



# agenda

## Te Komiti Rangahau o Unitec | Unitec Research Committee

Date:	2024-06-13
Scheduled Start:	1300h
Scheduled End:	1500h
Location:	Microsoft Teams

### SECTION 1 NGĀ KUPU ARATAKI | PRELIMINARIES

1. Karakia Timatanga | Opening Prayer
2. Mihi Whakatau | Welcome from the Chair
3. Membership
4. Terms of Reference

### SECTION 2 STANDING ITEMS

1. Ngā Whakapāha | Attendance, Apologies & Quorate Status
2. Pitopito Kōrero o Ngā Hui | Minutes of the Previous Meetings
3. Mahia Atu | Matters Arising

### SECTION 3 MEA HEI WHAKAAE | ITEMS TO APPROVE

1. Research Centre Update – Cybersecurity Research Centre

### SECTION 4 WHAKAWHITI KŌRERO | ITEMS FOR DISCUSSION

1. Review of the Unitec Research Strategy Action Plan
2. Sector-wide Research Awards

### SECTION 5 NGĀ TUKUNGA | ITEMS TO RECEIVE

1. Update on SSAG and UAG Consultations
2. 2023 Research Centre Reports
  - a. Ngā Wai a Te Tūi, Māori & Indigenous Research Centre
  - b. Digital Heritage Research Centre
  - c. Applied Molecular Solutions Research Centre

## SECTION 6 KUPU WHAKAMUTUNGA | CLOSING

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1. Ētahi Kaupapa Anō | Any Other Business
2. Komiti Self-Assessment
3. Karakia Whakamutunga | Closing Karakia

## SECTION 1 NGĀ KUPU ARATAKI | PRELIMINARIES

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### Item 1.1 Karakia Tīmatanga | Opening Prayer

KARAKIA TĪMATANGA	OPENING PRAYER
<i>Manawa mai te mauri nuku</i>	<i>Embrace the power of the earth</i>
<i>Manawa mai te mauri rangi</i>	<i>Embrace the power of the sky</i>
<i>Ko te mauri kai au</i>	<i>The power I have</i>
<i>He mauri tipua</i>	<i>Is mystical</i>
<i>Ka pakaru mai te pō</i>	<i>And shatters all darkness</i>
<i>Tau mai te mauri</i>	<i>Cometh the light</i>
<i>Haumi ē, Hui ē, Tāiki ē!</i>	<i>Join it, gather it, it is done!</i>

### Item 1.2 Mihi Whakatau | Welcome from the Chair

### Item 1.3 Te Komiti Rangahau o Unitec Membership

Hadley Brown (Chair)	Nominee of Director Research & Enterprise
Daisy Bentley-Gray (Emerging)	Nominee of Director, Pacific Success
Tanya White (Early Career)	Nominee of Director, Māori Success
Dr Helen Gremillion (Professor)	Healthcare and Social Practice
Dr Yusef Patel (Early Career)	Architecture
Kambiz Bornha	Building Construction
Dr Lian Wu (Associate Professor)	Healthcare and Social Practice
Dr Hamid Sharifzadeh (Professor)	Computing and Information Technology
Dr Leon Tan (Associate Professor)	Creative Industries
Dr Kristie Cameron (Associate Professor/ Early Career)	Environmental & Animal Sciences
Khaled Ibrahim	Applied Business
Vacant	Bridgepoint
Dr Norasieh Md Amin (Subject Librarian)	Library
Vacant (Student Rep)	Nominee of Student Council
Arun Deo (Research Advisor)	Tūāpapa Rangahau
<b>In attendance:</b> Brenda Massey (Acting Secretary)	Tūāpapa Rangahau

## **Item 1.4                      Te Komiti Rangahau o Unitec Terms of Reference**

The powers and functions of Te Komiti Rangahau o Unitec (URC) shall be to:

- a. Foster the conduct of research, and support the achievement of Unitec’s strategic research, enterprise and innovation priorities.
- b. Propose and advise on strategic directions and priorities for research, enterprise, and innovation.
- c. Provide expert advice on institutional policy.
- d. Develop protocols and guidelines and make recommendations in relation to the conduct of research, enterprise, and innovation.
- e. Oversee the Grants Advisory Committee and the reporting of funded projects.
- f. Encourage and enhance the development of the research, enterprise, and innovation culture along with student and staff research capability, with emphasis on the development of Māori and Pacific research capability.
- g. Oversee the monitoring of research outputs and research reporting.
- h. Foster Māori and Pacific, transdisciplinary, collaborative and externally engaged research, enterprise, and innovation.

## **SECTION 2                      STANDING ITEMS**

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### **Section 2.1                      Ngā Whakapāha | Attendance, Apologies & Quorate Status**

#### **RECOMMENDATION**

That the committee accepts the apologies of today’s meeting.

### **Section 2.2                      Pitopito Kōrero o Ngā Hui | Minutes of the Previous Meetings**

*refer to [pg5](#)*

#### **RECOMMENDATION**

That the committee approves the minutes of the meeting of 2024-05-09.

### **Section 2.3                      Mahia Atu | Matters Arising**

*refer to [pg15](#)*

## **SECTION 3                      MEI HEI WHAKAAE | ITEMS TO APPROVE**

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### **Section 4.1                      Research Centre Update – Cybersecurity Research Centre**

*refer to [pg16](#)*

## **SECTION 4                      WHAKAWHITI KŌRERO | ITEMS FOR DISCUSSION**

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### **Section 4.1                      Review of the Unitec Research Strategy Action Plan**

refer to [pg17](#)

## **Section 4.2                      Sector -wide Research Awards**

refer to [pg30](#)

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## **SECTION 5                      NGĀ TUKUNGA | ITEMS TO RECEIVE**

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### **Section 5.1                      Update on SSAG and UAG Consultations**

refer to [pg32](#)

### **Section 5.2                      2023 Research Centre Reports**

refer to [pg34](#)

- a) Ngā Wai a Te Tūī, Māori & Indigenous Research Centre [pg35](#)
- b) Digital Heritage Research Centre [pg40](#)
- c) Applied Molecular Solutions Research Centre [pg46](#)

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## **SECTION 6                      KUPU WHAKAMUTUNGA | CLOSING**

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### **Section 6.1                      Ētahi Kaupapa Anō | Any Other Business**

### **Section 6.2                      Komiti Self-Assessment**

refer to [pg52](#)

### **Section 6.3                      Karakia Whakamutunga | Closing Karakia**

<b>TE KARAKIA WHAKAMUTUNGA</b>	<b>CLOSING PRAYER</b>
<i>Ka wehe atu tātou</i>	<i>We are departing</i>
<i>I raro i te rangimārie</i>	<i>Peacefully</i>
<i>Te harikoa</i>	<i>Joyfully</i>
<i>Me te manawanui</i>	<i>And resolute</i>
<i>Haumi ē, Hui ē, Tāiki ē!</i>	<i>We are united, progressing forward!</i>



# minutes

## Te Komiti Rangahau o Unitec | Unitec Research Committee

Date:	2024-05-09
Scheduled Start:	1300h
Scheduled End:	1500h
Location:	Microsoft Teams

<b>MEETING OPENED:</b>	1300h
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### SECTION 1 – NGĀ KUPU ARATAKI | PRELIMINARIES

#### Item 1.1 Karakia Tīmatanga | Opening Prayer

#### Item 1.2 Mihi Whakatau | Welcome from the Chair

The Chair warmly welcomed members of the committee to the meeting. It was good to have student representation on the committee today, with Irene Wu joining the meeting as Acting Student Rep.

### SECTION 2 – STANDING ITEMS

#### Item 2.1 Ngā Whakapāha | Attendance, Apologies & Quorate Status

##### **Members Present**

1. Hadley Brown (Chair)
2. Tanya White
3. Arun Deo (until 2.20pm)
4. Nora Md Amin
5. Daisy Bentley-Gray
6. Kristie Cameron
7. Helen Gremillion
8. Leon Tan
9. Hamid Sharifzadeh
10. Irene Wu
11. Kahlid Ibrahim (from 1.40pm)

Total members represented: 11 members

##### **Apologies**

1. Yusef Patel
2. Lian Wu
3. Kambiz Borna

Total apologies:

3 members

#### **MOTION**

**That the committee accepts the apologies for today's meeting.**

**Moved: Daisy Bentley-Gray**

**Seconded: Helen Gremillion**

**MOTION CARRIED**

#### **Quorate Status**

A minimum of seven representatives is required; the meeting was quorate.

#### **Hunga Mahi | Staff in Attendance**

1. Brenda Massey, Acting Secretary

#### **Item 2.2 Pitopito Kōrero o Ngā Hui | Minutes of Previous Meeting**

#### **MOTION**

**That the committee approves the minutes of the 2024-04-11 meeting as a true and accurate record.**

**Moved: Kristie Cameron**

**Seconded: Leon Tan**

**MOTION CARRIED**

#### **Item 2.3 Mahia Atū | Matters Arising**

<b>Agenda Item(s)</b>	<b>Action</b>	<b>Responsible</b>	<b>Outcome</b>
5.1	Draft a memo summarising the committee's feedback on the cancellation of the PBRF 2026 QE and the establishment of the University and Science Advisory Groups for Marcus Williams to send to Martin Carroll.	Brenda Massey / Marcus Williams	Complete
5.2	Draft letters to the three 2023 ECR funding report writers thanking and acknowledging them for their reports and mahi and encapsulating the committee's feedback on them.  Liaise with the PIs of the other two 2023 ECR funded projects to obtain their final reports.	Brenda Massey / Marcus Williams  Brenda Massey	Complete  One of the two reports was presented to the committee today (item 5.1 refers). The other awardee no longer works at Unitec and did not furnish a report

			before they left.
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### SECTION 3 – MEA HEI WHAKAAE | ITEMS TO APPROVE

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There were no items to approve this month.

### SECTION 4 - WHAKAWHITI KÖRERO | ITEMS FOR DISCUSSION

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#### **Section 4.1                      IT Policy Changes Impacting on Research**

Leon Tan introduced a paper to provide information to the committee on recent changes to Unitec's IT policy that are impacting negatively on research activities in the School of Creative Industries and to ascertain whether these changes are impacting other schools.

Creative Industries are finding that it has become increasingly difficult to instal and utilise non-standard software that's not part of the Unitec mandated suite such as Teams and MS Office. Many staff in Creative Industries rely on a range of non-standard software for both teaching and research purposes, e.g., some staff recently went through the approval process to purchase a piece of projection mapping software for a public event they're doing for Matariki – projecting animations onto the exterior of Te Noho Kotahitanga. Leon co-edits an American journal, so he utilises Dropbox and Signals to communicate with the rest of the journal team. It is time-consuming having to approach IT every time staff want to instal software or software updates. It can happen that software stops working if you miss three or four updates.

In conversation with some of the IT technicians, it seems that there will soon be further tightening of the IT Policy, for example in the form of audits of Unitec devices, with staff being asked to justify every single piece of software that's been installed that's non-standard. This is a concern. The existing IT Policy is clear that IT is there to support teaching and research and collaborative activities around those things. Specifically in Section 1.1 of the Electronic Devices and Systems Policy ("Policy Purpose") it is stated that:

- The policy supports Unitec's strategic plan by...
  - Supporting innovation in teaching and learning.
- The purpose of providing staff and student's access to electronic devices and systems is to...
  - Foster collaboration and communities of practice in teaching, learning and research - internally, nationally and internationally.
  - Enable access to information and resources that staff and students need to complete their work or study.

It is not felt that the current IT service scenario is really keeping to that policy.

Leon asked if others are experiencing similar issues and/or if the committee might consider providing feedback to IT and/or Academic Committee on ideally the need for IT to continue supporting teaching and research and our ability to utilise non-standard software where it's relevant.

The School of Computing has also been experiencing issues. A few meetings were had with IT and the impression was that, with the establishment of Te Pūkenga, Unitec policies needed to be consistent with the policies and procedures of other business divisions. However, now we're devolving back to a regional model, that rationale no longer holds up.

Computing has capstone students and research students who are affected. There are many new technologies in computing that require the installation of software for education and research purposes. It is time consuming to continually have to engage with IT approval processes, particularly as things are so disrupted at Unitec currently. The school did trial some workarounds, e.g., setting up some test computers that will test and run new software. One of the labs has some computers that aren't managed by IT, as they aren't connected to the Unitec network. These initiatives did not prove to be very satisfactory solutions, so the school pushed further and an 'exceptional process' was established. Through that exceptional process, staff can request up to six months or 12 months of access to non-standard software. However, permission is only granted for a limited time and the approval process is laborious and staff found this frustrating. It also seemed that IT were not overly comfortable with granting exemptions, even though it was suggested as a workaround. The exemption process therefore hasn't been used since mid-last year.

The school does have some computers in capstone if students need them, and they also have some laptops which are used specifically for research. If computers aren't connected to the Unitec network, IT appears to be happy with this, and in fact this is an option if you do not need to be connected to the network for reasons such as printing out documents.

The Library hosts referencing management software and is also struggling with an inability to update the software due to the controls effected by IT.

