability development and engagement in the budget.

Examples include (but are not limited to):

- Research assistant time
- Student stipend support
- Costs of engagement or consultation (direct expenses). Examples could include: donation to the organisation or marae committee as a way of recognising expertise and contribution; koha; vouchers; providing resources such as books or research findings to the communities involved.
- Costs of dissemination (for example, hui) – direct expenses

For more information on Vision Mātauranga (i.e. guidance for applicants), please see [Appendix I](#). For a glossary of commonly used Māori concepts, words and phrases commonly seen in Fellowship proposals, please see [Appendix II](#).

## Consideration of referee reports

Each applicant must solicit two referee reports for their proposal. At least one of the referees should be able to comment on their capability as a researcher. Where relevant, an applicant may choose to have one referee comment on other aspects important for their career as a researcher, e.g. working with communities, stakeholder relationships, demonstration of leadership, research service or any other aspects you see relevant.

Applicant-solicited referees are used for the assessment of proposals in conjunction with the selection criteria. Where referees disagree, the panel members must use their own judgement in determining which referee reports to emphasise and what score to assign. These deliberations should be guided by considerations such as; the panel member's own level of expertise on the subject; the comments made by referees; the relative competencies of the referees; and, possible conflicts of interest. Applicants have been informed that referees should not be directly involved in the proposed programme of research or in the chain of line management of their proposed host department.

Referee reports will be treated as confidential by Royal Society Te Apārangī and are not made available to the applicants.

## Sensitive issues

Ngā take tapu

## Unconscious bias

Unconscious bias refers to a bias which we are unaware of, and which happens outside of our control. Royal Society Te Apārangī wants to ensure that this bias has minimal influence on funding recommendations being made by Society-appointed reviewers. The literature suggests that awareness of unconscious bias can limit the impact of this bias. We therefore encourage panellists to watch the short (3 minutes) introduction video below from the Royal Society London to familiarise/reacquaint yourself with the topic.



## [Royal Society London – Understanding unconscious bias](#)

Some recommendations to blunt the impact of unconscious bias are to:

- Be prepared to **recognise** the impact of unconscious bias
- Deliberately **slow down** decision making
- **Reconsider** reasons for decisions
- **Question** cultural stereotypes.

The [Declaration on Research Assessment \(DORA\)](#) recognises the need to improve the ways in which researchers and the outputs of scholarly research are evaluated. Therefore we encourage panellists to read the Rethinking Research Assessment - Unintended Cognitive and System Biases resource which is appended to these guidelines in [Appendix III](#).

Please also feel free explore some of the additional resources below:

- <https://implicit.harvard.edu/implicit/takeatest.html>  
Link to Harvard University implicit association tests (IAT) on unconscious bias in relation to Gender and Science, and Gender and Career.
- <https://www.microsoft.com/en-us/inclusion-journey/learn>  
Short Microsoft eLesson course designed to help participants understand what unconscious bias is, how it works, and strategies to counter it in the workplace.
- <http://kirwaninstitute.osu.edu/wp-content/uploads/2017/11/2017-SOTS-final-draft-02.pdf>  
“State of the Science: Implicit Bias Review” from Ohio State University’s Kirwan Institute for the Study of Race and Ethnicity – this publication covers a wide range of issues relating to implicit or unconscious bias and general mitigation strategies.
- <https://www.youtube.com/watch?v=Colryqt2WcU&feature=youtu.be>  
Unconscious bias training prepared by the Tertiary Education Commission in 2018 for the Performance-Based Research Fund (PBRF) assessment panels.

## Privacy

Royal Society Te Apārangī has obligations under the Privacy Act to keep confidential certain information provided by individuals. Moreover, the records of deliberations by panels are regarded as strictly confidential; as are the contents of applications.

