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Celebrating the first ten years of the Matariki Network

2010-20



**“Ki te Kotahi te kaakaho
ka whati, ki te kaapuia,
e kore e whati”**

*“When a reed stands alone it can
easily break, but when bound
together, it is unbreakable.”*

The second Māori King, Tūkāroto Matutaera Pōtatau Te Wherowhero Tāwhiao



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The foundation of a distinctive university network



A personal reflection by Professor Sir David Skegg, Former Vice-Chancellor, University of Otago

Universities, since their origins in medieval Europe, have been engaged internationally to a greater extent than most other institutions in society. The early Latin name for a university, *studium generale*, meant a place where students from anywhere would be welcomed. Teachers were also able to move from one university to another. In recent decades, increasing awareness of the benefits of international relationships has led to the establishment of numerous networks of universities in different countries.

Many of these groups are large and diverse. The oldest network, the Association of Commonwealth Universities (ACU), was established in 1913 and includes over 500 universities in 50 countries. Even the more recent alliances tend to be sizeable – for example, the Coimbra Group and the Association of Pacific Rim Universities have 41 and 51 members, respectively. It has been said that some meetings of university networks take on the formality of the United Nations!

When I became the Vice-Chancellor (equivalent to President or Rector) of the University of Otago, I was aware that our University was a member of the ACU, but had refrained from joining other international networks. There was a concern that

the complexity of these alliances meant that the benefits would not justify the expenditure of time and resources. Nevertheless, I was attracted by the idea that a much smaller group of like-minded institutions could learn from each other and collaborate in serving their students and the international community.

This idea crystallised when I visited 21 universities in seven countries, as I prepared for my role as Vice-Chancellor. Among the universities I visited were Uppsala, Durham and Queen's in Canada. I was struck by how much Otago had in common with other research-led universities that emphasised a rounded student experience and were based in university cities or towns. They were different from the much larger universities in major metropolitan centres. Initial discussions about possible links involved Dr John Dixon at Queen's University in Canada, Professor Alan Robson at the University of Western Australia, and Professor Chris Higgins at Durham University. In April 2009, these people accepted our invitation to come to New Zealand to discuss the idea of establishing a select network of campus-based universities. Such institutions were to be scholarly communities, where excellence in research and education takes equal priority; where leading researchers are engaged in all aspects of teaching; and where education involves a combination of academic learning and personal growth in a diverse community.

As well as considering the possible functions of such a network, the initial planning group considered which other universities might be invited to join in the discussion. Several criteria

... excellence in research and education takes equal priority; where leading researchers are engaged in all aspects of teaching; and where education involves a combination of academic learning and personal growth in a diverse community.

were used to assess a large number of potential partners in many countries, always bearing in mind the intention to confine the group to a relatively small number of excellent institutions. It was agreed that, in the first instance, we should approach certain universities in continental Europe and the United States. I subsequently visited Uppsala University in Sweden, the University of Tübingen in Germany, and Dartmouth College in the USA. I was delighted that the leaders of these institutions were all attracted by the concept being developed. Like the other four, these universities are among the oldest and foremost places of learning in their regions, while having modern practices and an international outlook.

The next step was to bring together leaders of all seven universities, at an inaugural Board Meeting which was hosted by Durham University in February 2010. There was discussion about many intended activities of the network, including student and staff exchanges, visiting fellowships, benchmarking and sharing of best practice, collaborative research workshops, and joint cultural events. The intention of all the universities was to work together, not only for their mutual benefit, but also for social responsibility in a global context. This was reflected in the choice of a motto, 'Partnering for a better world'.

Ironically, one of the hardest decisions was choosing the name for the new partnership. We wanted a name that was less pedestrian than those of some other networks. Naming the network after a famous scholar or scientist (for example, Linnaeus or Darwin) would have

had the drawback that the person would be identified with a particular academic field and one country. Since classical words have wide currency, at least in Western societies, we thought about names such as the Minerva or Sapientia Network of Universities. Various place names were also considered. Because each of the partners is renowned for the beauty of its campus, someone suggested that the group should be called SBB – small but beautiful! After many weeks of email correspondence, one proposal was enthusiastically adopted at the Durham meeting. This was to call the group the Matariki Network of Universities.

Matariki is the Māori name for the cluster of stars known as the Pleiades, or 'Seven Sisters'. The latter association seemed appropriate, since there were to be seven founding partners. In Māori culture, Matariki symbolises a new beginning, because the Māori New Year is marked by the rise of Matariki. Before this name was adopted by the group, the University of Otago consulted its Māori Treaty partner.

Another question to be discussed was whether the network should be expanded to include universities from all continents, and from developing countries in particular. Two considerations weighed against this idea, at least for the time being. Firstly, we wanted the group to be small, so that deep relationships could be formed. Secondly, the relative 'aliveness' of institutions was another essential requirement, if the aims for collaboration were to be fully realised. Nevertheless, it was agreed that this question could be reconsidered after the

network had been well established.

The Matariki Network of Universities (MNU) was formally launched at all seven institutions in May 2010. Later in that year, Queen's University hosted the first Matariki Workshop, which was on the theme of 'Renewable Energy and Society'. The secretariat for the network was initially based at the University of Otago, but later moved to Durham University.

The founding partners agreed to remain as members of the network for at least five years. It is very gratifying to see the same seven universities now celebrating ten years of fruitful collaboration. A surprising range of activities has occurred, as can be seen from the website of the network. Apart from all the research discussions and student experiences, a highly beneficial aspect has been the opportunity for members of universities to confide in, and learn from, 'critical friends' in other countries. I have been told about this by university leaders, by academic staff at various levels, and by professional staff such as librarians and people responsible for student welfare.

International communication and collaboration are becoming even more vital, with increasing nationalism in many quarters and unprecedented disruption caused by the COVID-19 pandemic. I trust that the next decade will be as successful as the first ten years, for the Matariki Network of Universities.



Matariki at a glance

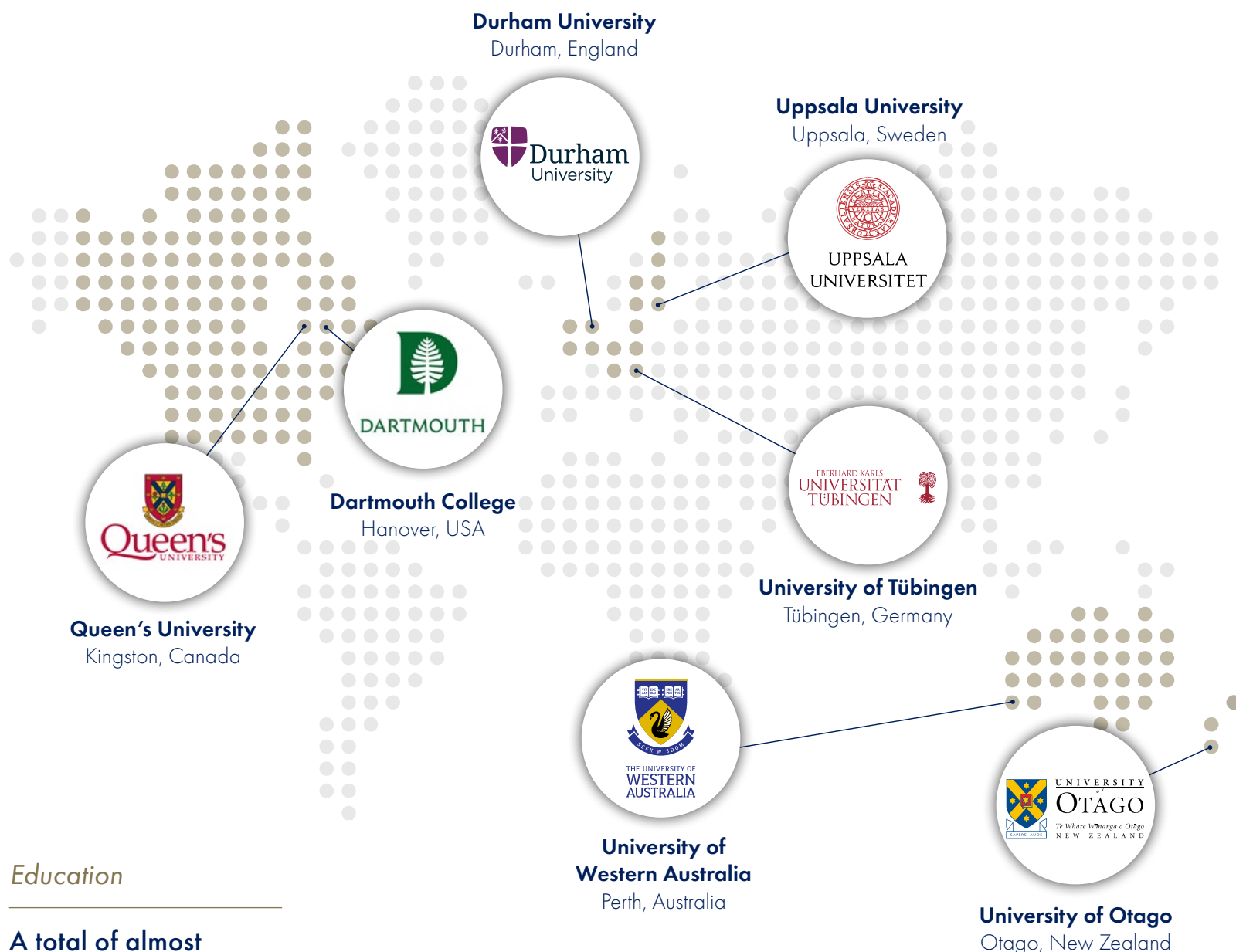
The first ten years

2010-2020



Partnering for a better world

matarikinetwork.org/about/contact



Education

A total of almost

1,000

students have been involved in some sort of physical mobility programme under the Matariki umbrella over the 10 year period.