Leon added that once or twice a week there might be an update for an app, and every single time the school has to go through an approval chain that then results in a technician having to literally come to a device and type in a password to enable the update to be made. It seems a bit overboard, notwithstanding the security concerns which are understandable, we are only talking about very basic software.

While the issues discussed weren't seen as being as relevant or pressing by some of the other schools, the committee did sympathise with the difficulties being encountered by the School of Creative Industries and the School of Computing.

It was queried whether the situation could be an example of institutional obstructivism where there's unreasonable guardrails in place, or whether in fact restrictions have been put in place for good reason. If they are in place for good reason, then has IT identified what those reasons are? Has there been use and abuse, e.g., software being installed that has compromised the network? Is there a legitimate concern that we need to be worried about?

Hamid Sharifzadeh responded that IT will have a good reason: security and the need to protect the network and Unitec resources. It is common practice across companies to have good IT security in place. When you have a company device then the software will be managed by their IT team and then you can't just instal anything you want. While it is important to have policies and procedures in place, at the same time, they can create a lot of issues for their people. There needs to be a balance. It is so important to have timely software available, especially for teaching and research endeavours, and if the process for approvals becomes overly protracted it obviously effects the ability for us to function.



Unitec has still got the overhang of Te Pūkenga and its bureaucratic policies and we're now in the process of trying to disentangle from that. This could be a good opportunity for us to advocate to IT and also to Academic Committee for a revisit of this particular policy. It would strengthen our position if we can give some very specific examples of how the policy is affecting academic endeavour, particularly in the teaching and research space. To this end, some good examples have been provided today. Often what happens with central services at Unitec is, if there's a single incident, there sometimes can be a bit of an overreaction with controls. We also have to posit, in any feedback to IT, is the policy change reasonable? What were the causes of its activation?

Leon indicated that he is happy to contribute some time towards a submission to IT and Academic Committee.

**Action:** Brenda Massey to summarise the committee's discussion and circulate it to the committee, requesting any additional input, particularly in the form of specific examples where IT policy and procedures are hindering teaching and research endeavours. This will inform a submission to IT and Academic Committee, led by Leon Tan.

## **Section 4.2      Emerging Researcher Start Up Fund**

The committee received and provided feedback on the application form and guidelines for the Emerging Researcher Start Up Fund as follows:

- The committee sees the new fund as an excellent and timely initiative. It is good to have a mechanism with a fast turnaround between application and decision. The guidelines state that the fund is intended to get staff started on something they are interested in. It is flexible, intended to activate interest in research, so it's pretty open ended which is good.
- It would be good to include with the definition of an emerging researcher that it includes anyone engaged in research activity up to a level of early career researcher. It could be useful to include the definition of an early career researcher, to clarify that this fund is for anyone 'pre' early career in order that there isn't any confusion about when an emerging researcher crosses over into becoming an early career researcher, at which point there are a number of other funding products for which they become eligible for.
- It was suggested that the maximum grant could be increased a little. \$500 doesn't go very far. Maybe \$750 or \$1,000 might be better?
- It was queried what the fund can be used for specifically. Is it possible to include some examples of what will and won't be funded? Is it clear enough that funding can't be used for dissemination? Because we have separate devolved dissemination funding around which there is a layered process of approvals.
- Kristie Cameron commented that an applicant from EAS has been allocated funding and will be using it for equipment.
- Dissemination funding excludes certain activities around the production of research and for some fields, sometimes equipment or software could be what's required as a first step towards having something to actually disseminate.

**Action:** Brenda Massey to provide the committee's feedback to Marcus Williams, Director Research and Enterprise.

### **Section 4.3                      Science System Advisory Group: Submissions Sought for Phase 1**

The committee was presented with the questions the Science System Advisory Group (SSAG) is seeking submissions on. Jamie Smiler, National Research Director, Te Pūkenga, is organising a group response to the SSAG's request for submissions.

The University Advisory Group (UAG) is also undertaking a consultation that will consider the role of universities in New Zealand. Jamie is keen to receive feedback from the URC on the UAG's consultation, however the submission questions were released after the agenda for this meeting had been circulated and submissions are due ahead of the committee's next meeting. Tūāpapa Rangahau will circulate the consultation questions to the committee in the coming days and, subject to committee members' availability, will convene a meeting to gather feedback on the submission questions.

The Chair directed the committee to focus specifically on those questions that have an impact on vocational education and training. The questions are broad and would need more time devoted to them than is available today.

A summary of the Unitec Research Committee's ruminations and discussion on the SSAG consultation is as follows:

1. Membership of the SSAG consists mainly of industry leaders and university professors. It is lamentable that the ITP sector is not represented.
2. Unitec has historically received the greatest percentage of PBRF funding that is allocated to the ITP sector, and it would be hoped that this would lend credibility to our thoughts on how research should be resourced and supported.
3. Both the SSAG and UAG are led by Professor Sir Peter Gluckman. While the two groups are operating separately, sharing a chair will allow for connections to be made between the two systems where appropriate, and that is a good thing.
4. The list of questions is quite overwhelming and very broad brush, although it is acknowledged that the sub-questions are prompts to define the scope of the headline questions. All we can do today is keep our conversation very high level around themes. It is hoped that further opportunities will be offered to provide specific and targeted feedback. It will be easier to provide feedback when we have an actual change proposal in front of us.
5. It is acknowledged that Jamie Smiler is a very strong advocate for research, however with Te Pūkenga in the process of being disestablished, will a Te Pūkenga response to the SSAG's consultation hold any weight? Perhaps in addition to contributing to a Te Pūkenga response, Unitec should make its own submission?

#### **Question set 1 – The Science, Innovation and Technology System.**

1. *What future should be envisaged for a publicly supported science, innovation and technology system?*
  - That's a huge question. Firstly, what is the definition of science? There needs to be a definition that includes 'sub-categories' of science. Because if you look later under question set 4, the humanities and social sciences are mentioned. Science in the context of this question set seems to really mean research rather than what some might understand science to be. Sometimes terms such as 'science, innovation and technology' can sound exclusive to STEM. Science must be all-inclusive, especially as the social sciences are one of many areas of research that are typically not as well funded as the 'hard sciences'.

2. *What are the opportunities, challenges and barriers that need to be addressed to build a more thriving research, science, innovation, and technology system that delivers positive sustainable growth and prosperity for New Zealand?*

- This question appears to be quite focused on economic growth, but what about more holistic outcomes such as wellbeing? Prosperity implies wealth, but we don't know whether that wealth is social wealth or material wealth.
- There are some key words in social science that we don't see here, e.g., inequality and social justice.
- The UN's Sustainable Development Goals (SDGs) provide a shared blueprint for prosperity for people and the planet. They recognise that ending poverty and other deprivations must go hand-in-hand with strategies that improve health and education, reduce inequality, and spur economic growth – all while tackling climate change and working to preserve our oceans and forests. The SSAG should consider the SDGs in the context of 'prosperity'.
- The SDGs are important to Pacific peoples, particularly the goals around gender equality, elimination of poverty and ensuring everyone has access to education. They could be part of what we look at in terms of research opportunities and partnering with Pacific countries as well. They could inform what a Pacific research strategy might look like (7.f.).
- Equity is a good term to include in our response, for example when opportunities become available to Pacific researchers, Pacific researchers in ITPs are often excluded, with grants being awarded to Pacific researchers only in universities. The research landscape needs to be equitable for all researchers, and there should be measures to ensure a fair system for all researchers, whether they are Māori, Pacific or others. Everyone should have the same access to funding with no one favoured simply because they work at a university or a CRI.
- One of the opportunities and challenges is to recognise the legitimacy of Indigenous science and knowledge, including Mātauranga Māori (MM). If we decouple hard science from what we call soft science, and even the humanities, we get a much poorer outcome.
- Another opportunity is the applied nature of the research we conduct at Unitec, which is informed by direct community and industry interactions. We often provide solutions in real time that are practical and implementable and economically efficient. Yet at this point in time, we've been left off the advisory group table. We occupy a niche, providing a type of research that is very different from what the universities provide.

3. *What principles should underpin the design of a science, innovation, and technology system for New Zealand, given its demographic composition and distinctive cultural makeup, its geographical position, and its social, environmental and economic futures?*

- A thorough and rigorous piece of work was undertaken in preparation for the upcoming (now cancelled) PBRF round to redefine research. Te Tiriti and Indigenous epistemologies were front and centre in those considerations. A huge amount of work has been summarily put aside in the cancellation of the PBRF. Why does the SSAG not use it to inform their mahi?
- A set of research definitions, QA definitions and guidelines is also being circulated by NZQA. NZQA monitors and approves our programmes, so their guidance should also be considered by the SSAG.

#### Question set 4 – Contestable Research

- The SSAG should consider prioritising applied research for research investment. Unitec's unique offering, as articulated in our Research Strategy, is research with an applied and practical focus, and our strong relationships with iwi, hapū, community and industry. Support for applied research would be helpful to so many other things that have been discussed above in terms of making innovation more relevant to societies, providing more opportunities, social equity etc. The emphasis on iwi, hapū *and* community is important. If you think of applied research only in terms of industry, then there could easily be a focus limited to meeting economic imperatives as defined by competitive business enterprises. Whereas community interests often speak to priorities that are quite different to neo-liberal discourses that would be operating in business.
- Unitec is unique in its ability to mobilise students at both undergraduate and postgraduate levels to be involved in research that connects directly with community participants. This is important for impact, but it also develops students' sense of self belonging and serves to build their skills towards a future career in research at an earlier age than the universities may be able to provide.
- The role of Kaupapa Māori (KM) research and its ability to engage communities and have real time benefits needs to be acknowledged and emphasised. KM research methodologies are grounded in MM. With KM research, as the research is conducted the benefits flow immediately into the community, either at iwi or hapū or whānau levels. Impacts for the community is a big part of KM research. Dr Jenny Lee-Morgan speaks of her pūrākau methodologies as being her koha back to communities.
- "Rationalising" (7.b.) usually means 'reducing' something. Currently, compared to other OECD countries, Aotearoa is investing less into science and research. Further reduction of investment would be a disaster. We are already lagging behind other countries.
- The funding envelope available for research is very small, and some economic commentators have posited that New Zealand's productivity will fall further behind if we don't change our mindset from passive investment into residential housing into things like research and innovation.

*7.j. How should the balance of research investment extend across from the humanities, social sciences, health sciences life sciences, physical sciences and earth sciences?*

- A specific response to this question is quite important, considering Unitec's unique perspective. The question is a little bit leading. It seems to be asking 'are all of these disciplines equally important or are some more important than others'?
- What is the intention behind this question? It is hoped that it is not because budgets are going to be cut and invested in places that are not going to be fair to all researchers.
- If New Zealand wants to improve research quality in general, we need to be encouraging and facilitating interdisciplinary research. Many researchers are currently working in silos. We are already in a geographical silo, as we're far away from other parts of the world. In Europe, lots of countries are working together. The interdisciplinary approach is very important. The SSAG could look at models like the Scandinavian countries. New Zealand is a remote with a small population. Scandinavian countries are similarly challenged, but they are collaborating, especially in areas around technology. This is enabling them to attract top talent from around the world.

**Action:** Hadley Brown/Brenda Massey to circulate the consultation questions to the committee in the coming days and, subject to committee members' availability, convene a meeting to gather feedback on the submission questions.

**Action:** Hadley Brown/Brenda Massey to collate and disseminate the URC's feedback on the SSAG consultation to Jamie Smiler, National Research Director, Te Pūkenga before COB tomorrow.

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## SECTION 5 - NGĀ TUKUNGA | ITEMS TO RECEIVE

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### **Section 5.1                      2023 ECR Contestable Funding Final Report**

The committee received a final report from Dr Sarah Wells, a recipient of 2023 Early Career Researcher (ECR) Funding.

The committee commented that the report was very comprehensive. It is clear that work is still in progress, but this was well explained and revised milestone dates had been clearly articulated. It was noted from the final financial reconciliation that there was a slight overspend, however the committee was pleased to see that the overspend had the prior approval of Tūāpapa Rangahau.

Some of the milestones have been pushed into 2026, and the committee queried whether this was acceptable. Brenda Massey advised that, particularly for projects that involve seasonal fieldwork that can be delayed by permitting, weather and pandemics, projects do not have to be completed in the year for which funding was allocated. However, allocated funds don't roll over from the year they were granted into the next or subsequent years. Tūāpapa Rangahau is very clear about this to applicants. In this case Sarah was strategic in terms of making sure she spent the grant during the period it was available, in some cases buying materials in advance when she won't be using them until later.

**Action:** Brenda Massey to draft a letter thanking and acknowledging Sarah for her report and encapsulating the committee's feedback as above.

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## SECTION 6 - KUPU WHAKAMUTUNGA | CLOSING

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### **Section 6.1                      Ētahi Kaupapa Anō | Any Other Business**

N/A

### **Section 6.2                      Komiti Self-Assessment**

An opportunity was given for the committee to reflect on their self-assessment provocations. The committee was reminded that feedback on any aspect of the committee's operation can be emailed to the Chair or the Secretary at any time (in confidence if requested).