- Panel members should ensure the safe keeping of all applications and related confidential documents (for example, applications, referee reports, scoring spreadsheets or summaries).
- At the conclusion of the grading and panel meetings, members should leave documentation with Royal Society Te Apārangī staff and destroy any documentation remaining elsewhere.
- Panel members should not enter into correspondence or discussion of the contents of the applications with referees, third parties, or the applicants. Any necessary correspondence shall be addressed by the Secretariat of the Tāwhia te Mana Fellowship using the email address [tawhia@royalsociety.org.nz](mailto:tawhia@royalsociety.org.nz).

- The intellectual property of the ideas and hypotheses put forward in the applications should be treated in strict confidence.

## Conflicts of interest

Royal Society Te Apārangi takes the issue of conflicts of interest very seriously. A rigorous position is taken in order to maintain the credibility of the allocation process and to ensure that applications are subjected to fair and reasonable appraisal.

Royal Society Te Apārangi wants to ensure that the panel members are active researchers with an excellent background in research. As these researchers will invariably have connections with some applicants, conflicts of interest will arise. Where these occur for panel members, the following rules will apply.

- All conflicts of interest must be declared in writing to Royal Society Te Apārangi. Society staff will minute all conflicts of interest and actions taken.
- Where a panel member is a family member or close friend of any applicant(s), that person will not assess the proposal or interview the candidate and take no part in the consideration of that proposal. They will hear about the outcome of that proposal when official letters are sent to all applicants.
- If a panel member has an interest in an application, such as collaborating with an applicant or an applicant's group, or is conflicted with the applicant\* then that member shall not assess the proposal or interview the candidate.
- A panel member cannot be a referee for any applicant in the current funding round.
- If the Panel Chair has a conflict of interest then the duties of chairing the interview shall be passed to another panel member.

*\*A panel member is generally deemed to be conflicted if:*

- *They work in the same department as the applicant(s). Where the department is large and contact between the panel member and applicant(s) is minimal, the Chair may deem there to be no conflict.*
- *They work at the same CRI AND are in the same team as the applicant(s) (the level of conflict will depend on the size of the organisation).*
- *They work at the same company as the applicant(s). The level of conflict will depend on the size of the company.*
- *They have co-authored publications with the applicant(s) in the last 5 years.*
- *They have a low level of comfort assessing the application due to their relationship with the applicant(s).*

## Role of Royal Society Te Apārangi staff

### Te mahi a ngā kaimahi a Te Apārangi

It is not the role of Society staff to make funding decisions. Rather, their role is one of facilitation of and “guardianship” over the assessment process, ensuring that the process is credible and defensible. To achieve this, staff will:

- organise all logistical aspects of the process

- assist the panellists in determining realistic timetables for meetings
- provide a framework for assessment
- record funding decisions
- record any conflicts of interest and identify problem areas
- convey funding decisions to applicants and their host organisations - all discussions related to a decision should occur through Society staff
- negotiate contract details with host institutions.

## Timetable

### Wātaka

Date	Activity
From now	Registration of prospective hosts to the Online web-based application system (portal) opens
Thursday 30 May 2024	Proposals Online web-based application system (portal) opens
Thursday 25 July 2024	Proposals Online portal closes, 2pm New Zealand Standard Time (NZST)
Monday 29 July 2024	Royal Society Te Apārangi sends out referee invitations
Wednesday 21 August 2024	Deadline for receipt of applicant-solicited referee reports by the Secretariat of the Tāwhia te Mana Research Fellowships, 2pm NZST
Monday 26 August 202	Applications are available to the current discipline-based panel
Wednesday 06 November 2024	Last day for panellists to submit their scores to the Secretariat
Mid-October 2024	Panel meeting to select two recipients
Early-Mid November 2024	Results announced

**Table 2.** Timetable for 2024

## Contact us

### Whakapā mai

Please address enquiries by email to: [tawhia@royalsociety.org.nz](mailto:tawhia@royalsociety.org.nz) or phone: + 64 4 470 5764

Additional information on the [Tāwhia te Mana Fellowships](#) is available on our website.