Matariki celebrating 10 years

Overall number of students involved in Global Citizenship Programmes

76

Total number of students involved in formal academic exchanges (2013-20)

827

Overall number of students involved in Matariki Indigenous Student Mobility Programme

76

Research

Number of Matariki
Annual Lectures

4

Number of active
research themes

7

184

people participated in
Humanities Network events
(2013-19)

A total of

638

people attended 41 different
Research Workshops
(2013-19 NB 2020 postponed)

Research Themes

- Brain and Mind: Integrative Neuroscience
- Cyber Security
- Oceans and Blue Economy
- Peace and Conflict
- Quantum Science
- Risk Studies
- Sustainability, Environment and Resources

1,069

academic visits around the
network since MNU began.

247

individual researcher
academic travel grants
have been awarded
(2013-20)

Number of co-publications

2011-2014
589

2015-2017
783

2018-2020
786

Total

2,158

(NB 2020 data incomplete)

Matariki 3MT®

Number of contests

2

Number of participating
students

25

Total number of People's Choice
public votes

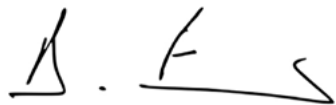
2,549

Chair's Welcome

Dear Reader,

I would like to wish you a very warm welcome to the Matariki Network of Universities' ten-year anniversary report. We are very proud of how far our small but outstandingly successful international network of seven universities has come over the past decade of collaboration. I would like to take this opportunity to share our successes with our valued partners and stakeholders. I invite you to join us for a journey through ten years of our Matariki Network. As we celebrate our remarkable achievements so far, I look forward to the next ten years together.

With warm regards,

A handwritten signature in black ink, appearing to read 'B. Engler', with a stylized flourish at the end.

Bernd Engler,

Matariki Network Chair, 2020-2022

Our Global Partners

Philip Hanlon President Dartmouth College, United States



In 2010, under the leadership of the then Provost and Dean of the Faculty of Arts and Sciences, Carol Folt, Dartmouth College became one of seven founding members of a new global network of universities: the Matariki Network of Universities (MNU). The coalition was launched to increase opportunities for its member institutions to share ideas, expertise and best practices. Dartmouth's long tradition of framing a Liberal Arts education in international terms has allowed our students and faculty to collaborate with people all around the world. We have gained so much from these scholarly communities. During this tenth anniversary year, occurring when we are all grappling with a global pandemic, we are given an opportunity to slow down and reflect on what we have accomplished through a range of productive collaborations.

One of Dartmouth's proudest collaborations has been playing a lead role in developing the Matariki Indigenous Student Mobility Programme (MISMP), along with the University of Otago and the University of Western Australia. The programme brings together Native students from each institution for a two-week academic programme hosted each year at one of the participating universities, which has also included Durham University and Queen's University. Dartmouth had the privilege of hosting the programme in June 2018, when students were able to learn about Native History in the United States, study Science and Indigenous Knowledge, and travel to Connecticut as guests of the Mohegan Nation.

The Matariki Global Citizenship Programme (GCP) has provided opportunities for our students to engage in a ten-week global citizenship exchange programme. Our students have learned about cultural competency, engaged in social impact work on the global stage, and begun to understand what it

means to be a responsible citizen of the world. The programme takes mostly abstract ideas of student empowerment and develops tools for tackling real-world problems. Several of our students have commented that their participation helped them to discover that the concept of being a global citizen is not easily defined. But each student walked away with a new and more personalised definition.

The growth in research collaborations across the MNU institutions has been incredibly valuable to Dartmouth. The seven MNU research themes (see page 29) have given our faculty and students a diverse way to engage with our member institutions. Dartmouth leads on the Cyber Security theme and recently partnered with Durham researchers to host a debate on the role of artificial intelligence and machine learning in modern society. The Dartmouth-Durham debate highlighted the importance of cyber security in today's digital society, with a focus on developing robust systems for reducing the risk of cyberattacks.

Finally, collaboration and sharing of ideas and experiences with our Matariki partners – especially during this unprecedented time – has been invaluable to Dartmouth College. Learning how each of us manages the same set of issues, but coming from different contexts, has helped us in our own thinking on such complex issues. Notably, at the October 2017 Executive Board meeting hosted here at Dartmouth, the meeting opened with a robust discussion on topics that all partners are facing at their institutions. Politics within our respective countries and mental health/sexual assault on campus were two topics that we had all been facing. It was interesting and educational to hear how, for example, each member's particular political landscape was impacting higher education. This discussion benefited the network by the sharing of best practices, especially in the area of mental health.

The Matariki Network of Universities has enriched the Dartmouth community, by creating tangible ways for our students and faculty to partake in valuable collaborations on a global scale. We will watch the evolution of our network with interest as we all struggle with the global pandemic and how it will change the way we are able to partner and learn from each other.

Philip Hanlon
President
Dartmouth College

The growth in research collaborations across the MNU institutions has been incredibly valuable to Dartmouth. The seven MNU research themes have given our faculty and students a diverse way to engage with our member institutions.



Stuart Corbridge Vice-Chancellor and Warden Durham University, United Kingdom

University College, Durham



In February 2010, university leaders met in Durham to officially launch the Matariki Network, a group of seven like-minded institutions convened by Otago's then Vice-Chancellor Professor Sir David Skegg.

Durham has, of course, long welcomed partner institutions to our campus, but this inaugural board meeting represented Durham's first engagement with an institutional-level, international network of this kind. As a central component of Durham's internationalisation efforts, I am delighted to join with our Network partners to celebrate Matariki's tenth anniversary and to reflect on a decade of collaboration in research, education and the wider student experience.



As a research-intensive university, Durham has always been keen to promote research activity within the Network and to take advantage of opportunities for collaboration with Matariki partners. Much of this activity has revolved around the Network's research themes, including a number of workshops on Disaster Resilience and Risk Studies, hosted by Durham's Institute of Hazard, Risk and Resilience. While we will continue to encourage collaboration in this field, we are now looking forward to leading on a new theme of Global Health, leveraging world-leading research across the Network in the spirit of Matariki's strapline, 'Partnering for a better world'.

As a relatively small network of like-minded institutions, Matariki has offered excellent opportunities for benchmarking and the sharing of best practice over the last decade.

Matariki has also provided opportunities for collaboration outside the formal research themes. This includes the series of biennial scientific conferences on black holes, led by physicists at Durham and Dartmouth, that also celebrates its tenth anniversary this year (see page 46). Durham researchers have also been active in the annual Humanities Colloquium, which has grown from strength to strength since its inaugural conference in 2014.

Though these meetings often involve senior academics, we are determined that Matariki should also offer opportunities for younger researchers, and I am proud of Durham's role in establishing cross-network commitment to the PhD/Postdoc Mobility Scheme. This scheme will complement some of the excellent doctoral Summer Schools organised under the Matariki umbrella, such as the 'Borders and Boundaries' programme organised in conjunction with Uppsala in

2019. Likewise, I am delighted that Durham PhD students will again participate in the recently established Matariki Three Minute Thesis (3MT®) competition, an excellent way to showcase new research across the network.

Developing international opportunities in education and the wider student experience has also been a central feature of Durham's engagement in Matariki. Durham students have benefited enormously from the Network's two flagship education initiatives: the Matariki Indigenous Student Mobility Programme (MISMP); and the Global Citizenship Programme. Durham students and staff have been particularly involved with the development of the latter, and I am grateful to St John's and Ustinov colleges, whose efforts were central to the hosting of last year's forum, where student discussions revolved around the theme of 'Empowering Learners' (see page 69).

Alongside our in-session student exchanges, under the Global Citizenship Programme we have hosted student research and community engagement placements that have enabled students to develop a cultural understanding at far greater depth. Outcomes of these blended placements include an accessibility audit of St John's College and a valuable community engagement project undertaken by students from the University of Western Australia and Dartmouth College respectively.

As a relatively small network of like-minded institutions, Matariki has offered excellent opportunities for benchmarking and the sharing of best practice over the last decade. Colleagues in Professional Services at Durham have benefited enormously from benchmarking exercises in fields such as international student experience, graduate training, wellbeing, libraries and collections, and more. Indeed, the Bill Bryson Library extension at Durham is, in part, physical testament to consultation with colleagues at Otago. I am also proud that Durham colleagues have been able to advise on initiatives elsewhere, including Tübingen's re-application to its national University of Excellence scheme and Queen's application as a signatory to the Magna Charta Universitatum. A great deal of exchange of ideas and experience also takes place on a more informal basis; the ability to



rely on a trusted network of 'critical friends' has been of vital importance for Durham, when considering the challenges facing our sector globally, including the disruption caused by the COVID-19 pandemic.