The committee congratulated Hadley on having successfully chaired his first meeting. It was an enjoyable and lively meeting. Hadley responded that he enjoyed the kōrero, and acknowledged that he has big shoes to fill. While the committee misses Marcus, it is good to know that he is still very

much the Director of Research and Enterprise. He has had to pull away from some of his duties due to his reduced FTE, and the chairing of this meeting is one of those duties.

Hadley thanked the Committee Secretary for her support, and the committee for the collegiality that was shown today.

### **Section 6.3**      **Karakia Whakamutunga | Closing Karakia**

<b>MEETING CLOSED:</b> 1430 h
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#### **SUMMARY OF ACTIONS**

<b>Agenda Item(s)</b>	<b>Action</b>	<b>Responsible</b>	<b>Outcome</b>
4.1	Summarise the committee's discussion on the difficulties Unitec's IT policies and procedures are posing to teaching and research endeavours. Circulate the discussion document to the committee, requesting any additional input, particularly in the form of specific examples.  Use the committee's feedback to inform a submission to IT and Academic Committee.	Brenda Massey / All  Leon Tan	
4.2	Provide the committee's feedback on the new Emerging Researcher Start Up Fund to Marcus Williams.	Brenda Massey	
4.3	Circulate the UAG consultation questions to the committee in the coming days and, subject to committee members' availability, convene a meeting to gather feedback on the submission questions.  Collate and disseminate the URC's feedback on the SSAG consultation to Jamie Smiler, National Research Director, Te Pūkenga, before COB Fri, 10 May.	Hadley Brown / Brenda Massey  Brenda Massey / Hadley Brown	
5.1	Draft a letter for Marcus Williams to send to Dr Sarah Wells thanking her for her ECR final report and encapsulating the committee's feedback on it.	Brenda Massey	

### MATTERS ARISING

Agenda Item(s)	Action	Responsible	Outcome
4.1	<p>Summarise the committee's discussion on the difficulties Unitec's IT policies and procedures are posing to teaching and research endeavours. Circulate the discussion document to the committee, requesting any additional input, particularly in the form of specific examples.</p> <p>Use the committee's feedback to inform a submission to IT and Academic Committee.</p>	<p>Brenda Massey/All</p> <p>Leon Tan</p>	<p>Complete</p> <p>In progress</p>
4.2	Provide the committee's feedback on the new Emerging Researcher Start Up Fund to Marcus Williams.	Brenda Massey	Complete. The Research Partners will discuss the committee's feedback at their next catch-up and get back to the committee.
4.3	<p>Circulate the UAG consultation questions to the committee and, subject to committee members' availability, convene a meeting to gather feedback on the submission questions.</p> <p>Collate and disseminate the URC's feedback on the SSAG consultation to Jamie Smiler, National Research Director, Te Pūkenga, before COB Fri, 10 May.</p>	<p>Hadley Brown/ Brenda Massey</p> <p>Brenda Massey/ Hadley Brown</p>	<p>Complete. An invitation was forwarded to the committee to a workshop for Unitec staff to take a deep dive into the UAG's TOR and to contribute to a Unitec submission on the consultation.</p> <p>Complete. Jamie Smiler responded "He mihi atu ki a kōrua me te kōmiti. Thanks to you and the committee for providing input into the Te Pūkenga response. This response is a part of phase 1 of the advisory group's response with more feedback expected and then later there will be consultation on any significant changes as a result of the advice provided".</p>
5.1	Draft a letter for Marcus Williams to send to Dr Sarah Wells thanking her for her ECR final report and encapsulating the committee's feedback on it.	Brenda Massey	Complete

## Unitec New Zealand Limited

Meeting of Te Komiti Rangahau o Unitec | Unitec Research Committee

Date of Meeting: 13 June 2024

<b>Title</b>	Research Centre Update – Cybersecurity Research Centre
<b>Provided by:</b>	A/P Marcus Williams – Director Research and Enterprise
<b>For:</b>	<b>APPROVAL</b>

### Recommendation

That the operation of the Cybersecurity Research Centre be paused for one year in the wake of the recent resignation of the centre's director, Denis Lavrov.

### Purpose

Denis Lavrov is leaving Unitec and there is no-one able to take over the directorship of the Cybersecurity Research Centre at this juncture. It is therefore recommended that the operation of the centre be paused for one year to ascertain if there is a change.

### Information/Background

Originally known as the Centre for Computational Intelligence and Cybersecurity, Unitec's Cybersecurity Research Centre was established in 2012. Since then, it has been engaged in several major cybersecurity research projects and has produced a considerable IP portfolio, gaining valuable expertise in commercialising cutting-edge cybersecurity technologies along the way.

### Next Steps

The ongoing viability of the Cybersecurity Research Centre will be considered by this committee in June 2025.



## Unitec New Zealand Limited

Meeting of Te Komiti Rangahau o Unitec | Unitec Research Committee

Date of Meeting: 13 June 2024

<b>Title</b>	Review of the Unitec Research Strategy Action Plan
<b>Provided by:</b>	Hadley Brown, Chair URC
<b>For:</b>	<b>DISCUSSION</b>

### Recommendation

That the committee reviews the Unitec Research Strategy Action Plan.

### Purpose

The Unitec Research Strategy Action Plan is due to be reviewed to ensure it has been appropriately responding to the Unitec Research Strategy 2020 - 2024.

### Information/Background

It was agreed in the consultation and development of the 2020 - 2024 Unitec Research Strategy that an Action Plan would be developed subsequently.

It is the responsibility of Tūāpapa Rangahau to implement the Action Plan. The implementation of actions and outcomes of these actions is reported in the Annual Unitec Research Report. The KPIs are reported in the Unitec BI Dashboard and indicate to the committee the effectiveness of the Action Plan.

The committee's Work Plan requires that the Action Plan be reviewed annually.

### Attachments

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Unitec Research Strategy - Action Plan

Unitec Research Strategy 2020-2024

## Unitec Research Strategy – Action Plan

Priority One	Goal one	KPI	Action Summary	Actions
<b>Research that is aligned with Te Tiriti o Waitangi</b> Unitec will ensure that its support for research, governance and processes is aligned with Tiriti o Waitangi. In this way, Unitec will exemplify leadership in Māori research in the NZIST sector and in Aotearoa. The principle of rangatiratanga expressed through our partnership document, Te Noho Kotahitanga, will apply to research at Unitec: that Māori will have authority over and responsibility for all research related to Māori dimensions of knowledge. Vision Mātauranga will be integrated into all research processes and researchers will be supported to understand and fulfil these requirements. We will resource and grow the numbers and capability of Māori researchers, including Māori supervisors of our postgraduate programmes. We will actively seek and maintain partnerships with iwi, hapū, Māori businesses, institutions and peak Māori bodies. We will evolve our research office appropriately to ensure Māori research governance and rangatiratanga.	Unitec has strong Māori research leadership, capability, excellence, partnerships, processes and governance.	<b>Rangahau Māori productivity;</b> QA outputs that demonstrate excellence in Vision Mātauranga, QA outputs by Maori staff, funded projects with named Māori researchers and accredited Vision Mātauranga and Kaupapa Māori professional development	<b>Review research policy, guidelines and processes to ensure rangatiratanga</b>	<ul style="list-style-type: none"> <li>- Consult with Māori researchers on how we do the management of contracts and the appropriate appointment of Māori researchers for these projects.</li> <li>- At the appropriate interval; review policy to ensure rangatiratanga</li> <li>- Review funding frameworks to update Vision Mātauranga sections</li> </ul>
			<b>Review all funding frameworks, guidelines and processes to incorporate Vision Mātauranga</b>	<ul style="list-style-type: none"> <li>- review guidelines and processes as above</li> <li>- ensure appropriate Māori representation on research funding application assessment panels</li> </ul>
			<b>Increase Māori postgraduate supervisors and student scholarships</b>	<ul style="list-style-type: none"> <li>- appoint an expert Kaupapa Māori Supervisor/Advisor</li> <li>- work with the postgraduate committee to increase Māori scholarships</li> <li>- develop strong Mahi Kotahitanga between programme and Māori scholarship committees</li> <li>- facilitate writing retreats for Māori postgraduate students</li> </ul>
			<b>Provide professional development by Māori for Māori researchers and postgraduate supervisors</b>	<ul style="list-style-type: none"> <li>- support and provide administrative backup to the Kaupapa Māori Supervisor/Advisor to provide professional development for Māori researchers &amp; supervisors</li> <li>- provide administrative support for the Māori and Pacific Postgraduate Support Roopu</li> </ul>
			<b>Support and resource Ngā Wai a te Tūi appropriately</b>	<ul style="list-style-type: none"> <li>- provide contract oversight, compliance support and administrative expertise</li> </ul>
			<b>Review capability and plan for institutional research co-governance and leadership</b>	<ul style="list-style-type: none"> <li>- consult with Ngā Wai a te Tūi on a research governance model in line with Te Tiriti</li> <li>- consider research office structure in line with above</li> <li>- consult with Unitec Research Committee on this</li> <li>- submit a relevant proposal to ELT</li> </ul>

			<b>Tell stories of Māori research projects, outcomes and success</b>	<ul style="list-style-type: none"><li>- advocate to Unitec Corporate Comms for Māori research stories</li><li>- Publish Māori research in ePress</li><li>- include Māori research stories in the Unitec Research Blog</li></ul>
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Priority Two	Goal Two	KPI	Action Summary	Actions
<b>A flourishing, collaborative research culture</b> Unitec will grow a productive, diverse, student integrated, engaged and sustainable research workforce with the necessary resourcing and infrastructure. There will be an inclusive pipeline of support for developing the capability of our people and empowering them toward transformative outcomes for our communities; from the beginnings of their research independence through to leadership at the highest level, as expressed in Unitec's Research Competencies. Grounded in Te Tiriti and Te Noho Kotahitanga partnership, this will be inclusive and provide opportunity for the diverse cultures and individuals who make up our institution and the varied nature of that activity we call research and its related enterprises. This pipeline will be aligned with and actively support the initiatives at the heart of Te Manaakitia te Rito, Unitec's Renewal Strategy.	The diverse people of Unitec have fit-for-purpose capability development and support toward sustainable, collaborative research productivity and excellence	QA Outputs, Student Integrated Research, Research Engaged Programmes	<b>Provide high quality, diverse, multi-level research professional development</b>	<ul style="list-style-type: none"> <li>- provide a range of research blended workshops</li> <li>- provide research master classes</li> <li>- run writing retreats</li> <li>- offer developmental research for emerging researchers</li> </ul>
			<b>Implement formalised research planning at individual and School level</b>	<ul style="list-style-type: none"> <li>- provide continuously improved templates for Individual Plans</li> <li>- support and oversee compliance</li> <li>- implement a School Plan review and improvement process</li> </ul>
			<b>Support degree teachers to be research engaged</b>	<ul style="list-style-type: none"> <li>- monitor Research Traffic Light to identify staff most needing support</li> <li>- Prioritise Research Dissemination funding to improve Traffic Light</li> <li>- run writing retreats</li> <li>- offer developmental research funding for emerging researchers</li> <li>- run an externally engaged research symposium</li> </ul>
			<b>Increase research excellence and productivity</b>	<ul style="list-style-type: none"> <li>- monitor ROMS to identify staff most needing support</li> <li>- prioritise Research Dissemination funding to build strong portfolios</li> <li>- run an internal review and publicity campaign in preparation for PBRF</li> <li>- provide Research Partners</li> <li>- provide support for the professoriate</li> </ul>
			<b>Develop Research Groups in every School offering degree programmes</b>	<ul style="list-style-type: none"> <li>- provide Research Partner support to develop Research Groups in schools</li> <li>- structure the Unitec symposium around Groups</li> </ul>
			<b>Develop Research Centres, facilitate concomitant business planning and annual evaluations</b>	<ul style="list-style-type: none"> <li>- provide Research Partner support to Research Centres</li> <li>- provide expert administrative, contractual and IP support</li> <li>- implement annual reviews and tri-annual re-accreditation as per the procedure</li> <li>- publicise to groups the procedure to become a research centre</li> </ul>

			<b>Support Strategic Research Foci</b> <ul style="list-style-type: none"> <li>- provide research assistants and associates</li> <li>- provide research materials and equipment</li> <li>- help resolve accommodation, facility and branding needs</li> <li>- provide support with publicity</li> </ul>
			<b>Support emerging and early career researchers; grow leaders</b> <ul style="list-style-type: none"> <li>- provide expert administrative, contractual and IP support to ECRs</li> <li>- provide ECR research support funding (Parental Leave support etc)</li> <li>- provide ECR contestable research funding</li> <li>- provide ECR Research Fellowships</li> <li>- provide support to PIs of ECR funded projects toward external funding</li> <li>- support ECRs with external funding grant development and writing</li> <li>- support the ECR Forum</li> <li>- fund ECR Forum Chair to attend Royal Society meetings</li> <li>- provide Emerging Researcher Start-up Funding</li> <li>- provide comprehensive PD opportunities for emerging researchers</li> </ul>
			<b>Collate, authenticate, sustainably disseminate and publicise research</b> <ul style="list-style-type: none"> <li>- publish double blind peer reviewed papers with ePress</li> <li>- publish three journals at ePress; Whanake, Perspectives in Biodiversity and Asylum</li> <li>- publish Unitec Research Symposium papers</li> <li>- provide advice to manage predatory and vanity publishing risks</li> <li>- oversee Research Output Management System and verify all research outputs</li> <li>- report research outputs in the Annual Research Report</li> <li>- monitor research at programme level for Research Traffic Light</li> <li>- liaise with Corporate Comms to publicise Unitec research</li> </ul>