## Appendix I: Vision Mātauranga information for applicants

### Āpitianga I: Ngā kōrero mō Wawata Māori mā ngā kaitono

[Vision Mātauranga](#) is a policy about innovation, opportunity and the creation of knowledge that highlights the potential contribution of Māori knowledge, resources and people.

Applicants **must** identify which, if any, of the four Vision Mātauranga themes below are associated with the proposed research. If this is not applicable to your proposed research, you must tick N/A AND provide a brief rationale for this decision.

The four themes are:

- **Indigenous Innovation**, which involves contributing to *economic growth* through distinctive research and development
- **Taiao**, which is concerned with achieving *environmental sustainability* through iwi and hapū relationships with land and sea
- **Hauora/Oranga**, which centres around improving *health and social wellbeing*
- **Mātauranga**, which involves exploring *indigenous knowledge*.

Collection of the % contribution of each Vision Mātauranga theme to the proposed research will form part of our reporting obligations for the [New Zealand Research Information System](#) (NZRIS) (see “Changes” earlier). If you have ticked one or more Vision Mātauranga themes, please consider each theme one at a time. Indicate the proportion of the proposed research that aligns with that theme. It is possible for the combined total to be over 100% (for example, if the proposed research is entirely Mātauranga and also has a Hauora/Oranga theme, the contributions could be 100% and 10% respectively).

If one or more themes apply to your proposed research programme, **up to one additional page will be available for the “Proposed Research” template of the application**. This gives applicants an opportunity to more easily integrate Vision Mātauranga into the conceptual framework and/or research design of the proposed programme, for example, demonstration of consultation, linkages, outcomes or other relevant information. Alternatively, applicants may choose to gather all relevant Vision Mātauranga information under a separate heading Vision Mātauranga heading or use a mix of entering the information where most relevant and at the same time using a separate Vision Mātauranga heading. Where Vision Mātauranga is appropriate to a proposal, it can contribute to the assessment of its overall excellence.

#### How do I decide whether my proposal aligns with Vision Mātauranga?

The five ways of conceptualising Vision Mātauranga in your research may help you decide if this applies to your project. The categories have been adapted from those on the National Science Challenge, Biological Heritage website <https://bioheritage.nz/about-us/vision-matauranga/> hosted by Manaaki Whenua Landcare Research. Please note, however, that these categories are fluid. There may well be overlap between them as in categories b and c in terms of the nature and degree of relevance to Māori, and not every point in each category need apply. The original categories were set out by MBIE in information for the Endeavour Fund c. 2015.

**a. Research with no specific Māori component**

- No mātauranga Māori (Māori knowledge) is used.
- Māori are not associated with the research process (for example, not on any research management / advisory / governance panels, it is not inclusive of Māori land or institutions, nor the subject of any component of the research).
- Work is not likely to be of greater direct relevance to Māori than members of any other group.

**b. Research specifically relevant to Māori**

- There is specific relevance to Māori.
- Mātauranga Māori may be used in a minor way to guide the work and its relevance to Māori.
- It includes work that contributes to Māori aspirations and outcomes.

**c. Research involving Māori**

- Mātauranga Māori may be incorporated in the project, but is not central to the project.
- Research is specifically and directly relevant to Māori and Māori are involved in the design and/or undertaking of the research.
- The work typically contributes to Māori (for example, iwi, hapū, organisations) aspirations and outcomes.

**d. Māori-centred research**

- The project is Māori led, and where Mātauranga Māori is used alongside other knowledges (for example, through frameworks, models, methods, tools, etc...).
- Kaupapa Māori research is a key focus of the project.
- Research is typically collaborative or consultative, with direct input from Māori stakeholders.
- There is alignment with and contribution to Māori (for example, iwi, hapū, organisations) aspirations.