From pandemics to geopolitics, the world has changed a great deal since that inaugural meeting in Durham in 2010. As our sector adapts to this 'new normal', the values of international cooperation and collaboration on which our network is built are more important than ever. I am pleased and proud to see how students and staff have contributed to our common goal.

Though my personal involvement in Matariki will cease following my retirement next summer, I look forward to handing over my responsibilities as Vice-Chair to my successor, instilling in them my view of the value of the Matariki Network and our collective mission of 'Partnering for a better world'.

Stuart Corbridge

Vice-Chancellor and Warden
Durham University

Matariki Network Vice-Chair (2020-22)



Harlene Hayne Vice-Chancellor University of Otago, New Zealand

The Clocktower Building



Establishment of the Matariki Network of Universities (MNU) was very much the inspiration of our previous Vice-Chancellor, Professor Sir David Skegg. Over the last ten years, we have seen his vision for a group of like-minded universities working together to benefit the network and the wider global community gradually come to fruition.

The University of Otago aspires to be a research-led university with an international reputation for excellence, and the Matariki research themes have been an important aspect of our involvement in the MNU. Otago hosts the Brain and Mind: Integrative Neuroscience theme. Professor Cliff Abraham took on the role as inaugural Director in 2012, and the theme is now led by Associate Professor Steph Hughes. During the last eight years, there have been several successful fora and the exchange of

We were proud to host the 2019 lecture given by Professor Jane Lydon (UWA) at University of Otago, entitled “Imperial Emotions: Empathy, Politics and Global Networks”, as part of our university’s 150th celebrations.

scientists across the network to foster ongoing collaborations. Otago researchers have also participated in the other research themes, hosting the second workshop of the Quantum Science group, and being actively involved in the ‘Peace and Conflict’ theme, hosted by Uppsala University.

Otago also hosted the inaugural Humanities Colloquium in 2014, organised by Professor

Takashi Shogimen. This has resulted in teaching exchanges and research collaborations between various Matariki partners, including on digital humanities, which has been a key area of interest for Otago.

The establishment of the network’s annual Matariki Lecture has been an excellent way to share research expertise and also raise the profile of the MNU. We were proud to host the 2019 lecture given by Professor Jane Lydon (University of Western Australia) at the University of Otago, entitled ‘Imperial Emotions: Empathy, Politics and Global Networks’, as part of our University’s 150th celebrations.

As an international group of like-minded universities, we have grown to be trusted friends, which allows us to benchmark and learn from each other. We have shared our concerns and our solutions across a wide range of areas. Our library staff were one of the first groups to realise the opportunities afforded by trusted friends and, throughout the past decade, they have held annual meetings to identify best practice and then implement these learnings, to ensure we are able to provide internationally appropriate services. Similarly, there have been regular meetings of our International Leads from all seven universities, which have resulted in enhanced exchange opportunities for our students and benchmarking of various aspects of support for international students.

Otago has also established Matariki Fellowships for our staff to visit Matariki partners, in order to foster research and teaching collaborations. During the last ten years, a large number of academics have benefited from this opportunity, and we have now extended the Fellowships to senior professional staff, to allow them to learn from our Matariki colleagues.



Commitment as a local, national and global citizen is one of the University of Otago’s strategic imperatives. The Global Citizenship Programme was initiated in 2016, and students from across the network have been key in driving this exploration of problems and potential solutions of issues that have global significance. Other opportunities for our students to benefit from the Matariki connections include the Three Minute Thesis (3MT®), which began last year. This is a great way to recognise our talented graduate students and to provide an opportunity for them to network with their peers.

Many of the MNU institutions are situated in countries with significant Indigenous populations. The Matariki Indigenous Student Mobility Programme has been a key programme, which recognises the importance of our Indigenous peoples and their cultures. It has so far been hosted by four Matariki partner universities and has brought Indigenous students together to learn about each other and their communities, and to discuss their concerns and aspirations.

Much has been achieved across the MNU over the last ten years. As the friendships between the seven international universities continue to grow, as our research and teaching collaborations develop further, and as we strive to become global citizens, we will continue to partner to face the challenges that beset us to try and make a better world.

Harlene Hayne

Vice-Chancellor
University of Otago

Patrick Deane

Principal and Vice-Chancellor

Queen's University, Canada



Our engagement with the Matariki Network of Universities (MNU), as critical friends who come together to exchange ideas, has assumed a heightened urgency this past year. Now more than ever, our worldwide partnerships remind us of the importance of shared values and ideas. For ten years, membership in the MNU has connected universities which commit to core values of excellence in research-led education in the natural sciences, social sciences and humanities. Each of the seven member institutions promotes a combination of academic learning and personal growth through extracurricular activities in diverse scholarly communities. Our collective hope is that we prepare well-rounded citizens, who are able to contribute in meaningful ways to the compelling priorities of the time, notably those highlighted in the MNU: sustainability, social responsibility, gender equality, and affordable and clean energy.

Affiliation with the Matariki Network allows Queen's to benchmark itself alongside other research-intensive universities through the collection annually of seven key metrics which encompass the broad spectrum of programming. Matariki also enables us to discuss areas of concern, and to seek clarity and act with unity on issues that concern all of us.

Queen's is honoured to be the sole Canadian institution in this network and will continue to uphold our theme of 'Partnering for a better world'. As Queen's University renews its international strategic plan in the year ahead, our affiliation with the MNU is an opportunity to work with partners on a central commitment of this emerging plan: to broaden and deepen our impact in the local, national and global communities of which we are a part. We look forward to collaborating with the MNU in a shared pursuit of sustainability goals.

Some of our more recent activities in the network include the following.

Under the leadership of Kanonhsyonne Janice Hill and Dr Lindsay Morcom, the Indigenous community hosted the Matariki Indigenous Student Mobility Programme in summer 2019. This two-week programme, themed 'Learning, Language and Land', included discussions, participatory exercises, connections to the land, tours, films and presentations for 19 students from five of the Matariki partners. A research collaboration on 'Language and the Land in Global Indigeneity' has emerged out of this programme.

The Queen's–Dartmouth Research Development Fund provides financial support for faculty at Queen's University and Dartmouth College to develop or deepen scholarly collaboration. Three research projects that have received funding have been active, in spite of restrictions on travel and in-person meetings:

- The Seasonal Dynamics of Salinity in Local Lakes and Streams;
- Using Virtual Reality and Electroencephalography to Investigate the Behavioural and Neural Underpinnings of Attention and Distraction;
- The Last Mile: Global Health Services Delivery.

The Bader International Study Centre (BISC) is home to the Global Citizenship Programme at

Queen's. Led by Professor Barbara Holler, BISC students travelled to the University of Otago in 2018 and to Durham University in 2019 for critical interactions on the themes of 'Community Engagement' and 'Empowering Learners'.

The MNU Three Minute Thesis (3MT®) competition launched in 2019, allowing PhD candidates the opportunity to pitch their research on a global platform. Nevena Martinovic, a PhD candidate in English Language and Literature at Queen's, captured the runner-up award in the network's inaugural competition for her talk: 'Acting your age – Gender and age on the 18th-century stage'.

Most recently, Queen's has finalised plans for the launch of the Matariki PhD/Postdoc Mobility Scheme, offering financial support. Two awards will be granted, for a maximum Can\$6,000 each.

As Queen's University renews its international strategic plan in the year ahead, our affiliation with the MNU is an opportunity to work with partners on a central commitment of this emerging plan: to broaden and deepen our impact in the local, national and global communities of which we are a part.

Queen's researcher Professor Ryan Mulligan's participation in the 'Oceans and the Blue Economy' research symposium in 2017 resulted in a chapter in the Routledge publication *Marine Extremes*. Following Professor Mulligan's participation in the most recent symposium in 2019, the Beaty Water Research Centre at Queen's looks forward to hosting the next meeting of the 'Oceans and Blue Economy' group in summer 2021 under Queen's MNU research theme: 'Sustainability, Energy and



Resources'

The Matariki Digital Humanities Colloquium: Research and the Curriculum, held in 2016 at Queen's University, brought together six of the seven universities in the network to discuss the ways in which research projects and student learning experiences can intersect and benefit both research and learning outcomes. For libraries, the colloquium also underscored the need to care about ongoing global access to the scholarly outputs of Digital Humanities in this emerging landscape, just as we have cared about the scholarship of the past. This meeting advanced the vibrant network of MNU librarians and Humanities researchers. In follow-up meetings in Uppsala and at the University of Western Australia, participants from Queen's University created a virtual exhibit of digital initiatives across disciplines, showing the many ways in which Humanities researchers at Queen's are using digital technologies to pursue previously unimaginable learning and research opportunities that impact human lives in our local community and beyond.