			<p><b>Support and resource postgraduate student research</b></p> <ul style="list-style-type: none"> <li>- lead and administer the Postgraduate Research and Scholarship Committee</li> <li>- administer all scholarships</li> <li>- review the effectiveness of scholarships</li> <li>- review the accessibility of scholarship processes for students</li> <li>- implement improvements which emerge from the reviews</li> <li>- promote all scholarships</li> <li>- offer specialist scholarships to Māori and Pacific students</li> <li>- offer Bold Innovator Scholarship and mentor the recipient</li> <li>- ensure high quality professional development for supervisors</li> <li>- facilitate writing retreats for Pacific postgraduate students</li> <li>- offer and maintain high quality, specialist postgraduate study space</li> <li>- provide specialist research software for postgraduate students and related PD</li> </ul>
			<p><b>Increase student involvement in research</b></p> <ul style="list-style-type: none"> <li>- offer contestable Industry Scholarships with strong partnerships criteria</li> <li>- develop criteria for 5th research goal - Student Integrated Research</li> <li>- ratify a 5th research goal at Academic Committee for Student Integrated Research</li> <li>- modify ROMS to allow input of Student Integrated Research data</li> <li>- monitor and report productivity of this goal in Annual Research Report</li> <li>- offer expert administrative support for Research Studentships</li> <li>- ensure Student Integrated Research is a criteria for Research with Impact Award</li> <li>- ensure Student Integrated Research is a criteria for internal contestable funding</li> </ul>

			<b>Foster research into Wairaka, our place; the natural environment, history and wairua</b>	<ul style="list-style-type: none"> <li>- liaise with roopu Kaitiaki, Nga Wai a te Tui, Sustainability Manager &amp; Pae Arihi</li> <li>- pilot a 2021 contestable fund; Wairaka - natural environment, history and culture</li> <li>- create an ongoing fund; Wairaka - natural environment, history and culture</li> </ul>
			<b>Embed sustainability into all funding guidelines</b>	<ul style="list-style-type: none"> <li>- review all internal funding documents to ensure sustainability questions are asked</li> </ul>

Priority Three	Goal Three	KPI	Action Summary	Actions
<b>Partnered research and innovation</b> Research at Unitec will concentrate on opportunities and problems identified by Māori, industry and community partners. Strong, enduring partnerships will be facilitated and valued, with investment in capacity building, innovation and leadership in this space. The reciprocity created by these partnerships will enhance opportunity for student work-integrated learning.	Research that is industry/community partnered and promotes innovation	Industry/Community Funded Research, External Research Income	<b>Weave, ignite and nurture long-term partnerships across community, academia and industry</b>	<ul style="list-style-type: none"> <li>- seed fund industry partnered conferences and seminars at Unitec</li> <li>- encourage strong industry partnerships in contestable funding frameworks</li> <li>- provide expert industry partnership support (Research Partner Enterprise)</li> <li>- provide expert legal, contractual and administrative support</li> </ul>
			<b>Facilitate subsidised research consultancy</b>	<ul style="list-style-type: none"> <li>- fund and administrate the research voucher scheme</li> <li>- assist in growing resulting partnerships</li> </ul>
			<b>Implement industry/community-partnered postgraduate research scholarships</b>	<ul style="list-style-type: none"> <li>- create guidelines for Industry Scholarships</li> <li>- fund and administrate Industry Scholarships</li> <li>- assist in growing resulting partnerships</li> </ul>
			<b>Provide industry partnering, IP, innovation and commercialisation advice and practical support</b>	<ul style="list-style-type: none"> <li>- provide expert commercialisation support (Research Partner Enterprise)</li> <li>- provide expert legal, contractual and administrative support</li> <li>- ensure contracts and agreements protect IP appropriately as per policy</li> </ul>
			<b>Develop reputation through the establishment of Research Centres with strong partnerships</b>	<ul style="list-style-type: none"> <li>- provide funding to Research Centres which are Strategic Foci</li> <li>- work with the Unitec Communications Team to publicise achievements</li> <li>- provide support to develop funding applications</li> <li>- provide support to maximise collaboration between Research Centres</li> </ul>
			<b>Identify areas of future importance and opportunity; Research Sandpits</b>	<ul style="list-style-type: none"> <li>- ensure school plans have Research Groups</li> <li>- keep schools aware of the Research Sandpits and other areas of priority in Auckland, New Zealand and the Pacific</li> </ul>



# UNITEC

## Research Strategy 2020-2024

*NB – in keeping with Unitec process on strategies, a separate action plan will outline how we implement the actions, how we show the progress of that implementation and what indicators we use to measure success. This will follow approval of this draft research strategy.*

### Vision

To undertake research of excellence that aligns to Te Tiriti o Waitangi and has transformative outcomes for the communities we serve.

### Mission

We undertake impactful research in order to provide significant economic, social, cultural and environmental benefits to Māori, New Zealand communities, industries and the environment. We do this by igniting the power of our founding document, Te Tiriti o Waitangi, partnering with tangata whenua, our communities and industry. This partnering is at the heart of our value proposition and is fundamental to research from the beginning of the research process, through to the dissemination of the outcomes. Unitec's strengths lie in its kaupapa Māori capability, its applied and practical focus, its mixture of programmes involving research and enterprise at postgraduate and undergraduate levels, and its strong relationships with community and industry. We will develop these strengths through focused, sustainable research and enterprise activity that is Treaty aligned, integrated with teaching and learning and undertaken within networks of stakeholders and partners, enabling effective knowledge transfer. In these networks we aim to contribute to better knowledge bases for decision making, improved wellbeing, socioeconomic resilience, cultural diversity, flourishing communities and improved productivity, policy, technologies, products or processes.

### Background

During the 2015 – 2019 Research Strategy period, three Strategic Research Foci were developed: the Cybersecurity Focus, the Applied Molecular Solutions Focus and the Kaupapa Māori Focus. Through mechanisms such as the Research Voucher Scheme, the strategy successfully drove institutional change toward higher levels of industry-partnered research resulting in many funded projects. Coupled with an emphasis on building staff capability and research leadership, Unitec has experienced growth in its research, with externally funded research increasing by 450%, increased external partnering with 184% more industry-funded projects, improvement in excellence with a 97% success rate through the PBRF Quality Evaluation and increased NZQA compliance with 91% of degree programmes research compliant. The Kaupapa Māori Focus led to the appointment of two highly respected Māori professors, and the establishment of Ngā Wai a te Tūi Māori and Indigenous Research Centre, which is now leading numerous externally funded projects, including an Endeavour Fund Research Programme and a National Science Challenge project.

This next strategic period will see Unitec continue investing in our Strategic Research Foci with an emphasis on rangatiratanga, embedding a flourishing, diverse and sustainable research culture and weaving strong, enduring industry/community partnerships.

## Te Tiriti o Waitangi and Te Noho Kotahitanga

Unitec will uphold Te Tiriti o Waitangi, the founding document of our nation and its principles, through our research. Our commitment to Te Noho Kotahitanga, which express Unitec's Treaty partnership and its principles, underpins the values and kaupapa of our organisation, including our approach to research.

### Rangatiratanga

### Whakaritenga

### Kaitiakitanga

### Mahi Kotahitanga

### Ngākau Māhaki

### Authority and Responsibility

### Legitimacy

### Guardianship

### Co-operation

### Respect

 <p><b>RANGATIRATANGA</b> AUTHORITY AND RESPONSIBILITY</p>	 <p><b>WHAKARITENGA</b> LEGITIMACY</p>	 <p><b>KAITIAKITANGA</b> GUARDIANSHIP</p>	 <p><b>MAHI KOTAHITANGA</b> CO-OPERATION</p>	 <p><b>NGĀKAU MĀHAKI</b> RESPECT</p>
<p><i>E whakarite ana te Whare Wānanga o Wairaka ki te pūtake ake o te rangatiratanga o te Māori me ngā mātauranga Māori.</i></p> <p>Unitec accepts the principle that Māori have authority over and responsibility for all teaching and learning relating to the Māori dimensions of knowledge.</p>	<p><i>E whakarite ana te Whare Wānanga o Wairaka ki te mana o tena, o tena, ki te noho kotahi, ki te puaki i tona ake reo, ki te whakamahi i ngā rawa mo ngā iwi katoa.</i></p> <p>Unitec believes that each partner has a legitimate right to be here, to speak freely in either language, and to put its resources to use for the benefit of all.</p>	<p><i>E whakarite ana te Whare Wānanga o Wairaka ki te kaitiakitanga o ngā taonga mātauranga.</i></p> <p>Unitec accepts responsibility as a critical guardian of knowledge.</p>	<p><i>E whakarite ana te Whare Wānanga o Wairaka kia tau he ngākau māhaki i roto i ngā mahi katoa.</i></p> <p>Unitec affirms that a spirit of generosity and co-operation will guide all its actions.</p>	<p><i>E whakarite ana te Whare Wānanga o Wairaka ki te whakanui i ngā taonga tuku iho o ngā ao e rua, a hiko ki mua. Ko te Māori me te Pākehā e mahi tahi ana mo Te Whare Wānanga o Wairaka.</i></p> <p>Unitec values each partner's heritage and customs, current needs and future aspirations. Māori and Pākehā working together within Unitec.</p>

## Vision Mātauranga

Unitec acknowledges and actively supports staff in engaging with the Vision Mātauranga policy as outlined by the Ministry of Business, Innovation and Employment. The policy aims to unlock the innovation potential of Māori knowledge, resources and people to assist New Zealanders to create a better future.

## Code of Practice and Research Ethics

Research at Unitec will function within Ngā Tikanga Whakahaere (Unitec's Code of Conduct) and the research-specific Code of Professional Standards and Ethics developed by the Royal Society Te Apārangi. All human research is conducted with guidance from the Unitec Research Ethics Committee, an accredited research ethics committee, and animal research is overseen by an approved committee.

## Priorities

The Unitec Research Strategy 2020 – 2024 has three key priorities which underpin our goals, our actions and the way we measure success:

<b>Priority One</b>	<b>Research that is aligned with Te Tiriti o Waitangi</b>
<b>Priority Two</b>	<b>A flourishing, collaborative research culture</b>
<b>Priority Three</b>	<b>Partnered research and innovation</b>

### **Priority One – Research that is aligned with Te Tiriti o Waitangi**

Unitec will ensure that its support for research, governance and processes is aligned with Tiriti o Waitangi. In this way, Unitec will exemplify leadership in Māori research in the NZIST sector and in Aotearoa. The principle of rangatiratanga expressed through our partnership document, Te Noho Kotahitanga, will apply to research at Unitec: that Māori will have authority over and responsibility for all research related to Māori dimensions of knowledge. Vision Mātauranga will be integrated into all research processes and researchers will be supported to understand and fulfil these requirements. We will resource and grow the numbers and capability of Māori researchers, including Māori supervisors of our postgraduate programmes. We will actively seek and maintain partnerships with iwi, hapū, Māori businesses, institutions and peak Māori bodies. We will evolve our research office appropriately to ensure Māori research governance and rangatiratanga.

### **GOAL ONE:**

Unitec has strong Māori research leadership, capability, excellence, partnerships, processes and governance.

#### *Actions:*

- Review research policy, guidelines and processes to ensure rangatiratanga
- Review all funding frameworks, guidelines and processes to incorporate Vision Mātauranga
- Increase Māori postgraduate supervisors and student scholarships
- Provide professional development by Māori for Māori researchers and postgraduate supervisors
- Support and resource Ngā Wai a te Tūi appropriately
- Review capability and plan for institutional research co-governance and leadership
- Tell stories of Māori research projects, outcomes and success

### **Priority Two - A flourishing, collaborative research culture**

Unitec will grow a productive, diverse, student integrated, engaged and sustainable research workforce with the necessary resourcing and infrastructure. There will be an inclusive pipeline of support for developing the capability of our people and empowering them toward transformative outcomes for our communities; from the beginnings of their research independence through to leadership at the highest level, as expressed in Unitec's Research Competencies. Grounded in Te Tiriti and Te Noho Kotahitanga partnership, this will be inclusive and provide opportunity for the diverse cultures and individuals who make up our institution and the varied nature of that activity we call research and its related enterprises. This pipeline will be aligned with and actively support the initiatives at the heart of Te Manaakitia te Rito, Unitec's Renewal Strategy.

**GOAL TWO:**

The diverse people of Unitec have fit-for-purpose capability development and support toward sustainable, collaborative research productivity and excellence.