**e. Kaupapa Māori research**

- Mātauranga Māori is incorporated, used and understood, as a central focus of project and its findings.
- Research is grounded in te ao Māori and connected to Māori philosophies and principles.
- Research typically uses kaupapa Māori research methodologies.
- Te reo Māori may be a central feature to this kaupapa or research activity, and the applicant has medium to high cultural fluency or knowledge of tikanga and reo.
- The research is generally led by a Māori researcher; non-Indigenous researchers may carry out research under the guidance/mentoring of a Māori researcher.
- Māori participation (iwi/hapū/marae/individual) is high.
- The work contributes strongly to Māori (for example, iwi, hapū, organisations) aspirations and outcomes and is mana enhancing.

## Developing a Vision Mātauranga statement

It is important to keep in mind that there is no single approach or prescription for Vision Mātauranga: one size does not fit all and there are many possible ways of addressing Vision Mātauranga. Vision Mātauranga should not, however, be seen as an add-on, nor should it be treated as separate from the research, methods or people involved in the project. A holistic approach that considers reciprocity and relationships is therefore desirable. It is also essential that any costs associated with Vision Mātauranga capability development and engagement are accounted for in the budget.

Vision Mātauranga does not begin and end with your Vision Mātauranga statement. You should document how you have considered Vision Mātauranga and demonstrate applicable actions and relationships throughout the research. The following questions may be useful to consider when conceptualising and writing your project:

- Have you co-created the research topic/issue with an iwi or Māori organisation?
- What does working in partnership with iwi mean to you as a researcher?
- To what extent have you discussed the research with Māori stakeholders and agreed on the methodology you will use?
- Was there full disclosure and informed consent to the proposed research with Māori stakeholders? How has that agreement/informed consent been agreed to?
- Has the budget been disclosed and agreed to with Māori partners? Is there provision in that budget for Māori involvement, capability development and consultation?
- What provisions have you made to ensure there is appropriate technology transfer to Māori stakeholders as the research proceeds and as findings become available towards the end of the project?
- Are there benefits to Māori? What are they? And how have these been agreed with Māori partners?
- How is the project an opportunity to build the capacity of Māori researchers or students in your discipline?
- How will you share the research outcomes with Māori?
- Has there been agreement about the intellectual property ownership of research findings with Māori partners? What is the nature of that agreement?
- Is there a need for members of the research team to be proficient in te reo? How has this aspect been addressed?
- Is there a Tiriti o Waitangi component or requirement in your research?
- Is the research mana enhancing?

## Vision Mātauranga Resources

Below you will find a non-exhaustive list of published resources that describe, discuss, and talk about how researchers have engaged with Vision Mātauranga and kaupapa Māori research. These range from early conceptions of Vision Mātauranga to more recent frameworks. The resources underscore the diverse ways Vision Mātauranga may be approached across disciplines and methodologies.

For a glossary provided to panellists and referees of commonly used Māori concepts, words and phrases commonly seen in Fellowship proposals, please see [Appendix II](#).

Allen, W., Jamie M. Ataria, J. M., Apgar, J. M., Harmsworth, G., and Tremblay, L. A. (2009). Kia pono te mahi putaiao—doing science in the right spirit. *Journal of the Royal Society of New Zealand*, 39:4, 239-242. DOI: [10.1080/03014220909510588](https://doi.org/10.1080/03014220909510588)

Crawford, S. (2009). Mātauranga Maori and western science: The importance of hypotheses, predictions and protocols, *Journal of the Royal Society of New Zealand*, 39:4, 163-166. DOI: [10.1080/03014220909510571](https://doi.org/10.1080/03014220909510571)

Broughton, D. (Te Aitanga-a-Hauiti, Taranaki, Ngāti Porou, Ngāpuhi), and McBreen, K. (Waitaha, Kāti Māmoe, Ngāi Tahu). (2015). Mātauranga Māori, tino rangatiratanga and the future of New Zealand science. *Journal of the Royal Society of New Zealand*, 45:2, 83-88. DOI: [10.1080/03036758.2015.1011171](https://doi.org/10.1080/03036758.2015.1011171)