Patrick Deane

Principal and Vice-Chancellor
Queen's University

Bernd Engler

President and Vice-Chancellor

University of Tübingen, Germany



The Matariki Network of Universities was the University of Tübingen's very first multilateral strategic network in international cooperation and partnership. It initiated a whole new paradigm for collaboration that went far beyond our numerous long-standing bilateral relationships. A key example of this is the Matariki Network's important role in the formation and further development of the University's internationalisation strategy. This was a key component of our institutional strategy 'Research –

Relevance – Responsibility', designed for our application for the German Excellence Initiative in 2011/12. The founding of Matariki in February 2010 came at just the right moment, as the selection of our most important strategic partners worldwide was a high priority at that precise time. Since then, the Matariki Network's model of an 'open exchange of ideas with critical friends' has become a trademark of our international collaborations.

From the beginning, Tübingen's focus within this multilateral cooperation has been on strengthening international research collaboration, particularly in globally relevant areas of top-level research. The Matariki Network has also offered rich opportunities for both teaching and staff mobility, especially of doctoral/PhD students and early-career researchers, and this has led to many successful co-publications.

Following the selection of seven Matariki research themes in 2012, Professor Dr József Fortágh from the University of Tübingen took the lead on Quantum Science, with particular support from colleagues at Durham University (see also the report on page 38). A second important field of interest for Tübingen was Brain and Mind: Integrative Neuroscience (Otago Lead) – a topic central to our Cluster of Excellence CIN (Werner Reichardt Centre for Integrative Neuroscience) and has intensified our collaboration with the Universities of Uppsala and Otago (see also the report on page 30).

As early as 2011, the University of Tübingen developed an initiative for joint research and teaching within Matariki in Research Ethics. Activities started with a workshop in Tübingen organised by Professor Dr Urban Wiesing and Dr Hans-Jörg Ehni (Institute for the History and Ethics of Medicine). This was followed by: a second workshop at Durham in 2012; two spring/summer schools for PhD students and medical students from Matariki institutions and other universities in 2014 and 2015; and a conference organised by Queen's University's Bader International Study Centre (BISC) at Herstmonceux Castle in East Sussex (UK) in 2017. Tübingen University has also taken an active role in the benchmarking initiative of Matariki University Libraries and the annual Humanities Colloquia.

Graduate teaching initiatives are also an important part of Tübingen's contribution to Matariki activities. Since 2012, we have been offering an attractive, highly competitive funding programme to our Matariki partners

(and several other universities worldwide) funded by the German Excellence Strategy: the Teach@Tübingen Programme. So far, some 40 advanced PhD students and young postdocs from our Matariki partners have spent a teaching and research stay of one or two semesters in Tübingen. This successful teaching format has not only substantially increased Tübingen's offering of English-language courses in the humanities and natural sciences, but has also initiated several promising new collaborations between the researchers and research groups involved. A similar agenda is pursued by the Durham–Tübingen Seedcorn Fund, which supports several collaborative research projects each year, covering all areas of the life and natural sciences, the social sciences and the humanities.

The Matariki Network has also played an essential role in the development of our University's long-term strategy. The University's International Advisory Board with two members from Matariki universities (Professor Christopher F. Higgins from Durham and Professor Eva Åkesson from Uppsala) was a key factor in our successful re-application as a University of Excellence in 2019. As part of Tübingen's bid for continued federal funding as a University of Excellence, the University has re-launched its institutional strategy under the heading 'Open to New Challenges and a Global Scope of Action'. This highlights our intention to intensify global engagement in the coming years, fully in line with the Matariki slogan of 'Partnering for a better world'.

A programme of 'Global Awareness Education' for students and a research collaboration platform for the social sciences and humanities focused on 'Global Encounters' are part of this effort. This will open up new opportunities for collaboration within the Matariki Network, for example in the fields of Global Health (especially with a focus on collaboration with African countries); in the ongoing Global Citizenship Programme; and in strengthening our research impact with respect to sustainable development and the Sustainable Development Goals, for example Global Health, Clean Water, and Gender Equality.



Research and teaching collaborations already existing between individual researchers within the network have also visibly intensified and expanded. Matariki has given us all a strong impulse to initiate joint activities that would not have taken place to the same extent without the network.

Looking at the development of all these activities over the past ten years, it is clear why the MNU has been a great stroke of luck for the University of Tübingen. We very much look forward to further fruitful collaborations in the next decade, as well as continued international friendship.

Bernd Engler

President and Vice-Chancellor
University of Tübingen

Matariki Network Chair (2020-22)

Eva Åkesson

Vice Chancellor

Uppsala University, Sweden

Ten years ago, seven universities came together around a shared idea. The universities had identified significant similarities among themselves, but also interesting differences and strengths. Visions and goals, and perhaps above all the view of the university's role in society, were among the similarities. In addition, they were all well-established and among the most prominent in their own countries. Together, they had potential to enrich one another and achieve more than they could separately. Uppsala University was one of the seven, and when I took office as Vice-Chancellor one year later, I was happy to take my place in this group of university leaders to discuss the future and consider ways to move forward.

I do not think anyone at that time realised how important this initiative would turn out to be.

Matariki – the Māori term for the Pleiades, or Seven Sisters Constellation – has genuinely lived up to its name. Today, we trust each other and are in frequent contact. I personally have had a role at the University of Tübingen, and Vice-Chancellor Hayne of the University of Otago is involved at Uppsala as one of the members of our International Advisory Board, which assists the University Management. We have become one another's critical friends.

Having critical friends is vital in a world where the position of science is questioned and the autonomy of universities is under threat. By sharing our experiences and insights, we can develop more rapidly and make fewer mistakes.

One thing that is special about the Matariki Network is that it builds collaboration with whole universities. On the academic level, I am happy to mention the Global Citizenship Programme, for which Uppsala University was largely responsible, since we have particular expertise in that area; and the Humanities Network, which

has offered opportunities to share practice and to collaborate on joint projects – not least in Digital Humanities.

I am also proud of our Matariki Fellows, a programme that has provided funding to allow researchers, teachers and PhD students at Uppsala University to spend periods of up to six months at one of our Matariki partners; resulting in stronger bonds and continuing collaborations. Our sister universities, in turn, have assumed responsibility for other areas of collaboration and have invited our researchers and students to participate. It has been instructive and exciting for everyone involved.

Matariki collaboration includes research and education, but also at the administrative level. For example, we undertook a benchmarking exercise between network universities using the International Student Barometer, followed by sponsored staff exchanges to study the results – a successful and exciting joint initiative. Financial constraints can often be an obstacle to

participation at individual level. To counter this, we have all allocated funds to cover the costs of travel, accommodation, workshops and other expenses associated with meetings and short stays, as a way of encouraging cooperation and exchange. It is important to show that networks have a serious and significant function.

Not only I but everyone at Uppsala University has been made very welcome everywhere in the Matariki Network. The doors have been open and the reception warm. In our many meetings and discussions, there has always been a willingness to understand each other's point of view. One particularly obvious example of this was last year's conference in Tübingen on the topic of 'freedom of speech', where noticeable overlaps in our experience provided a platform to exchange ideas and expertise.

Matariki has made Uppsala a better university. One outstanding example of this is our highly regarded quality assurance and evaluation system, which could not have been achieved without the invaluable advice and input of our critical friends in the Matariki Network. In other ways too, our dialogues and community have generated ripple effects, with results that as yet we cannot wholly take in. Much of the success is due to the professional structure given to the network by its Secretariat, which has done a fantastic job over the years. I would like to thank everyone involved for ten years of constructive cooperation. The journey continues.



Eva Åkesson

Vice Chancellor
Uppsala University



Having critical friends is vital in a world where the position of science is questioned and the autonomy of universities is under threat.