**Actions:**

- Provide high quality, diverse, multi-level research professional development
- Implement formalised research planning at individual and School level
- Support degree teachers to be research engaged
- Increase research excellence and productivity
- Develop Research Groups in every School offering degree programmes
- Develop Research Centres, facilitate concomitant business planning and annual evaluations
- Support Strategic Research Foci
- Support emerging and early career researchers; grow leaders
- Collate, authenticate, sustainably disseminate and publicise research
- Support and resource postgraduate student research
- Increase student involvement in research
- Foster research into Wairaka, our place; the natural environment, history and wairua
- Embed sustainability into all funding guidelines

**Priority Three - Partnered research and innovation**

Research at Unitec will concentrate on opportunities and problems identified by Māori, industry and community partners. Strong, enduring partnerships will be facilitated and valued, with investment in capacity building, innovation and leadership in this space. The reciprocity created by these partnerships will enhance opportunity for student work-integrated learning.

**GOAL THREE:**

Research that is industry/community partnered and promotes innovation.

**Actions:**

- Weave, ignite and nurture long-term partnerships across community, academia and industry
- Facilitate subsidised research consultancy
- Implement industry/community-partnered postgraduate research scholarships
- Provide industry partnering, IP, innovation and commercialisation advice and practical support
- Develop reputation through the establishment of Research Centres with strong partnerships
- Identify areas of future importance and opportunity; Research Sandpits

**RESEARCH SANDPITS HAVE:**

- the values of Te Noho Kotahitanga
- high societal need
- student-involved research and learning potential
- existing external partnerships
- cross-school transdisciplinary opportunity

**POTENTIAL FUTURE DIRECTIONS  
(MANAAKITIA TE RITO)**

- Business, finance and professional services
- Maori and indigenous research
- Construction and infrastructure
- Health and wellbeing
- Transport and logistics
- Education and training
- Environmental services
- Creative industries and arts
- Computing and services

## Glossary

Ngā Tikanga Whakahaere – Unitec’s Code of Conduct

NZIST – the New Zealand Institute of Skills and Technology incorporating 16 Institutes of Technologies and Polytechnics

Research Centres – Formally structured research institutes governed by the Unitec Research Committee

Research Competencies – Detailed description of what it means to be research competent at Unitec

Research Groups – Informal groups of researchers around a theme, identified in School Research Plan

Research Sandpits - areas of future research importance and opportunity

Strategic Research Foci – Research Centres which receive seed funding from Unitec

Te Manaakitia te Rito – Unitec’s Renewal Strategy 2019 – 2022

Te Noho Kotahitanga – Unitec’s Partnership agreement under Te Tiriti and our values

Te Tiriti o Waitangi – the founding document of Aotearoa, New Zealand

## Unitec New Zealand Limited

Meeting of Te Komiti Rangahau o Unitec | Unitec Research Committee

Date of Meeting: 13 June 2024

<b>Title</b>	Sector -wide Research Awards
<b>Provided by:</b>	A/P Marcus Williams, Director Research & Enterprise
<b>For:</b>	<b>FEEDBACK</b>

### Recommendation

That the Committee discusses the idea of establishing a sector-wide Research Awards initiative.

### Purpose

The purpose of this paper is to seek, at the request of Jamie Smiler, National Research Director, the committee's thoughts on the possible establishment of a sector-wide Research Awards initiative.

### Key Points

- Jamie Smiler, National Research Director, wishes the committee to discuss the possible establishment of a sector-wide Research Excellence Awards initiative.
- Gus Gilmour, Tumuaki | Chief Executive, has expressed support for the idea, with the caveat that it should be championed by our sector as a whole (i.e., the research communities and committees within the business divisions of Te Pūkenga), not as a directive of the Executive Leadership Team.
- Near the end of each year, there is a call for nominations for the Unitec Excellence Awards. There is an 'Excellence in Early Career Research' category and an 'Excellence in Research' category. No changes are being proposed to be made to these awards or the two research categories at this juncture.
- Sector-wide Research Awards could focus on emerging researchers, early career researchers and/or whānau/iwi/hapū, community and/or industry partnerships.
- It will be important that the awards reflect what our sector values as a collective. This may not necessarily be traditional measures of excellence which may benefit divisions which have a more mature research culture and more resourcing. Rather they could be awards which incorporate a broader spectrum of value.

### A Few Provocations

- Does the committee support the idea of a sector-wide Research Awards initiative in principle?

- What should be the purpose of the awards?
- Should the awards be pitched at a particular demographic of researcher? E.g., emerging, early career, Māori, Pacific etc.
- How should the awards be administered and promoted? Could the tasks associated with their running be shared on an annual rolling basis amongst the business divisions? If so, are all of the business divisions resourced to undertake this task?
- What should be the timing of the awards, from nomination to award?
- Who should review the nominations and be responsible for selecting winners?

## **Next Steps**

The committee's feedback will be shared with Jamie Smiler, National Research Director.

## **Contributors**

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- Jamie Smiler, National Research Director
- Brenda Massey, Acting URC Secretary

## Unitec New Zealand Limited

### Meeting of Te Komiti Rangahau o Unitec | Unitec Research Committee

Date of Meeting: 13 June 2024

<b>Title</b>	Science System Advisory Group and University Advisory Group Consultation Update
<b>Provided by:</b>	Hadley Brown, Chair
<b>For:</b>	<b>INFORMATION</b>

### Recommendation

That the committee receives an update on the Science System Advisory Group (SSAG) and University Advisory Group (UAG) consultations.

### Purpose

The purpose of this paper is to update the committee on the SSAG and UAG consultations.

### Information/Background

A [SSAG](#) has been established to provide advice on how to improve the effectiveness and impact of the science sector in New Zealand. The Group will deliver two reports on the system, with the first due end of June, and the second end of October. The second report will build on the first part's advice and provide final recommendations on longer-term changes.

Separately, a [UAG](#) has been established to investigate issues and aspirations of the university sector. The UAG will consider the effectiveness of the current university system in supporting excellence in teaching and research. This work also includes looking at the PBRF, ways to best achieve equity for all learners, including Māori, Pacific, and disadvantaged learners, and the role of international education. It will consider policy settings including funding mechanisms, incentives, and allocation strategies for research and teaching (in particular the PBRF), with a focus on the university sector but recognising the relevance to the wider higher education sector. The Group will deliver two reports, with the first due 30 August 2024, and the second February 2025.

The SSAG will proceed in several phases with submissions sought during each phase. Phase 1 sought feedback on high-level sectoral questions that consider the role of science and innovation in New Zealand to inform the interim report. Phase 2 will focus on operational details (e.g., funding tools and mechanisms, workforce, infrastructure etc.) as well as broader aspects of the science and innovation system.

Public submissions for Phase 1 for the SSAG closed on **17 May 2024**. Jamie Smiler, National Director of Research, Te Pūkenga has advised that he will be sharing the submission Te Pūkenga provided directly with our sector's regional leaders, to our research offices and through Ngā Taipitopito for all



kaimahi to access and for regional leaders/research offices to share in the coming days. The feedback the URC provided to Jamie following our 9 May meeting was read and synthesised alongside the other submissions Jamie received from other Te Pūkenga Business Divisions and a previous response Te Pūkenga provided to the consultation process for Te Ara Paerangi.

MBIE has advised that the SSAG has received around 300 submissions from the public consultation and that there was a higher-than-expected interest from the business community. The SSAG has also commissioned reports from various experts and MBIE to inform its thinking for its first report.

The first of several consultation phases for the UAG closed on **31 May 2024**. Phase One consultation covered high-level sectoral questions that consider the role of universities in New Zealand. An opportunity was provided for URC members (and other Unitec staff) to discuss and provide feedback on the consultation at a workshop organised by Prof Martin Carroll on 20 May. The workshop took a deep dive into the UAG's TOR. Subsequent consultation phases will consider quality and excellence in teaching, research and knowledge transfer, efficiency, effectiveness, and adaptability, as well as fiscal and policy considerations.

## Next Steps

Opportunities for the committee to provide feedback on the next phases of consultation for both groups will be provided.

## Contributors

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- Brenda Massey, Senior Grants Advisor, Tūāpapa Rangahau

## Unitec New Zealand Limited

Meeting of Te Komiti Rangahau o Unitec | Unitec Research Committee

Date of Meeting: 13 June 2024

<b>Title</b>	2023 Research Centre Reports
<b>Provided by:</b>	Brenda Massey, Senior Grants Advisor
<b>For:</b>	<b>REVIEW</b>

### Recommendation

That the committee receives annual Research Centre Reports from Ngā Wai a Te Tūī, Māori & Indigenous Research Centre (NWiTT), the Digital Heritage Research Centre (DHRC) and the Applied Molecular Solutions Research Centre (AMS).

### Information/Background

The Research Centre Procedure requires Unitec Research Centres, of which there are now three that are active, to report annually to the URC. Reports will include:

- a) performance against forecast budget and outputs; and
- b) evidence of external funding applications.

### Purpose

Unitec's Research Centre Procedure requires all Unitec Research Centres to report annually to the Committee.

### Attachments

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Annual Research Centre Report – NWaTT

Annual Research Centre Report – DHRC

Annual Research Centre Report – AMS

## 2023 UNITEC RESEARCH CENTRE REPORT

Unitec's [Research Centre Procedure](#) requires Unitec's Research Centres to report annually to the Unitec Research Committee.

<b>Research Centre:</b>	Ngā Wai a Te Tūī (NwaTT) Māori and Indigenous Research Centre
<b>Centre Director:</b>	Assoc. Prof. Hinekura Smith

**Outline any variations to the vision, mission, aims, priorities and/or distinctiveness of the Centre:**

<b>Whakakitenga: Our Vision</b>
He pukenga wai, ka puta he tāngata.  He pukenga rākau, ka puta he kōrero.
<b>Whakatakanga: Our Mission</b>
To lead innovative Kaupapa Māori research that contributes to te puna mātauranga and supports flourishing whānau, hapū, iwi, marae and Māori communities.
<b>Ngā Whāinga: Our Goals</b>
<ol style="list-style-type: none"> <li>1. To sustain sources of mātauranga.</li> <li>2. To activate Kaupapa Māori research with communities.</li> <li>3. To provide rangahau opportunities that enable intergenerational knowledge transmission.</li> <li>4. To grow Kaupapa Māori research confidence, capability and capacity.</li> </ol>

Established in 2019, Ngā Wai a Te Tūī (NwaTT) continues its vision to lead transformative and innovative Māori and Indigenous research that responds to the needs and aspirations of whānau, hapū, marae, iwi and communities with a focus on the intersection of Māori community and the vocational sector. NwaTT engages in multi-disciplinary Kaupapa Māori research with a community and vocational research focus to centre mātauranga Māori (the goals, aspirations and issues from an indigenous lens) using Māori concepts, knowledge, theories and practice to advance and respond to contemporary issues within society.

2023 presented significant challenges to the centre as part of the wider ecosystem of research across Te Pūkenga. Decisions around how research would be positioned across the network were delayed which made it difficult to plan and apply for funding amidst the ongoing uncertainty. As a result, opportunities were missed for funding and also securing experienced Māori to build our capacity. Despite a greatly decreased academic capacity within the centre, NwaTT continued to attract research grants (see below) and has managed to grow its funding base which has enabled an increase in academic and professional FTE.

We were delighted to appoint Tanya White – a long time Unitec kaimahi, PhD candidate and kaitiaki taiao (environmental caretaker) – to the role of Māori postgraduate advisor and lecturer (research).

Tanya brings a wealth of relationships with her and strong commitment to growing kaupapa Māori research. Her role includes developing postgraduate co-supervision relationships; contributing to UREC and PGRSC; contributing to research development and funding proposals.

The current staffing is outlined here:

- Assoc. Prof. Hinekura Smith (Te Rarawa, Nga Puhī) 1FTE senior lecturer, senior researcher, centre director
- Appointment of Tanya White (Ngāti Hine) lecturer, Māori postgraduate advisor.
- Irene Kereama-Royal .6FTE Research partner
- Dr Nalani Wilson-Hokowhitu (Marsden Fast Start) – novated to Victoria University, Wellington March 2024
- Aki Te'evale .6FTE research administrator.
- Kim Penetito Ngāti Haua) .2FTE contractor to TLRI project 2023-25
- Assoc. Prof Jani Wilson .1 project contract
- Assoc. Prof Donna Campbell .1 project contract
- Assoc. Prof. Byron Rangiwai (Tuhoe) .2FTE research contract
- Hadley Brown .2FTE contracts management secondment from Tūāpapa Rangahau.

The Centre is funded by external research projects, and it is through the critical collaboration with external partnerships that NwaTT aims to continue its self-sustainable viability. Recognition is extended to these partnerships and organisations who funded research projects in 2023-4:

- » TLRI (Teaching, Learning and Research Initiative)
- » Ngā Pae o te Māramatanga
- » Ako Aotearoa

A highlight of 2023 was the recognition of several awards to NwaTT kaimahi and taura.