Kana, F. and Tamatea, K. (2006). Sharing, listening, learning and developing understandings of Kaupapa Māori research by engaging with two Māori communities involved in education. *Waikato Journal of Education*, 12, 9-20. <https://researchcommons.waikato.ac.nz/bitstream/handle/10289/6198/Kana%20Sharing.pdf?sequence=3&isAllowed=y>

Macfarlane, S., Macfarlane, A. and Gillon, G. (2015) Sharing the food baskets of knowledge: Creating space for a blending of streams. In A. Macfarlane, S. Macfarlane, M. Webber, (eds.), *Sociocultural realities: Exploring new horizons*. Christchurch: Canterbury University Press, 52-67.

Moewaka Barnes, H. (2006). Transforming Science: How our Structures Limit Innovation. *Social Policy Journal of New Zealand Te Puna Whakaaro*, 29, 1-16. <https://www.msd.govt.nz/documents/about-msd-and-our-work/publications-resources/journals-and-magazines/social-policy-journal/spj29/29-pages-1-16.pdf>

Pihama, L., Tiakiwai, S.-J., and Southey, K. (eds.). (2015). *Kaupapa rangahau: A reader. A collection of readings from the Kaupapa Rangahau workshops series*. (2nd ed.). Hamilton, New Zealand: Te Kotahi Research Institute. [https://researchcommons.waikato.ac.nz/bitstream/handle/10289/11738/Kaupapa%20Rangahau%20-%20A%20Reader\\_2nd%20Edition.pdf?sequence=7&isAllowed=y](https://researchcommons.waikato.ac.nz/bitstream/handle/10289/11738/Kaupapa%20Rangahau%20-%20A%20Reader_2nd%20Edition.pdf?sequence=7&isAllowed=y)

Smith, L. T., Maxwell, T. K., Puke, H., and Temara, P. (2016). Indigenous knowledge, methodology and mayhem: What is the role of methodology in producing indigenous insights? A discussion from Mātauranga Māori. *Knowledge Cultures*, 4(3), 131–156. <https://addletonacademicpublishers.com/component/content/article?id=2834:feature-article-indigenous-knowledge-methodology-and-mayhem-what-is-the-role-of-methodology-in-producing-indigenous-insights-a-discussion-from-matauranga-maori>

## Appendix II: Glossary of te reo Māori terms

### Āpitianga II: Papakupu o ngā kupu reo Māori

Definitions taken from [maoridictionary.co.nz](http://maoridictionary.co.nz)

Ka mihi ki a Ahorangi Angus Macfarlane, Te Whare Wānanga o Waitaha, mō tēnei. With thanks to Professor Angus Macfarlane, University of Canterbury, for his input.

Aotearoa	the Māori name for New Zealand
Aroha	affection, sympathy, charity, compassion, love, empathy
Atua	ancestor with continuing influence, god, demon, supernatural being, deity, ghost, object of superstitious regard, strange being - although often translated as “god” and now also used for the Christian God
Hapū	kinship group, clan, tribe, subtribe - section of a large kinship group and the primary political unit in traditional Māori society. It consisted of a number of whānau sharing descent from a common ancestor, usually being named after the ancestor, but sometimes from an important event in the group’s history. A number of related hapū usually shared adjacent territories forming a looser tribal federation (iwi)
Hau kāinga	home, true home, local people of a marae, home people
Hauora	health, wellbeing
Hui	gathering, meeting, assembly
Iwi	extended kinship group, tribe, nation, people, nationality, race - often refers to a large group of people descended from a common ancestor and associated with a distinct territory
Kāinga	home, address, residence, village, settlement, habitation, habitat, dwelling
Kaitiaki	trustee, minder, guard, custodian, guardian, caregiver, keeper, steward
Kaitiakitanga	guardianship, stewardship, trusteeship
Kaumātua	adult, elder, elderly man, elderly woman, senior person - a person of status within the whānau or iwi
Kaupapa	philosophy, topic, policy, matter for discussion, plan, purpose, scheme, proposal, agenda, subject, programme, theme, issue, initiative