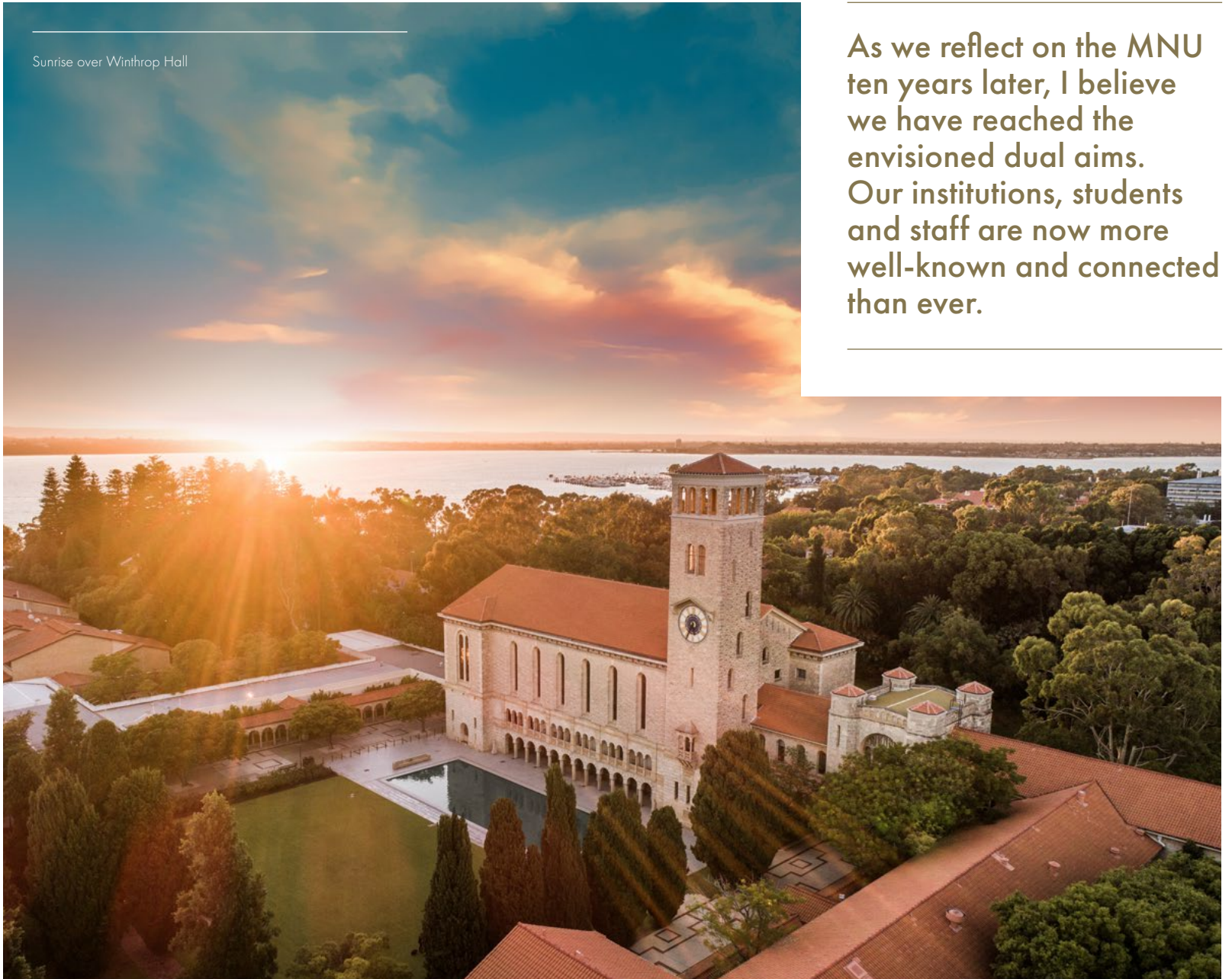
By sharing our experiences and insights, we can develop more rapidly and make fewer mistakes.



Professor Amit Chakma Vice-Chancellor University of Western Australia

Sunrise over Winthrop Hall

As we reflect on the MNU ten years later, I believe we have reached the envisioned dual aims. Our institutions, students and staff are now more well-known and connected than ever.



In 2010, UWA became a founding member of the Matariki Network of Universities (MNU), bringing to life the shared vision of former Vice-Chancellor Professor Alan Robson and the former Vice-Chancellor of the University of Otago, Professor Sir David Skegg. Together, they believed that creating a group of relatively small, non-capital-city, research-led institutions would not only increase our respective global profiles, but also enrich our students' and staff experiences through bespoke research and mobility opportunities. Together, the MNU partners reviewed our research, degree programmes, libraries and guilds, and developed programmes that leveraged our collective strengths. As we reflect on the MNU ten years later, I believe we have reached the envisioned dual aims. Our institutions, students and staff are now more well-known and better connected than ever.

From the beginning, UWA's primary focus in the MNU has been on developing collaborative modes of study that provide students with opportunities for innovative international experiences to make them fully-equipped graduates of the world. I am particularly proud of UWA's leadership and engagement in Matariki's two flagship mobility programmes: the Matariki Indigenous Student Mobility Programme (MISMP); and the Matariki Global Citizenship Programme (GCP).

UWA's involvement in the MISMP has been ably led by the Dean of the School of Indigenous Studies, Professor Jill Milroy, along with Professor Len Collard and Dr Elfie Shiosaki. Through a unique programme of intensive cross-cultural exchange, all participating universities have benefited from the facilitation of greater relationships with their local Indigenous groups. The connections made contribute to ongoing collaborations beyond the exchange visits themselves.

UWA's engagement in the GCP has been led by Dr Chantal Bourgault Du Coudray, former Academic Coordinator at the McCusker Centre for Citizenship. The Centre, created through a generous donation from the McCusker Charitable Foundation, aims to foster caring, connected and socially engaged citizens, who actively contribute to the wellbeing of

their communities. It was a particularly well-suited home to achieve the aims of the MNU Global Citizenship Programme. Today, the Global Citizenship Student Mobility Programme and the annual Global Citizenship Forum are cornerstones of the McCusker Centre's operations, enabling dozens of students to embark on meaningful internships and cross-cultural experiences.

On the research side, UWA has benefited from the rich quality of network partners. We have also been able to showcase the work of some of our finest researchers and our research infrastructure. In 2016, UWA was pleased to open the Indian Ocean Marine Research Centre, a purpose-built collaborative facility for marine science and ocean engineering research. It was a natural fit for UWA to lead the conceptualisation of the Oceans and Blue Economy research theme in 2017. Together, Professor Erika Techera (UWA Law School) and Professor Ryan Lowe (UWA Oceans Graduate School) hosted the first theme workshop at UWA addressing 'Marine Extremes' in December 2017, resulting in an edited book published by Routledge in February 2019. In December 2019, a second well-attended workshop was held at UWA, this time focusing on 'Energy and the Oceans'. In the same week, UWA was also pleased to host the Matariki Humanities Network meeting; the first in a series of new



meetings combining the academic and library streams. Attendees participated in three joint events, including a panel session exploring multidisciplinary approaches to ocean science and education.

Finally, we value the opportunity for our Higher Degree by Research students to participate in the first Matariki Network virtual Three Minute Thesis (3MT®) competition in 2019, and we were particularly pleased when one of our students won first place. This initiative allowed our students to gain confidence in their public speaking and raised their profile internationally.

With uncertain times ahead, we look forward to increased focus on virtual mobility and research opportunities among the Matariki membership.

Professor Amit Chakma

Vice-Chancellor
University of Western Australia



"I attended the Matariki Global Citizenship Forum in Durham, UK, in 2019. The theme of the conference was 'Empowering Learners', which implies a joint effort between students, faculty and institutions to provide the necessary support, spaces, mentorship and opportunities to empower and develop the next generation of global leaders and citizens.

The beauty of this Network, in an age where the world is getting smaller and smaller, is that it facilitates the process of making the global become locally tangible. For me, the Network has served as a breeding ground for ideas, methods and approaches that I have been able to capitalise on in my academic and professional worlds. It is a privilege to have been afforded a seat at the round table that is the Matariki Network and to collaborate with Matariki peers in working towards our mutually shared goals of building environments that foster empowered learning and global citizenship."



Q&A with **Sydney Kamen**

Dartmouth College | Student

"As well as coordinating general Matariki activities on campus, I was very fortunate to be part of the Otago contingent that attended the Global Citizenship Forum held at Durham University in 2019.

The visit provided me with a valuable opportunity to connect with my Matariki Coordinator counterparts from across the Network. Being able to put faces and names together, to spend time with people in both a personal and professional setting, has helped me to establish strong connections across the world. The discussions at the forum, between the students and staff, brought people together on common matters of global interest. I was really impressed with how well the students listened to each other and how well they shared information to learn about their differences and commonalities. There was no judgement – just open acceptance and understanding. This experience gave me confidence in our collective futures, because I witnessed our tamariki (young people) working together, to truly make the world a better place for everyone."



Q&A with **Chriss Hamilton**

University of Otago | Coordinator of International Partnerships; Matariki Coordinator

"As MNU Coordinator at Uppsala University, I have been engaged in many different kinds of Network activities. An important task has been internal support related to the meetings of the Executive Board, Research Group and International Leads. Other examples include disseminating MNU information at Uppsala, processing internal funding and organising meetings.

My involvement in the MNU supports contacts and collaborations between researchers and staff within the network. My hope is that this contributes to strengthening relations between Uppsala University and the other MNU universities. Being a Matariki Coordinator has deepened my understanding of the importance of international networks in order to develop top-quality research and education, but also as an arena to address more general issues relating to the role of universities in today 's world."



Q&A with **Torsten Blomkvist**

Uppsala University, Vice-Chancellor's Office | Analyst; Matariki Coordinator

Our Research Themes

Collaborative research conducted under the auspices of the Matariki Network is organised in seven main themes, each led by a different MNU partner.



Research Theme

Brain and Mind: Integrative Neuroscience

Lead Partner University of Otago

The Brain and Mind: Integrative Neuroscience theme was established in 2012, with the then Director of the Otago Brain Health Research Centre (BHRC), Professor Cliff Abraham, coordinating the theme. The University of Otago has a strong history of neuroscience research and world-famous researchers, including Nobel Prize winner Sir John Eccles. With the BHRC acting as a well-established coordinating body for this research at Otago, much of which complements the other strong integrative neuroscience activities across the Matariki Network, it was natural for Otago to volunteer to host the theme.