- Two MAI ki Wairaka Masters students were awarded Hine Kahukura New Horizon's Research Awards. Irene Farnham (Social Practice) received a \$10k research award to support her Masters project around Māori women in leadership and Tonina Ngatai received an education award to support her creative practice postgraduate work.



- With the support of NwaTT colleagues and Tūāpapa Rangahau Assoc. Prof Hinekura Smith:
  - Received the 2023 Fulbright NZ Nga Pae o Te Māramatanga Scholars award to support a five-month research and teaching residency in the US. She spent two months at University of Washington, Seattle and three months at University of Hawaii, Oahu.
  - National finalist for Ako Aotearoa Tertiary Teaching Excellence Award.
  - Received the Te Kopunui Māori Research award from Te Aparangi Royal Society for early career excellence in Māori research.
  - Received the Skinner Fund award from Te Aparangi Royal Society to support Māori research.

- Recipient of a Michael King writers residency award for publication.

**Active Nga Wai a Te Tui research projects include:**

1. **MAI ki Wairaka:** The Māori and Indigenous (MAI) postgraduate student programme is a nationally organised network comprising of key sites throughout Aotearoa New Zealand that supports student success. MAI ki Wairaka was established in 2020 – the first ITP situated MAI site in the Te Kupenga o MAI national network – and is funded by Ngā Pae o te Māramatanga (NPM), Aotearoa New Zealand's Māori Centre of Research Excellence, MAI ki Wairaka works closely with Unitec's MAIA whānau to support MAI postgraduate students through Tuhi MAI (Friday academic writing sessions), guest speakers, workshops and writing retreats, attendance at the annual MAI conference. The programme promotes capability building outcomes and focusses on the specific student support requirements and models to accelerate and foster the success of MAI postgraduate students.

**Academic lead: Tanya White**

**Coordinator:**

**2023 funding: \$5 (reduced from \$12k due uncertainty re: Te Pūkenga)**

2. **Toiora Hauora: Developing Māori arts-based pedagogy for whanau wellbeing:** An inter-institutional scoping research collaboration funded by Nga Pae o te Māramatanga (CORE). Toiora, Hauora is a Kaupapa Māori arts-based collaboration to theorise the pedagogy of Māori creative practices that support flourishing Māori whānau wellbeing. This innovative research centres Māori arts-based practice 'as teacher', bringing together three established Māori arts scholar-practitioners (myself, Dr Donna Campbell and Dr Jani Wilson) to expand the currently under-researched field of Māori pedagogies, and to highlight the critical role of Māori arts practice and pedagogy to grow well and flourishing Māori futures.

**Principle investigator: Dr Hinekura Smith**

**2023 funding: \$60,000**

**Funding agency: Nga Pae o Te Māramatanga (CORE)**

**Completion: June 2024**

3. **Toi ora, Reo ora, Whatuora:** a two-year TLRI funded educational research project across three Māori immersion kura settings in central-West Auckland to address the following research question:

- How does Whatuora, a Kaupapa Māori arts-based pedagogy, support and story the intergenerational revitalisation of Māori language, culture, stories and whānau aspirations, across three Māori medium settings?

This project is a unique intergenerational wānanga arts-based project

**Principle investigator: Dr Hinekura Smith**

**2022 funding: \$224,650 31/3/23 to 31/3/25**

**Funding agency: TLRI Teaching Learning and Research Initiative**

4. **Storylines of Pacific Women:** Two-year Marsden Fast Start project to explore the complex roles that women have played in voyaging, migration, movement, identity, places and displacements, diasporas and connections. The research hopes to restore the legacies of legendary Pacific Island women voyagers and navigators by retracing the voyaging storylines of Pacific women with a commitment to researching the connections between Hina/Hine/Ine/Sima/Sina and Nim'anoa throughout Oceania.

**Project novated to Victoria University Wellington following Dr Wilson-Hokowhitu's appointment as Assoc. Prof.**

5. **AKE – Apple in Kura Evaluation** 6-month qualitative evaluation of a co-funded Apple in Kura technology project run to upskill kaiako Māori in kura kaupapa.

**Principle investigator: Dr Byron Rangiwai (contractor), Tanya White AI.**

**2023 funding: \$50. Completion July 2024**

**Funding agency: AKO Aotearoa**

6. **ITAC International Teaching Artists fund – ITAC 6-7** funding supported an Indigenous women's arts exchange between Aboriginal knowledge holders of possum skin cloaking and Māori cloak weavers all four of which are artists, teachers and researchers who are leading arts communities of practice. Hosting in Auckland and rural state of Victoria shared the fruits of our exchange that explored the practice, pedagogy, and activism of revitalising once endangered identity symbols, as a powerful site of social justice and community transformation.

**Principle investigator: Assoc. Prof Hinekura Smith and AI Kim Penetito**

**2023 Funding: \$15k completion Sept 2024**

**Funding agency: ITAC International**

7. **Vision Mātauranga Capability Fund (VMCF)**

**Co-Principle investigators: Assoc. Prof Hinekura Smith, Assoc. Prof Donna Campbell (Waikato University), Catherine Smith (Otago University), Ranui Ngarimu**

**12-month Funding: \$150k (contracting due Aug 2024 project completion Sept 2025)**

**Funding agency: MBIE**

#### **Contracted time buy-out:**

- Assoc. Prof Hinekura Smith .2FTE associate researcher at Pūrangakura Kaupapa Māori Research Centre. 4-year Marsden funded project Generation Kainga
- Assoc. Prof Hinekura Smith .15FTE Ngā Pae o Te Māramatanga Kahui Arahi (Research leadership team) as MAI network national strategy lead

#### **Summarise any opportunities afforded to students to be involved in the Centre and its activities:**

Tanya White has taken up leadership of MAI ki Wairaka Māori and Indigenous postgraduate and doctoral site as part of the broader MAI network co-funded by Ngā Pae o Te Māramatanga and

NWaTT. This includes Friday writing and wananga time (Tuhi MAI), writing retreats; postgraduate seminars; guest lectures; scholarship opportunities and attendance and presentation of research at the annual MAI postgraduate and doctoral conference.

**Outline any changes to the Centre's internal and external partnerships/collaborations, highlighting any new partnerships/collaborations that have been made:**

The restabilizing of the centre has meant investing time into re-establishing relationships. Although Prof. Terri-Ann Berry has left Unitec NWaTT has three research proposal opportunities to maintain relationships with Prof. Berry and into the RSI sector including a proposal to develop a MBIE Smart Ideas project around using harakeke fibres as geotextiles.

**Please report on the Centre's annual budgeted versus actual income from the year of commencement of the Centre to the year ended 31 December 2023 (expand the table accordingly, or alternatively this information can be appended if you have it in a different format):**

Income Source	Year Ending	Project Budget \$	Actual Income \$
Storylines of Pacific Women	2023	300,000	123,659
Toi ora, Reo ora, Whāturoa	2023	224,650	129,434
Toiora Hauora: Developing Māori arts-based pedagogy for whanau wellbeing	2023	60,000	16,231
Te Kupenga o MAI - Mai Ki Wair	2023	20,000	17,096
Pou Rautaki Kounga MAI	2023	134,947	37,981
Te Kupenga o MAI - Mai Ki Wair	2023	20,000	17,096
MAI Conference	2023	30,000	19,249
Generation Kainga	2023	259,866	58,988
Tuakana Teina Summer Research internships 2023	2023	130,000	125,362
Apple in Kura Evaluation	2023	35,060	7,467
Other projects	2023		8,211
			<b>560,774</b>

**Briefly account for any difference between budgeted and actual income:**

FY23 budgeted income was \$133,218

**If there is anything else you wish to report, please do so here:**

N/A

## 2023 UNITEC RESEARCH CENTRE REPORT

Unitec's [Research Centre Procedure](#) requires Unitec's Research Centres to report annually to the Unitec Research Committee.

<b>Research Centre:</b>	Digital Heritage Research Centre
<b>Centre Director:</b>	A/P Renata Jadresin Milic

### Outline any variations to the vision, mission, aims, priorities and/or distinctiveness of the Centre:

The establishment of the Digital Heritage Research Centre was approved in July 2022. The Centre is still in the development process, and there are no variations to the vision, mission, aims, or priorities to report on at this point.

### Vision Mātauranga aims "to unlock the innovation potential of Māori knowledge, resources and people to assist New Zealanders to create a better future". Provide an overview of how the Centre has responded to this kaupapa:

As we reported last year, our research project proposals developed so far have demonstrated that our diverse team is co-led by a Māori scientist, Prof Regan Potangaroa (Massey University), who directly contributes his tangata whenua knowledge, expertise, and advocacy for preserving Māori architectural heritage.

In applying for funding, we will be guided by a Kāhui Māori who will ensure our projects' aspirations around Vision Mātauranga are realised. If our proposals are successful and we are approved to continue our work, the tools that will be developed will assist with the Raetihi community's aspirations for the future of their town and its heritage. This aspect of the project will involve engagement with Ngāti Uenukumanawawiri of Ngāti Uenuku and Ngāti Rangī hapu. The hapū will be supported to actively co-design the creation of augmented reality heritage stories, allowing them to store their traditional knowledge and utilise and securely share their mātauranga in an online space.

Appropriate management of all mātauranga is an integral component of our work. Agreements will be sought from the outset, ensuring the IP and cultural safety of our Māori knowledge holders is recognised and protected. The team will abide by the Nagoya Protocol (2011) and acknowledge that sharing biological, ecological, and environmental data in support of innovation and generative economic opportunities must address the rights of Indigenous peoples.

Jadresin Milic and Potangaroa (Ngāti Kahungunu ki Wairarapa) work closely together on the co-development of the project proposals. They operate as equal partners under pre-agreed values (including time, space, humour, persistence, generosity, and forgiveness). The whole Research Centre team is committed to honouring and upholding Māori perspectives and knowledge systems with profound reverence for Te Ao Māori, particularly as it relates to heritage and te taiao.

With Maia Ratana initially in 2021 and 2022, and with Regan Potangaroa gradually in 2022 and 2023, we continued to explore/discuss/draft papers and proposals, and find opportunities for Māori postgraduate students to engage with topics such as:

- Mātauranga Māori and digital storytelling;



- Analyse the ways in which digital technologies can be used in the representation and preservation of Māori heritage sites and buildings.

**Summarise any opportunities afforded to students to be involved in the Centre and its activities:**

Students have been actively involved in our work. Students take part in all phases of digital recording, processing, modelling of heritage places; in public presentations and engagement with the community, professionals in the field, and the research team.

In 2023, our MARCP student Hannah Adolf (within the Conservation and Heritage Research Cluster, School of Architecture) was awarded a Unitec industry scholarship to be part of the Digital Heritage Research Centre's most recent ongoing work on the *St David's Memorial Church* on Khyber Pass Road in Auckland. Hanna was directly engaged with both the industry and community, while doing the digital recording of St David's, processing, 3D modelling, visualisation of the developed material, etc. Hanna learned a whole range of digital heritage methodologies, together with traditional historiography methodology, while directly developing the material that the community needs to protect and adaptively reuse the heritage building.

In 2023, our MARCP student Rohan Sadhu (within the Conservation and Heritage Research Cluster, School of Architecture) was awarded the ICOMOS NZ General Assembly Conference Sydney Scholarship; and became the ICOMOS ANZ Emerging Professional member. In 2024, Rohan became a member of the ICOMOS ANZ Legislation and Policy Committee. In 2023 we presented and in 2024, we published together the paper:

- [Rohan Sadhu and Renata Jadresin Milic. Rejuvenating Culture: Enhancing Cultural Heritage at Ramappa Temple. In \*AMPS Proceedings Series 35.2 Prague – Heritages: Past and Present – Built and Social\*, ed. Jitka Cirklová, Czech Technical University & AMPS, Prague, Czech Republic, 2024, 610-620. ISSN 2398-9467](#)

Another example is a joint contribution with the student for the Resilient & Responsible Architecture and Urbanism (RRAU) – 5th Edition in 2023 (our student Xingru Song is the first author):

- [Xingru Song, Paul Baragwanath, Sameh Shamout, Renata Jadresin-Milic. The power of communities as a Means of Preserving Heritage - The case of St. David, Auckland, New Zealand.](#)

We have developed a full academic paper from this presentation, and it is now in preparation for submission to an international journal.

**Outline any changes pertaining to the management and operation of the Centre, including to the Centre's Advisory Board and personnel working in or with the Centre:**

We did not have changes in 2023. The two research assistants who have joined the Digital Heritage Research Center in November 2022, Viola Vadász and Iman Khan, have been involved in the following:

- assisting with all research projects organisation;
- assisting with surveys and focus groups;
- assisting with the evaluation of data;
- assisting with writing funding applications;

- assisting with writing research papers;
- assisting with writing research papers and organizing online talks/lunchtime talk series with Research Aim (Task) leaders for the 2023/2024 MBIE application (weekly online talks for 6 weeks);
- creating a new webpage for the DHRC;
- assisting in expanding our working network, including Heritage NZ and Auckland City Council – Heritage Unit.

However, these two part-time, fixed-terms contracts ended on 13 December 2023. The new part-time, fixed-term contract for one of the research assistants started only on 27 March 2024.