Kaupapa Māori	Māori approach, Māori topic, Māori customary practice, Māori institution, Māori agenda, Māori principles, Māori ideology - a philosophical doctrine, incorporating the knowledge, skills, attitudes and values of Māori society
Koha	gift, present, offering, donation, contribution - especially one maintaining social relationships and has connotations of reciprocity
Kōiwi tangata	human bones or remains
Kōrero	to tell, say, speak, read, talk, address; speech, narrative, story, news, account, discussion, conversation, discourse, statement, information
Mamae	be painful, sore, hurt
Mana	prestige, authority, control, power, influence, status, spiritual power, charisma - mana is a supernatural force in a person, place or object. Mana goes hand in hand with tapu, one affecting the other. The more prestigious the event, person or object, the more it is surrounded by tapu and mana. Mana is the enduring, indestructible power of the atua and is inherited at birth, the more senior the descent, the greater the mana. The authority of mana and tapu is inherited and delegated through the senior line from the atua as their human agent to act on revealed will. Since authority is a spiritual gift delegated by the atua, man remains the agent, never the source of mana. This divine choice is confirmed by the elders, initiated by the tohunga under traditional consecratory rites (tohi). Mana gives a person the authority to lead, organise and regulate communal expeditions and activities, to make decisions regarding social and political matters. A person or tribe's mana can increase from successful ventures or decrease through the lack of success
Manaakitanga	hospitality, kindness, generosity, support - the process of showing respect, generosity and care for others
Māori	Māori, Indigenous New Zealander, Indigenous person of Aotearoa/New Zealand - a new use of the word resulting from Pākehā contact in order to distinguish between people of Māori descent and the colonisers
Marae	courtyard - the open area in front of the whareniui (meeting house), where formal greetings and discussions take place. Often also used to include the complex of buildings around the marae
Mātauranga	knowledge, wisdom, understanding, skill - sometimes used in the plural; education - an extension of the original meaning and commonly used in modern Māori with this meaning

Mauri	life principle, life force, vital essence, special nature, a material symbol of a life principle, source of emotions - the essential quality and vitality of a being or entity. Also used for a physical object, individual, ecosystem or social group in which this essence is located
Moana	sea, ocean, large lake
Te Moana-nui-a-Kiwa	the Pacific Ocean
Pākehā	English, foreign, European, exotic - introduced from or originating in a foreign country; New Zealander of European descent - probably originally applied to English-speaking Europeans living in Aotearoa/ New Zealand
Pepeha	tribal saying, tribal motto, proverb (especially about a tribe), set form of words, formulaic expression, saying of the ancestors, figure of speech, motto, slogan - set sayings known for their economy of words and metaphor and encapsulating many Māori values and human characteristics
Pūrākau	myth, ancient legend, story
Rangatahi	younger generation, youth
Rangatira	chief (male or female), chieftain, chieftainess, master, mistress, boss, supervisor, employer, landlord, owner, proprietor - qualities of a leader is a concern for the integrity and prosperity of the people, the land, the language and other cultural treasures (for example, oratory and song poetry), and an aggressive and sustained response to outside forces that may threaten these
Rangatiratanga	chieftainship, right to exercise authority, chiefly autonomy, chiefly authority, ownership, leadership of a social group, domain of the rangatira, noble birth, attributes of a chief
Rohe	boundary, district, region, territory, area, border (of land)
Rūnanga	council, tribal council, assembly, board, boardroom, iwi authority - assemblies called to discuss issues of concern to iwi or the community
Tamariki	children - normally used only in the plural
Tāne	husband, male, man
Tāngata whenua	local people, hosts, Indigenous people - people born of the whenua, i.e. of the placenta and of the land where the people's ancestors have lived and where their placenta are buried