The first meeting of the theme, held in December 2014, brought together 20 researchers from all seven member universities for some exciting scientific exchanges and traditional New Zealand hospitality.

The second major networking event, held in 2018 at Otago and organised by Professor David Bilkey (Otago) and Associate Professor Ali Knott,



Visit to Ōtākou Marae

was the COmputation NeuroscieNce of Event CogniTion (CONNECT) workshop. This brought together more than 40 academics and students from around the world, including representatives from Tübingen, Uppsala, Queen's and Otago. The highlight were discussions around the development of avatar infant BabyX, which included a guest talk by Mark Sager, who is also notable for his work on the films Avatar and King Kong.

In April 2017, a Spring School on 'High Level Vision' was held at the University of Tübingen.

The Matariki Network has also provided the infrastructure and resources for many inter-university exchanges for both academic staff



and students. In addition to the conferences mentioned above, Otago has had Matariki-funded fellows visit from Uppsala in 2014 and 2015 (Professor Inger Sundström-Poromaa visited the Centre for Neuroendocrinology) and 2017 (Associate Professor Anna Erlandson visited the BHRC and Associate Professor Hughes' lab). Both of these visits have resulted in reciprocal visits from Otago to Uppsala (PhD student Aimee Chu and Associate Professor Joanna Williams) and subsequent collaborations.

Additional collaborations have been established with Tübingen (Professor Bilkey, Associate Professor Knott and Professor Martin Butz), Dartmouth College (Professor Cliff Abraham and Dr Alizreza Soltani) and the University of Western Australia (Professor Cliff Abraham, Associate Professor Jenny Rodger and Dr Alex Tang).

Otago looks forward to continuing working with Matariki universities, and plans to hold a lecture series in late 2020 and a (virtual) conference in 2021.



Research Theme

Cyber Security

Lead Partner Dartmouth College

After a brief hiatus owing to a change in personnel, the Matariki Network recommenced joint Cyber Security activities in May 2019, with the visit of V.S. Subrahmanian of Dartmouth College to Uppsala and Durham. During meetings in these two institutions, a core steering group – comprising Kristiaan Pelckmans of Uppsala, V.S. Subrahmanian of Dartmouth, and Julian Williams of Durham – was created, in order to move activities forward.

There have been several major activities under the Cyber Security theme since this initial visit. These include the formation of a joint consortium consisting of: Durham's Institute of Hazard, Risk and Resilience; Durham's Institute for Data Science; and Dartmouth's Institute for Security, Technology and Society. The aim is to lay the groundwork for joint data-intensive, science-based events.

Durham Professors Kiran Fernandes and Julian Williams visited Dartmouth in October 2019, to identify joint research opportunities and to discuss ways in which cyber security researchers at all Matariki institutions could come together to discuss possible joint research.

Dartmouth and Durham co-organised the Dartmouth–Durham Global Debate in Artificial Intelligence (AI) and Cyber Security at the Carnegie Institution of Washington (in Washington DC) on 11 December 2019. The event was intended to expose relevant cyber security research by Dartmouth and Durham to potential government organisations, and it attracted approximately 60 guests in total. In addition to lectures by Dartmouth and Durham University faculty, the programme included lectures by:

- Wayne Chung, former Chief Technology Officer of the FBI;
- Alex Kott, Chief Scientist of the US Army Research Lab;
- Ranjeev Mittu, Branch Head, Information Management and Decision Architectures, US Naval Research Laboratory.

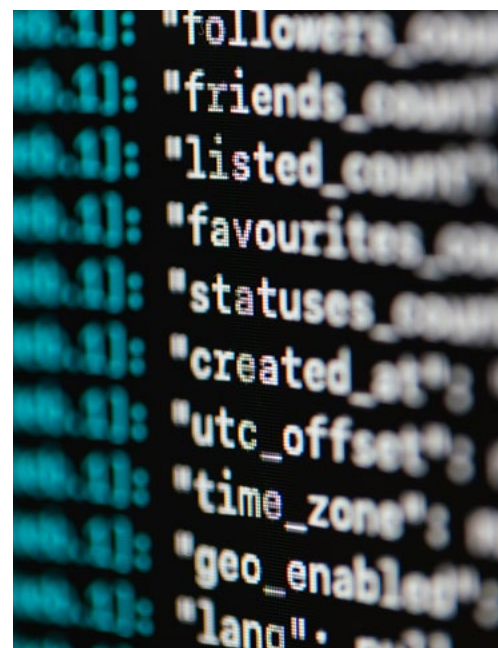
Dartmouth and Durham also co-organised the Dartmouth–Durham Global Debate in AI and Cyber Security at the New York Academy of Sciences on 13 December 2019. The event aimed to expose relevant cyber security research by Dartmouth and Durham to Wall Street. Lectures were given by:

- Deborah Snyder, former CISO of New York State;
- Charles Blauner, former Global Head of Information Security at Citi;
- Andrew Tanenbaum, Global Head of Cyber, Data, and Intellectual Property Legal at Barclays;
- Jay Leek, Managing Director, ClearSky Security.

A joint effort by Dartmouth, Durham and Uppsala culminated in the first Matariki Cyber Security Workshop, held at Dartmouth in December 2019. The event was attended by representatives from all Matariki institutions – in the case of Tübingen and Otago, participation was virtual, while all other institutions sent at least one representative.

The workshop led to the decision to set up four working groups:

- Artificial Intelligence (AI) group, led by Kristiaan Pelckmans of Uppsala;
- Optimisation and Game Theory group, led by Julian Williams of Durham;
- Internet of Things group, led by Chris McDonald of the University of Western Australia;
- Software Defined Networking group, led Michael Menth of Tübingen.



Plans were also made to bring Professor Carly Beckerman of Durham University to visit Dartmouth for a month in summer 2020 and for Durham University PhD student Xiangyu Wu to Dartmouth in autumn 2020. Both of these visits have been postponed due to the ongoing COVID-19 pandemic.

Plans were also made to organise another Matariki Cyber Security Workshop in August 2020 in Uppsala. However, due to the pandemic, this will now be a belated virtual event.

The Matariki research effort has already led to multiple proposals for funding, including a Durham–Dartmouth joint proposal to the Alan Turing Fellowship scheme and a UK Research and Innovation proposal entitled 'ESRC Centre for Pre-empting Societal Risks' to the UK's Economic and Social Research Council.

Though the COVID-19 pandemic has significantly affected the potential for in-person meetings between Matariki Network researchers, there are now concerted efforts to raise external funds for visits by Matariki Network researchers for the purposes of collaboration. In addition, there have been ongoing discussions between Matariki researchers on potential joint research projects.

Research Theme

Oceans and Blue Economy

Lead Partner University of Western Australia



Marine Extremes workshop, 2017



The Oceans and Blue Economy research theme was created in 2017, to explore multidisciplinary issues associated with human uses of the ocean and marine resources for food security, commerce, ecosystem services and socio-cultural wellbeing.

The Oceans and Blue Economy research theme was created in 2017, to explore multidisciplinary issues associated with human uses of the ocean and marine resources for food security,

commerce, ecosystem services and socio-cultural wellbeing.

The theme is led by UWA and by two UWA Oceans Institute members: Professor Erika Techera (UWA Law School) and Professor Ryan Lowe (UWA Oceans Graduate School).

The first theme workshop was held at UWA in December 2017, addressing 'Marine Extremes'. It brought together over 30 researchers from six Matariki partner universities presenting on multidisciplinary topics connected with safe oceans, healthy oceans and wealth from the oceans.

A significant output from the workshop was an edited book entitled *Marine Extremes*, published by Routledge in February 2019.

In December 2019, a second workshop was held at UWA – this time focusing on 'Energy

and the Oceans'. Presentations addressed: understanding coastal processes and ecosystems; extracting energy from the oceans; and historical and contemporary perspectives on oceans governance and the blue economy.

Again, the workshop was well attended, with four Matariki partner universities participating, as well as several other institutions. The researchers involved continue to work on outputs from the workshop, focusing on diverse areas such as coastal ecosystem services, energy flows, moving beyond panaceas, and unblocking wave power.

There are plans for a third workshop to be held at Queen's University, Canada, in 2021.

Marine Extremes conference, 2019



Research Theme

Peace and Conflict

Lead Partner Uppsala University

According to new data from the Uppsala Conflict Data Program, the world is seeing increasingly more armed conflicts, although a decrease in the number of battle-related deaths. Armed conflicts are also becoming more complex. For example, there is a record high number of internationalised intrastate conflicts – that is, conflicts where foreign powers have intervened militarily.¹

A cross-cutting research theme for all of our universities within the Matariki Network is Peace and Conflict. Clearly, issues of war and peace continue to be some of the most important issues that we are facing today. Research and teaching on peace and conflict have taken different shape at our universities, but interest in these important issues unites us. The study of peace and conflict is characterised by its multidisciplinary: such complex phenomena as war and peace need to be studied from several angles, in order to be fully understood.

During the years of the Matariki collaboration, the Peace and Conflict cluster has been a vibrant part of the network, establishing a set of collaborative ties between individual researchers as well as departments and programmes.