**Outline any changes to the Centre's research streams/themes:**

Not applicable at the moment.

**Outline any changes to the Centre's internal and external partnerships/collaborations, highlighting any new partnerships/collaborations that have been made:**

External and Internal:

In 2022/2023, we expanded our working network, which has been built between Jadresin-Milic and Potangaroa, to include Heritage NZ and Auckland Council – Heritage Unit, which have resulted in two recent events in 2023, which we reported last year, in our 2022 UNITEC RESEARCH CENTRE REPORT.

Since then, our existing industry partnerships with Wood and Partners Consultants developed further significantly. We disseminated the results of the urgent scan and project for the Shot Tower in Mount Eden, in the country (within our professional, industry and academic communities; ANZ) and internationally (*Disegnarecon* journal). We extended work with Sam Smith and Maksym Khovalko (Woods Survey and Data Products team) and recorded together St David's Memorial Church on Khyber Pass, for the community.

Stronger connections have been developed with Human Interface Technology (HIT) Lab NZ at the University of Canterbury and Orbica Ltd (specialist for Digital Twins, Smart City, 3D mapping, analysis and artificial intelligence, and they pioneer novel methodologies in their regular business).

External partnerships have been significantly growing overall. Renata Jadresin Milic has been a very active ICOMOS ANZ – Elected Board Member (2022-2024), and the following ICOMOS ANZ Specialist Committees member: Legislation and Policy Committee; Advocacy & Communications Committee; Education & Professional Development Committee. Active-Participant in the ICOMOS ANZ Charter Practice Notes scoping project 2021. The leading person for New Zealand for the ICOMOS Mentorship Pilot Programme.

In 2023, we had extensive engagement with external partners through focus groups, which included:

- Recruiting participants and organising sessions (preparation and facilitation).
- Conducting 3 focus group interviews with industry, government, community and academia representatives.
- Transcribing 3 focus groups.

- Thematic and discourse analysis of these discussions.

Prior to the focus groups, we conducted the evaluation and analysis of our survey data:

- Qualitative and quantitative analysis of a Qualtrics survey (*Discussing the perception of digitalisation of heritage towards proposing solutions to mitigate heritage loss in New Zealand*).
  - Quantitative: graphs, charts, infographics.
  - Qualitative: Thematic analysis, coding.

All previously mentioned partnerships and collaborations are evidenced already through the early dissemination of our joint work:

Dissemination in academic environment – Papers/Book chapters:

- Renata Jadresin Milic, Iman Khan, Viola Vadász. Transdisciplinary Digital Heritage Research Centre Development: Applied Research towards a More Resilient Environment, *in Integrating Resiliency into Future Sustainable Cities*, Hasim Altan, Sameh Shamout, Matthew Bradbury, Yusef Patel (Ed.). Switzerland: Springer, 2024.
- Rohan Sadhu and Renata Jadresin Milic. Rejuvenating Culture: Enhancing Cultural Heritage at Ramappa Temple. In *AMPS Proceedings Series 35.2 Prague – Heritages: Past and Present – Built and Social*, ed. Jitka Cirklová, Czech Technical University & AMPS, Prague, Czech Republic, 2024, 610-620. ISSN 2398-9467
- Regan Potangaroa, Renata Jadresin Milic, Sam Smith. Project Methodology and Workflow for Emergency Drone Recording and Processing: Case study Colonial Ammunition Company Shot Tower, Aotearoa New Zealand. *DISEGNARECON Journal*, Vol 16, No 31, (2023) 1.1-1.9. doi: <https://doi.org/10.20365/disegnarecon.31.2023.1> .
- Viola Vadász, Renata Jadresin Milic, Iman Khan. Is Our Heritage Falling Through the Gaps?, *Asylum*, Vol.2, December 2023, 322-329. doi: <https://doi.org/10.34074/aslm.2023206>.

Dissemination in academic environment – Journal Papers in the review process:

- Iman Khan, Renata Jadresin Milic, Bin Su, Viola Vadász. Learning from Practice in the Digital Age: 'Digitalisation of Heritage in New Zealand', *Architectural Science Review Journal*

Dissemination in academic environment – Journal Papers in preparation for submission:

- Xingru Song, Paul Baragwanath, Sameh Shamout, Renata Jadresin-Milic. The power of communities as a Means of Preserving Heritage - The case of St. David, Auckland, New Zealand.
- Renata Jadresin Milic, Iman Khan, Viola Vadász. Towards Sustainable Heritage Conservation: Using Multi-Methods in Qualitative Architectural Research. (*Buildings*, MDPI Journal targeted).

Dissemination in academic environment – Keynote lecture:

- Renata Jadresin Milic. Digital Heritage Research Centre and Degrees of Complexity in IMAGIN(G) Heritage in Aotearoa, Invited keynote "IMAGIN(G) HERITAGE". *4th International and Interdisciplinary Conference on Image and Imagination*. L'Aquila, Italy, July 6-7, 2023 (<http://www.img-network.it/conference-2023/>)

Dissemination in industry/professional media, media and community so far:

- Renata Jadresin Milic, Regan Potangaroa, Sam Smith. Scanning the Mt Eden Shot Tower, *ICOMOS Aotearoa New Zealand Newsletter*, March 2024, pp. 2-5. ISSN 0113-2237.
- "The historic tower that was pulled down after fears of toppling during Cyclone Gabrielle", *Staff*, 20 January, 2024.
- "Shot Tower saved for History", *Central Leader*, 20 April 2023.
- "Museum to acquire historic weathervane from CAC Shot Tower", *ourAuckland*, 03 April, 2023.
- "Drone footage used to make digital record of New Zealand's last standing shot tower", *Massey News*, 14 March 2023.

**Please list all submitted and successful external funding applications (a spreadsheet or similar can be appended if easier):**

Funding source	Amount applied for	Project	Result
Marsden Fund 2023 The Royal Society Te Apārangi	Phase 1: Expression of interest	"New Zealand's Cultural Heritage at Risk: A Trans-disciplinary Approach for enhancing Multi-Hazard Resiliency"	Not successful
Endeavour Fund Research Programme 2023 MBIE	\$10.7m	"Transforming Heritage Conservation in NZ: A Transdisciplinary Approach for/towards a More Resilient Environment"	Not successful

**Please report on the Centre's annual budgeted versus actual income from the year of commencement of the Centre to the year ended 31 December 2023 (expand the table accordingly, or alternatively this information can be appended if you have it in a different format):**

Income Source	Year Ending	Budgeted Income \$	Actual Income \$

**Briefly account for any difference between budgeted and actual income:**

In the Application to establish the Digital Heritage Research Center, we wrote that the centre would receive funding primarily from grants from central and local government

agencies and from industry partners. The centre has been working closely with colleagues from Tūāpapa Rangahau to identify all funding opportunities that may include paid consultancies, student scholarships and hosting conferences and symposia.

In 2023, we applied for the MBIE Endeavour Fund Research Programme funding and the Marsden Fund (both were not successful). In 2024, we did not apply for these funding sources again because of the severe lack of time capacity of Renata Jadresin Milic to prepare and submit such large, multi-stakeholder applications. However, we have been working towards the same applications to be prepared for early 2025. We will continue to do this according to the timing requirements of individual grant schemes.

In 2024, we have been actively pursuing externally funded research opportunities and developing our grant applications for: Catalyst Seeding General; New Zealand Mana Tūākana Research Leader Fellowships; Lottery Environment and Heritage Fund; Regional Historic Heritage Grants, Marsden Fund, Endeavour Fund. And we are registering for Horizon Europe 2024/2025.

Additional information about projects can be supplied on request and as they are prepared. Please note that we can have in-kind funding of ~\$100k from industry partners for professional services, specialist expertise and access to specialised equipment.

**If there is anything else you wish to report, please do so here:**

Nothing at the moment.

Please email your completed Research Centre Report to [bmassey@unitec.ac.nz](mailto:bmassey@unitec.ac.nz) before **Tuesday, 4 June 2024.**

## 2023 UNITEC RESEARCH CENTRE REPORT

Unitec's [Research Centre Procedure](#) requires Unitec's Research Centres to report annually to the Unitec Research Committee.

<b>Research Centre:</b>	Applied Molecular Solutions
<b>Centre Director:</b>	<i>Outgoing:</i> Prof. Peter de Lange Dr Sarah Wells

### **Outline any variations to the vision, mission, aims, priorities and/or distinctiveness of the Centre:**

The Unitec Herbarium and its associated facilities have now been integrated into the AMSRC. This decision was based on the fact that the research conducted by the Unitec herbarium, which was not previously formalised under any research centre, forms a natural extension of AMSRC's aims, priorities and research focus. Much of the work conducted within the Herbarium is already conducted in association with AMSRC due to the inclusion of molecular phylogenetics. Furthermore, the researchers from the herbarium and AMSRC work closely with each other in a natural capacity, and share research associates funded by Tuapapa Rangahau.

### **Vision Mātauranga aims “to unlock the innovation potential of Māori knowledge, resources and people to assist New Zealanders to create a better future”. Provide an overview of how the Centre has responded to this kaupapa:**

AMSRC (and our partner school EAS) has a strong history of partnering with Māori. EAS has a history of appointing Unitec Honorary Research Fellows to help us to learn about and understand Māori perspectives, to better partner and collaborate. Dr Nick Waipara, the late Kamera Raharaha, and Hema Wihongi have all been appointed. Dr Waipara is an active collaborator in the climbing asparagus and asbestos projects.

This year new collaborations with iwi were formed and strengthened. Dr. Sarah Wells (PI) and Prof. Peter de Lange (AI) partnered with Te Roroa iwi (co-PI) to develop a project to investigate the population genomics of a taonga species of plant only found in Te Roroa's rohe. This fully externally funded project has led to representatives of Te Roroa coming to the AMSRC for a week to learn about the molecular techniques used, and to learn how to perform these in the lab. During this visit, Te Roroa were welcomed with a mihi whakatau at Te Noho Kotahitanga marae, and Taoho Patuawa from Te Roroa also gave a talk to EAS and our students about their conservation efforts in their rohe, therefore promoting knowledge sharing. AMSRC investigators also went to Waipoua Forest for a hui with Te Roroa. This collaborative exchange is still ongoing. Dr. Sarah Wells has also been collaborating with hapū in the Bay of Islands for a new research project that she has begun that investigates morphological variation and population genomics in *Naultinus* and *Dactylocnemis* geckos in Northland. Sarah has formed close partnerships with many hapū in the region and was invited to Waitangi marae by Ngāti Kawa. Over the 2022-2023 summer she conducted fieldwork alongside Rana, the ecologist expert for Ngāti Kuta, and several other local hapū members in the area. These people have invited Sarah onto their properties, so that they can also learn about the taiao on their whenua. In 2024 she will also be conducting fieldwork in the rohe of Te Roroa alongside members of the Environs team of Te Roroa for this project. These collaborations will continue in 2024.

For the asbestos project AMSRC sought collaboration with mana whenua in the Nelson region to work with them in the asbestos deposits in the Cobb Valley area. We have held discussions

with Wakatū Incorporated (made up of four hāpu from the top of the South Island) to look at possible collaborative opportunities. Connected with this, we made contact with Mana Whenua ki Mōhūa (Ngāti Rārua, Ngāti Tama and Te Ātiawa) whose rohe contains the asbestos mine. After further discussion with their respective rūnanga, full support was given for our application for a research permit from the Department of Conservation. We have approached them to ask for a representative for a Kāhui Māori for the asbestos research to make their kaitiaki role easier and to share knowledge (including Mātauranga Māori if appropriate), and we have built this into our recently submitted MBIE Endeavour Fund application (March 2023).

In addition, in the asbestos Endeavour fund application, we have proposed to use kaupapa Māori research methodology to explore how rāhui can provide healing and remediation of asbestos contaminated sites. Rāhui enables the environment to recuperate and regenerate without the presence/impacts of humans. Its purpose is both physical and spiritual protection. Our VM-centred research will establish a kāhui of knowledge holders and practitioners who enact rāhui to explore appropriate monitoring methods, e.g. ‘cultural health indicators or ‘mauri’, that would inform regulated environmental reporting. This part of the project will be led by Dr Nick Waipara and Tanya White (kaihautū at Unitec), in collaboration with Dan Blanchon. Funding for a Māori masters student has been included in the Endeavour application.

**Summarise any opportunities afforded to students to be involved in the Centre and its activities:**

Sarah Wells supervised a third year BASci student conducting her research project for Negotiated Research. This project was partly-funded by AMSRC seed funding, and also by Sarah Wells’s ECR grant. The project investigated morphological and genetic variation in *Hemidactylus frenatus* geckos. It was in collaboration with two external stakeholders: MPI - who lent us the specimens, and Dylan van Winkel from Bioresearches Consultants. The student successfully conducted all molecular lab work in the AMS lab. The project is currently being written up as a paper for publication.