Taonga	treasure, anything prized - applied to anything considered to be of value including socially or culturally valuable objects, resources, phenomenon, ideas and techniques
Tapu	be sacred, prohibited, restricted, set apart, forbidden, under atua protection; restriction, prohibition - a supernatural condition. A person, place or thing is dedicated to an atua and is thus removed from the sphere of the profane and put into the sphere of the sacred. It is untouchable, no longer to be put to common use
Te reo Māori	Māori language
Te Tiriti o Waitangi	The Treaty of Waitangi
Tikanga	correct procedure, custom, habit, lore, method, manner, rule, way, code, meaning, plan, practice, convention, protocol - the customary system of values and practices that have developed over time and are deeply embedded in the social context
Tino rangatiratanga	self-determination, sovereignty, autonomy, self-government, domination, rule, control, power
Tipuna	ancestor, grandparent, grandfather, grandmother - singular form of tīpuna and the eastern dialect variation of tupuna
Tohunga	skilled person, chosen expert, priest, healer - a person chosen by the agent of an atua and the tribe as a leader in a particular field because of signs indicating talent for a particular vocation
Tupuna	ancestor, grandparent – singular form of tūpuna and the western dialect variation of tipuna
Tūrangawaewae	domicile, standing, place where one has the right to stand - place where one has rights of residence and belonging through kinship and whakapapa
Wairua	spirit, soul - spirit of a person which exists beyond death. It is the non-physical spirit, distinct from the body and the mauri
Wahine/wāhine	wahine - woman, female, lady, wife; wāhine - women, females, ladies, wives – plural form of wahine; female, women, feminine
Wairuatanga	spirituality
Wānanga	seminar, conference, forum, educational seminar; tribal knowledge, lore, learning - important traditional cultural, religious, historical, genealogical and philosophical knowledge; tertiary institution that caters for Māori learning needs - established under the Education Act 1990

Whaikōrero	oratory, oration, formal speech-making, address, speech - formal speeches usually made by men during a pōhiri/pōwhiri and other gatherings
Whakapapa	genealogy, genealogical table, lineage, descent - reciting whakapapa was, and is, an important skill and reflected the importance of genealogies in Māori society in terms of leadership, land and fishing rights, kinship and status. It is central to all Māori institutions. There are different terms for the types of whakapapa and the different ways of reciting them including: tāhū (recite a direct line of ancestry through only the senior line); whakamoe (recite a genealogy including males and their spouses); taotahi (recite genealogy in a single line of descent); hikohiko (recite genealogy in a selective way by not following a single line of descent); ure tārewa (male line of descent through the first-born male in each generation)
Whakataukī	proverb, significant saying, formulaic saying, cryptic saying, aphorism. Like whakataukī and pepeha they are essential ingredients in whaikōrero
Whānau	extended family, family group, a familiar term of address to a number of people - the primary economic unit of traditional Māori society. In the modern context the term is sometimes used to include friends who may not have any kinship ties to other members
Whānaungatanga	relationship, kinship, sense of family connection - a relationship through shared experiences and working together which provides people with a sense of belonging. It develops as a result of kinship rights and obligations, which also serve to strengthen each member of the kin group. It also extends to others to whom one develops a close familial, friendship or reciprocal relationship
Whenua	land - often used in the plural; territory, domain; country, land, nation, state

# Appendix III: DORA

## Āpitianga III: DORA

RETHINKING RESEARCH ASSESSMENT  
**UNINTENDED COGNITIVE & SYSTEM BIASES**



Judgment and decision-making biases that impact how we weigh options and make choices have been shown to result in inequitable review, promotion, and hiring practices. While recognizing these biases at a personal level is important, creating new structural and institutional conditions to reduce bias can be even more valuable.