Uppsala University, with its Department of Peace and Conflict Research established back in 1971, has one of the longest continuous institutional histories of academic peace research among the MNU partners. With its world-leading data collection efforts, which continue to provide

the research community with updated data on armed conflicts and other forms of organised violence as well as on peacemaking efforts, the Department was a natural focal point to take a lead in coordinating the Matariki Network's efforts, although there has also been a mutual sharing of responsibilities and initiatives over the years.

Early on, the Department of Peace and Conflict Research convened joint Matariki workshops and meetings, and established bilateral collaboration. Especially important over the years has been institutional collaboration with the thriving research environment at the National Centre for Peace and Conflict Studies at Otago University. There are now a lot of interconnections between faculty, PhD candidates and students at various levels between our two environments, which have not only benefited from our joint research interests – for example in the study of non-violence – but have also experienced the healthy academic tension between the meeting of different scholarly approaches to the study of peace and

conflict. Uppsala University has funded Matariki Fellowships, several of which have been able to support longer stays in Otago by Uppsala faculty members.

Other important collaborations have been established between Uppsala and the University of Tübingen. Tübingen has one of the first Master's programmes in peace, conflict and international relations in Germany, and is now also giving this in English, broadening the potential for international exchange and interaction.

Durham University has organized Matariki-based research workshops relating to the study of violence in the context of cities.

One of the benefits of the Matariki collaboration lies in its flexibility. Within the Matariki framework, the member universities in the Peace and Conflict cluster have been able to create focused and continuous bilateral collaboration. But we have also been able to set up non-exclusive workshops and meetings on topical research themes, where Matariki members form the core group, but members from other universities and research centres (also from the Global South) can be included as well.

¹ Pettersson, T. and M. Öberg (2020). "Organized violence, 1989–2019." *Journal of peace research* 57(4): 597-613.

The study of peace and conflict is characterised by its multidisciplinary: such complex phenomena as war and peace need to be studied from several different angles, in order to be fully understood.



Research Theme

Quantum Science

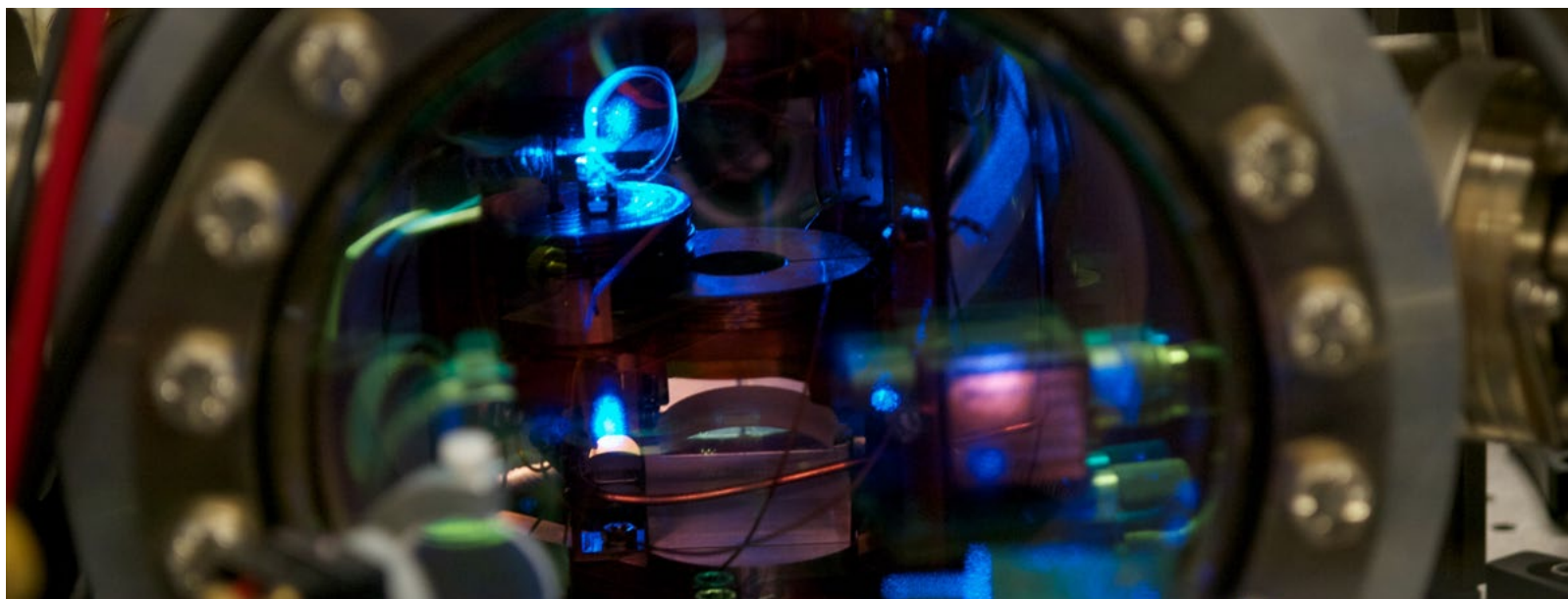
Lead Partner University of Tübingen

In 2012, Tübingen took the lead in the Matariki research theme Quantum Science. Quantum Science is one of the three key research areas of the Department of Physics at the University of Tübingen.

The Center for Quantum Science (CQS) at Tübingen, which involves more than ten research groups from physics and mathematics, is led by Professor Dr József Fortágh, who is also the leading academic in the Matariki Quantum Science research theme.

The CQS involves four European Research Council Advanced Research Grant holders and has been a member of German Collaborative Research Centres and numerous EU consortia. The CQS researchers keep in active contact with Matariki colleagues, especially from Durham and Otago, since these are two of its prime collaborators.

We organised our first research workshop in Quantum Science in Tübingen in July 2013, involving participants from five Matariki partners and additional external partners from Newcastle University, NTU Singapore, the Hungarian Academy of Sciences, and University of Stuttgart.



Otago organised the second workshop, in March 2016, in Dunedin. The key organiser was Dr Niels Kjaergaard (Co-director of the Quantum Science Centre at the University of Otago). Participants came from Durham, Queen's, UWA, Otago and Tübingen, with additional researchers once again joining from other institutions outside the network – from Australia, Singapore, Germany, the UK, India and the USA.

Researchers in the area of Atomic Physics and Quantum Optics at Tübingen (Professor J. Fortágh) and Durham (Dr M.P.A. Jones) have been in contact for many years, because of a significant overlap in scientific interests and complementarity in experimental techniques. This cooperation led to the successful EU research proposal HAIRS (Hybrid Architecture for quantum Information using Rydbergs and Superconductors), based on an idea born out of the Matariki Quantum Science Workshop in 2013.

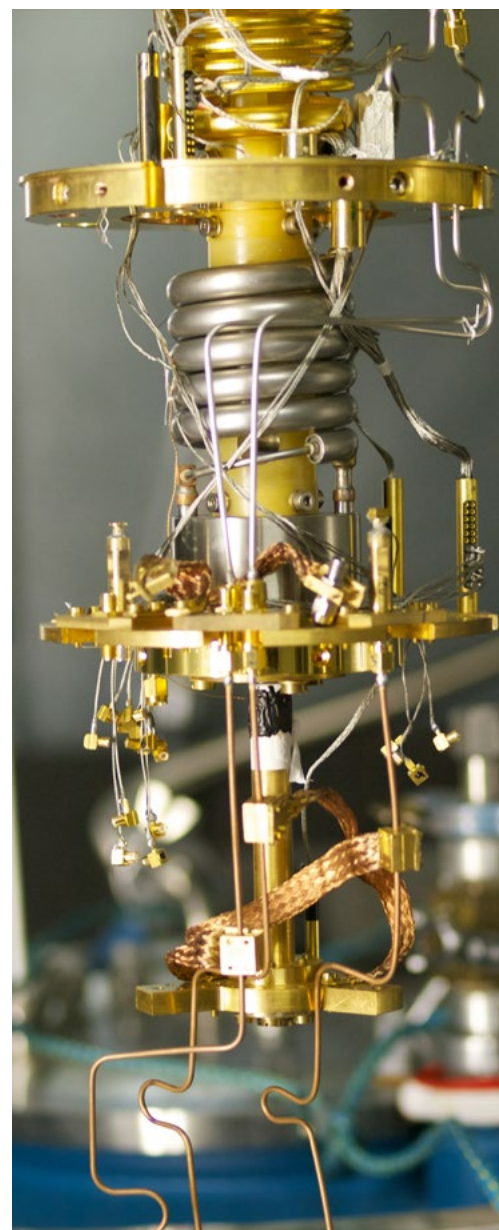
The goal of this project was to study the problem of coupling quantum states in atoms to solid-state quantum devices. The realisation of such a quantum interface represents a major breakthrough for information science, as it enables the development of powerful hybrid architecture for quantum information processing. The project has showcased a novel approach: on the one hand, by using the strong microwave transition between highly excited, atomic Rydberg states to achieve strong coupling to chip-based superconducting microwave cavities; and, on the other, by making use of the enormous interactions between Rydberg atoms for collective encoding of quantum information.