Sarah Wells also supervised a second BASci student who investigated morphological variation in tui, *Prothemadera novaeseelandiae*. As part of this project the student conducted lab work in the AMS lab to molecularly sex all tui samples. This project involved minimal cost, as DNA extractions were already available, but PCR costs were funded by AMSRC seed funding. This work is also currently being written up and will be submitted for publication.

Peter de Lange and Marleen Baling co-supervised a third year BASci student who investigated taxonomy and molecular phylogeny of *Muehlenbeckia* “Chathams”. This work was published as a paper (see below).

Marleen Baling supervised a third year BASci student who quantified endoparasite load in captive inland bearded dragons. This work was written up as a publication (see below).

Peter de Lange supervised a BASci student conducting her research project for Negotiated Research on the ecological influences on fluorescence in lichens. This project formed a collaboration with Ass. Prof. Dan Blanchon of the Auckland Museum.

Marling Baling has a current third year BASci student analysing fantail nests constructions. They plan on using the AMS lab to extract DNA from the nests to provide insight into its construction materials and the diet of fantail nestlings.

**Outline any changes pertaining to the management and operation of the Centre, including to the Centre’s Advisory Board and personnel working in or with the Centre:**

Prof. Peter de Lange resigned from his co-directorship due to other commitments. Dr. Sarah Wells remains the director of the research centre.



### Outline any changes to the Centre's research streams/themes:

No significant changes were made in 2023.

### Outline any changes to the Centre's internal and external partnerships/collaborations, highlighting any new partnerships/collaborations that have been made:

In 2023, AMSRC became an associate of Genomics Aotearoa, a government funded organization to promote genomics research in New Zealand. Dr. Sarah Wells attended the Genomics Aotearoa AGM in November 2023 and represented AMSRC at this two-day event. This trip was fully funded by Genomics Aotearoa. Genomics Aotearoa is also the external funder of Sarah Wells's collaborative project with Te Roroa (see VM section).

Most internal and external partnerships outlined in the AMSRC Centre Application are still active. Relationships with Auckland Zoo, Auckland Museum, Auckland Council, Massey University, HRV, Wakatū Incorporated, and Mana Whenua ki Mōhua have been strengthened. New collaborations with staff at Landcare Research, Auckland Zoo, have been formed. New projects involving Project Island Song, Babbage Consultants, MPI, and the Department of Conservation have been initiated. As part of the asbestos bioremediation project, collaborations with Professor Mike Manefield at the University of New South Wales, and existing partnerships have been strengthened with the University of Turin (Italy) and Fox Chase Cancer Center (USA).

### Please list all submitted and successful external funding applications (a spreadsheet or similar can be appended if easier):

Funding source	Amount applied for	Project	Result
Genomics Aotearoa	\$70,000 of a total \$140,000 for the project.	Population genomics of Ngā roimata o Tohe	\$70,000

### Please report on the Centre's annual budgeted versus actual income from the year of commencement of the Centre to the year ended 31 December 2023 (expand the table accordingly, or alternatively this information can be appended if you have it in a different format):

Income Source	Year Ending	Budgeted Income \$	Actual Income \$
Taxonomy (Landcare - Peter de Lange, RE18010)	December 2023	\$49,884	<b>\$31,771</b>
Auckland Council (Climbing asparagus – Dan Blanchon, RE19017)	December 2023	\$86,550	<b>\$46,366</b>
DoC (Taxonomy of Leptospermum) – Peter de Lange RE19022)	December 2023	\$65,000	<b>\$20,028</b>



Landcare (Myrtaceae, Peter de Lange, RE19006)	December 2023	\$	<b>\$1,351</b>
Data Deficient Lichens (DoC) (Dan Blanchon, RE22001)	December 2023	\$20,000	<b>\$2,347</b>
Vinepod (RE21022, Dan Blanchon)	December 2023	\$	<b>\$2,307 (account closed this year)</b>
HRV	December 2023	Unknown*	<b>Unknown*</b>
Nga roimata o Tohe (RE23012, Sarah Wells)	December 2023	\$	<b>\$2,307**</b>

### **Briefly account for any difference between budgeted and actual income:**

Differences in Actual income versus Budgeted income likely reflect differences in how the money has been budgeted for compared to how it was spent. All money that was allocated to AMS this year has been received.

\*AMSRC provides the molecular biology and microbiology elements of the ESRC-led asbestos bioremediation project (funded by the Ministry for the Environment) and indoor air quality project (funded by HRV Ltd.). A portion of the funding is allocated for AMSRC but it is not clear where this portion of the funding has ended up in Unitec's accounts.

\*\*This project was still awaiting funding at the end of 2023, hence the difference between budget and actual.

### **If there is anything else you wish to report, please do so here:**

Sarah Wells represented AMSRC at the AGM of Genomics Aotearoa. Here she networked with other researchers in genomics in Aotearoa. In particular she formed new connections with scientists at Scion who were interested in collaboration and co-supervision on future Masters projects via the new Te Pūkenga Master of Applied Science program. They had previously engaged supervisors at Toi Ohomai that did not have molecular backgrounds. They were unaware that Unitec had researchers with a molecular background and a molecular lab and were excited to collaborate further. Sarah also met and discussed future collaborations with another researcher in molecular ecology from the University of Otago.

AMSRC has been taking advantage of the free online workshops provided by Genomics Aotearoa for professional development. In particular, our two research associates, Erin Doyle and Tianyi Tang, have been attending these workshops to upskill in bioinformatics.

Sarah Wells and Marleen Baling attended the 2023 Society for Research on Amphibians and Reptiles in New Zealand (SRARNZ) conference in Akaroa in November 2023. Marleen Baling also organised the conference. Sarah Wells presented a recently published paper at this conference (see below).

## Publications

- van Winkel D., **Wells S. J.**, Harker N., and Hitchmough R. **2023**. On the sand and among the crowds: a new species of *Woodworthia* gecko (Reptilia: Diplodactylidae) from Auckland, New Zealand. *Zootaxa*.
- **Marshall A. J.**, Blanchon D. J., **de Lange P. J.**, **Wells S. J.**, Fryday A. M., **Tang T.**, and Knight A. **2023**. *Megalaria crispisulcans*, a new isidiate species of *Megalaria* (Ramlineaceae) from New Zealand. *Perspectives in Biodiversity*.
- van Winkel D. and **Wells S. J.** **2023**. *Oreophryne brachypus* (Gazelle Cross frog) advertisement call, *Herpetological Review*, (accepted for September 2023 issue).
- **Sarah J. Wells**, Dylan van Winkel, and Ben P. Barr. **2023**. Interference competition following a recent invasion of plague skinks (*Lampropholis delicata*) into a nationally critical native skink population, *Pacific Conservation Biology*, (online early) <https://doi.org/10.1071/PC23003>
- **Doyle, E.**, Blanchon, D., **Wells, S.J.**, **de Lange, P.**, Lockhart, P., Waipara, N., Manefield, M., Wallis, S., & Berry, T.A. **2023**. Internal Transcribed Spacer and 16S Amplicon Sequencing Identifies Microbial Species Associated with Asbestos in New Zealand. *Genes*, 14(729), 1-12. <https://doi.org/10.3390/genes14030729>
- Bannister, JM; Knight, A; **Blanchon, D** (**2023**). Reinstatement of *Usnea capillacea* Motyka (lichenized Ascomycota, Parmeliaceae) to the New Zealand lichenized mycobiota. *Australasian Lichenology* 92: 8-13.
- **de Lange, P.J.**, **Blanchon, D.J.**, **Marshall, A.J.** and Schmid, L.M., (**2023**). *Lepra erythrella* (Pertusariaceae) –a new addition to the lichenized mycobiota of the Aotearoa/New Zealand archipelago. *Ukrainian Botanical Journal*. 80(1): 94-97.
- **de Lange, P.J.**; Atkins, G.J.; Renner, M.A.M.; **Fisher, L.M.K.**; **Marshall, A.J.**; Schmid, L.M.H. **2023**: *Leptospermum tairawhitiense* (Myrtaceae), a new species from Aotearoa / New Zealand, segregated from *Leptospermum scoparium* s.l. *Ukrainian Botanical Journal* 80: 386–398.
- Lewes, N.; Young, M.; Vorster, J.; Paenga, B.; Skinner, D.; Harcourt, N.; **de Lange, P.J.**; Haira, T.; Blockley-Powell, S.; Munkacsi, A.; Keyzers, R.A. **2023**: Comparison of chemical profiles of Kanuka (*Kunzea robusta* de Lange & Toelken, Myrtaceae) essential oils. *Phytochemistry Letters* 56: 50–56.
- Simpkins, E., Woolley, J., **de Lange, P.J.**, Kilgour, C., Cameron, E.K., & Melzer, S. (2023). Conservation Status of Vascular Plant Species in Tāmaki Makaurau / Auckland. *Auckland, Auckland Council* (Vol. TR2022/19).
- Schmid, L.M.H., **de Lange, P.J.**, & **Marshall, A.J.** (2023). *Leptospermum hoipolloi* (Myrtaceae), a new species from Aotearoa / New Zealand, segregated from *Leptospermum scoparium* s. l. *Ukrainian Botanical Journal* (Vol. 80(3)).
- Ford, M., Padamsee, M., Schwendenmann, L., Dopheide, A., & **de Lange, P.J.** (2023). The mycorrhizal communities of *Lophomyrtus bullata* Burret (Myrtaceae) within three natural forest associations of New Zealand. *New Zealand Journal of Ecology* (Vol. 47(1)).
- **de Lange, P.J.**, & Hitchon, T. (2023). *Azolla rubra* R.Br. (Salviniaceae) on Rēkohu / Wharekauri / Chatham Island. *Perspectives in Biodiversity* (Vol. 1(1)).
- **Baling, M.**, McKenzie, D.J.M., Scott, R.K., van Vugt, L.H., Tuanui Chisholm, H., & **de Lange, P.J.** (2023). Observations of avifauna on Rēkohu / Wharekauri / Chatham Island, Chatham Islands group, in February 2023. *Perspectives in Biodiversity* (Vol. 1(1)).

- **de Lange, P.J., & Blanchon, D.J.** (2023). New combinations in *Helichrysum simpsonii* Kottaim. for the taxa described as *H. selago* var. *acutum* Cheeseman and *H. selago* var. *tumidum* Cheeseman (Asteraceae) from Aotearoa / New Zealand. *Ukrainian Botanical Journal* (Vol. 80(4)).
- Matthews, J.K.; Fraser, D.; **de Lange, P.J.** 2023: Biological control of weeds in Aotearoa / New Zealand: History, science and achievements to date. *Perspectives in Biosecurity* 8: 10-32.
- Shepherd, L.D.; Townsend, A.J.; **de Lange, P.J.**; Perrie, L. 2023: Genetic analysis of a genus of plant mimics (*Alseuosmia* A.Cunn; Alseuosmiaceae) reveals incongruence between morphology and phylogeny and possible mimetic polymorphism. *Evolutionary Journal of the Linnean Society* 2: <https://doi.org/10.1093/evolinnean/kzad005>
- James, C.J.; **Large, M.F.** 2023: Sporulation and spore viability in *Nephrolepis exaltata* (L.) Schott, Nephrolepidaceae, collected from a naturalised population (Oratia, Tāmaki Makaurau / Auckland, Aotearoa / New Zealand). *Perspectives in Biosecurity* 8: 1-9.
- Kerrigan M, Brill S, & **Baling M** 2024. Arboreal behaviour and habitat use in the Nationally Critical Kapitia skink (*Oligosoma salmo*). *Perspectives in Biodiversity*.2(1): 11–20. <https://doi.org/10.34074/pibdiv.002103>
- Pike C, Hsieh S, & **Baling M** 2023. Monitoring infection load of oxyurid (nematoda) and *Isospora* (coccidia) in captive inland bearded dragons (*Pogona vitticeps*). *Perspectives in Animal Health and Welfare*. 2(1): 77–90. <https://doi.org/10.34074/piahw.002106>

#### Conference presentations:

- **Sarah J. Wells**, Dylan van Winkel, and Ben P. Barr. 2023. Interference competition following a recent invasion of plague skinks (*Lampropholis delicata*) into a nationally critical native skink population. Oral presentation at the Society for Research on Amphibians and Reptiles in New Zealand (SRARNZ) conference in Akaroa, December 2023.
- **de Lange, P.J.** (2023). What's in a species. *Auckland Botanical Society, Unitec Institute of Technology / Te Pūkenga*.

## Te Komiti Rangahau o Unitec | Unitec Research Committee Self-Assessment

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**Purpose:** NZQA requires the Committees of Unitec's Academic Board to provide evidence of self-assessment.

### Te Komiti Rangahau o Unitec Self-Assessment Provocations

- Can we improve the way the committee is run?
- Is time well managed?
- Are issues under discussion well-handled and resolved?
- Are the agenda and minutes well handled?
- Are the perspectives of committee members respected and heard?
- Are actions completed and accounted for?
- Were there matters raised and dealt with in the meeting that were particularly helpful or unhelpful?
- Does the committee oversee and ensure compliance within its mandate?
- Does the committee show foresight and proactively engage in continuous improvement?
- Does the committee review and improve the relevant policies, guidelines and regulations?