The HAIRS consortium (Durham, Tübingen, Orsay, Nottingham, Dresden) has published 64 articles in highly ranked journals, including 13 in Physical Review Letters, one in Physical Review X, two in Nature, two in Science, two in Nature Physics and two in Nature Communications. This consortium also involved other European experts, including Dr A. Browaeys (Institut d'Optique, Palaiseau), Professor I. Lesanovsky (Nottingham, now professor in Tübingen), and Dr T. Pohl (Dresden, now Professor in Aarhus).

The work performed in the framework of this project has led to around 70 conference invitations and multiple contributions at conferences.

In the near future, Tübingen is planning a Matariki Quantum Science Summer School. Due to the current COVID-19 situation, this has been postponed from 2020 to 2021. The Summer School is open to undergraduate students (both national and international) who have just finished, or are about to finish, their BSc degrees in Physics. The Summer School will have two lectures each morning and afternoon, with a special session to showcase research in the CQS in Tübingen and at the other Matariki partner institutions. We aim to attract up to 45 students. Lectures will be delivered by researchers from Tübingen, Durham, Nottingham and possibly other Matariki members (perhaps by virtual means).

The Matariki Network has really intensified the scientific exchange between Tübingen and Durham, and has led to numerous EU funding applications. Otago is also a strong partner in Quantum Science, with great scientific overlap and readiness for collaboration.



Research Theme

Risk Studies

Lead Partner Durham University



The Matariki Risk Humanities Network, which operated under the auspices of the Matariki Network of Universities (MNU) and Durham's Institute of Hazard, Risk and Resilience (IHRR) from 2015 to 2019, was established by Dr Marc Botha, to examine the ways in which the humanities are able to cast new light on the study of risk.



In particular, this theme of 'Risk Studies' sought to bring together researchers across the MNU in order to foster new ideas on risk, by drawing on the strong critical tradition of the humanities. These included examining not only risk itself, but also the ways in which risk emerges in close conversation with related ideas of contingency, fragility, vulnerability, precarity, crisis and threat – concepts which have risen to prominence in recent years.

In addition, the network aimed to publicise events related to risk research within the MNU, and to facilitate discussion that could lead to future collaboration (both in terms of co-publications and grant capture). To this end, it sought to foster research connections between individual researchers and between research centres and institutes within the MNU.

These included:

- Durham's IHRR and Institute for Medical Humanities;
- Durham's Open World Research Initiative (Dr Francisco-J. Hernández-Adrián);
- Tübingen's 'Threatened Orders' project (Professor Ewald Frie);
- 'Fictions of Threat' (Dr David Watson) and 'Engaging Vulnerabilities' (Professor Don Kulick), both based at Uppsala;
- The 'Digital Stereotypes' initiative (Professor Rob Cover) at the University of Western Australia.

The network was formally launched at an international conference, *Risking the Future: Vulnerability, Resistance, Hope*, held at Durham University in July 2016, which included participants from 17 universities and eight countries; including five members of the MNU. The conference included a blend of keynotes, individual papers and round-table discussions. This was followed by a two-day symposium in September 2017 on Vulnerabilities as part of the Durham IHRR's ten-year anniversary conference, which included participants from four MNU partners, with Uppsala's Don Kulick as a keynote speaker.

Apart from fostering ongoing collaboration between individuals and projects, the initiative also gave rise to a special issue of leading literary journal *Textual Practice* on 'Fiction in the Age of Risk' (edited by Tony Hughes-d'Aeth and Golnar Nabizadeh of UWA). Collaboration between numerous individual researchers who were connected through the network is ongoing, and several MNU research centres and institutes remain in close dialogue.

While the valuable work of the Risk Studies theme will continue to be encouraged and recognised by the network, researchers at Durham are now looking forward to leading on a new research theme of Global Health, leveraging world-leading research across the network in the spirit of Matariki's motto, 'Partnering for a better world'.

Research Theme

Sustainability, Environment and Resources

Lead Partner Queen's University

The theme Sustainability, Environment and Resources brings together research strengths from across Queen's University and expresses a deep commitment to building a sustainable world. The inaugural research theme, Energy, Resources and Environment, was reframed in 2018, to highlight sustainability goals more directly and to better reflect one of the pillars of the Queen's Strategic Research Plan (2018).

Sarah Fliskowski



Fig 1 Dr. Kerry Rowe and his team install a liner at the Queen's University Environmental Liner Test Site in Godfrey, Ontario



Fig 2 Dr. Myra Hird (Canada's Waste Flow Project). Microplastics: Tiny particles, Big Issue



Fig 3 Nature's Van Gogh – Researching algae blooms

Professor Ryan Mulligan describes the value of the Matariki Network thus: “I’ve attended two Matariki Network workshops on ‘Marine Extremes’ and ‘Energy and the Oceans’ at the University of Western Australia, and both have been highly productive, collaborative and inspiring events. The Matariki Network is a great way of working together with our international partners to achieve high-level research that addresses global problems.”

Researchers from across the University tackle different strands of our research theme – from the interdisciplinary research of the Beatty Water Research Centre (BWRC) on water governance, water use, water resources and water quality, to the GeoEngineering Centre and its award-winning investigation of better methods for protecting the environment from contamination by waste (Figure 1).

Canada's Waste Flow Project develops research on different aspects of waste management, including international public policy initiatives and, most recently, research on microplastics. Additionally, research of lake sediments to understand the long history of the environment provides a baseline upon which we can assess

future environmental damage or repair.

Scholarship on renewable energy development also addresses how we generate and use energy, if we are to flourish in a carbon-constrained future.

Faculty exchange, workshops and joint publications point to the strong collaboration between Matariki partners in this research theme. A workshop on renewable energy brought researchers from across the MNU to Queen's in 2010. Queen's researchers Mulligan and Boegman have been working closely with colleagues at UWA's Ocean Institute, presenting their work and sharing data and research facilities. Both researchers highlight the Matariki connection as a catalyst for their research; from data-sharing,

modelling, co-publications and connections to alumni in industry. UWA Dr Matt Hipsey presented a keynote lecture on algae bloom at the BWRC Annual Research Symposium in 2019.

In addition to co-publications with Matariki partners – especially with UWA and Otago on ecology; with Dartmouth on freshwater lakes; and with UWA and Durham on astrophysics – Queen's and Dartmouth have recently provided seedcorn funding to a research project on water de-salinification.

We thereby bring a renewed focus and energy to our Matariki theme. We look forward to hosting, with the BWRC and in conjunction with UWA's Ocean Institute, a workshop in July 2021 (a COVID-related postponed event from July 2020). Queen's is engaging early career researchers who work on Sustainability, Environment and Resources in knowing more about research collaborations within the MNU. We assembled a panel discussion with colleagues at Queen's who had participated in Matariki events as an introduction to the MNU for early-career researchers.

As we celebrate the tenth anniversary of the MNU, we see potential, too, for more explicit connection of our research theme with the UN Sustainability Development Goals in the years ahead.

"Together with the Rector and a small group of Professors, I visited Uppsala University in 2016. We had wonderful meetings with lots of great scientists! More importantly, this visit was essentially the starting point for my collaboration with several scientists from Uppsala; most notably, Professor Sundström Poromaa."

Following my visit to Uppsala in 2016, an extensive collaboration with scientists from Uppsala University started. We have published book chapters and scientific manuscripts together. We were also successful in securing funding for a Mini-International Research Training Group (IRTG) in 2017 on 'Pregnancy and the Brain', and are currently supervising several PhD candidates together. In June 2020, the funding for the Mini-IRTG ceased, so we will now submit a proposal for a full IRTG to the German Research Foundation. As a scientist, I have gained a lot from this intense exchange with Uppsala, and believe that our joint research efforts are increasingly visible internationally. Personally, I thoroughly enjoy collaborating with colleagues from Uppsala University. There are lots of commonalities between us. As a female scientist, I get a lot of inspiration and support from my female Swedish colleagues, which I really appreciate and value!"



Q&A with **Birgit Derntl**

University of Tübingen | Full Professor, Department of Psychiatry and Psychotherapy; Head, Innovative Neuroimaging in Psychiatry

"My involvement in the MISMP provided valuable professional experience in helping organise and plan an international educational programme. I was able to make both academic and personal relationships with Indigenous leaders around the world, greatly increasing my knowledge of these places. This experience also provided numerous collaborative opportunities to work with a variety of people and departments around campus, in developing an innovative educational trip. This professional development is invaluable to my own learning as a graduate student in Education. On a personal level, this programme was the best Indigenous learning that I have experienced, and has deeply impacted my own thinking and identity as a mixed Indigenous-Settler person."



Q&A with **Jackson Pind**

Queen's University | Graduate Student and Programme Developer

Research

Celebrating a decade of black hole scientific conferences with the Matariki Network

Contributed by David Alexander (Durham University)
and Ryan Hickox (Dartmouth College)

Over the last decade, we have created a series of scientific conferences focused on the growth of black holes, supported by the Matariki Network of Universities.

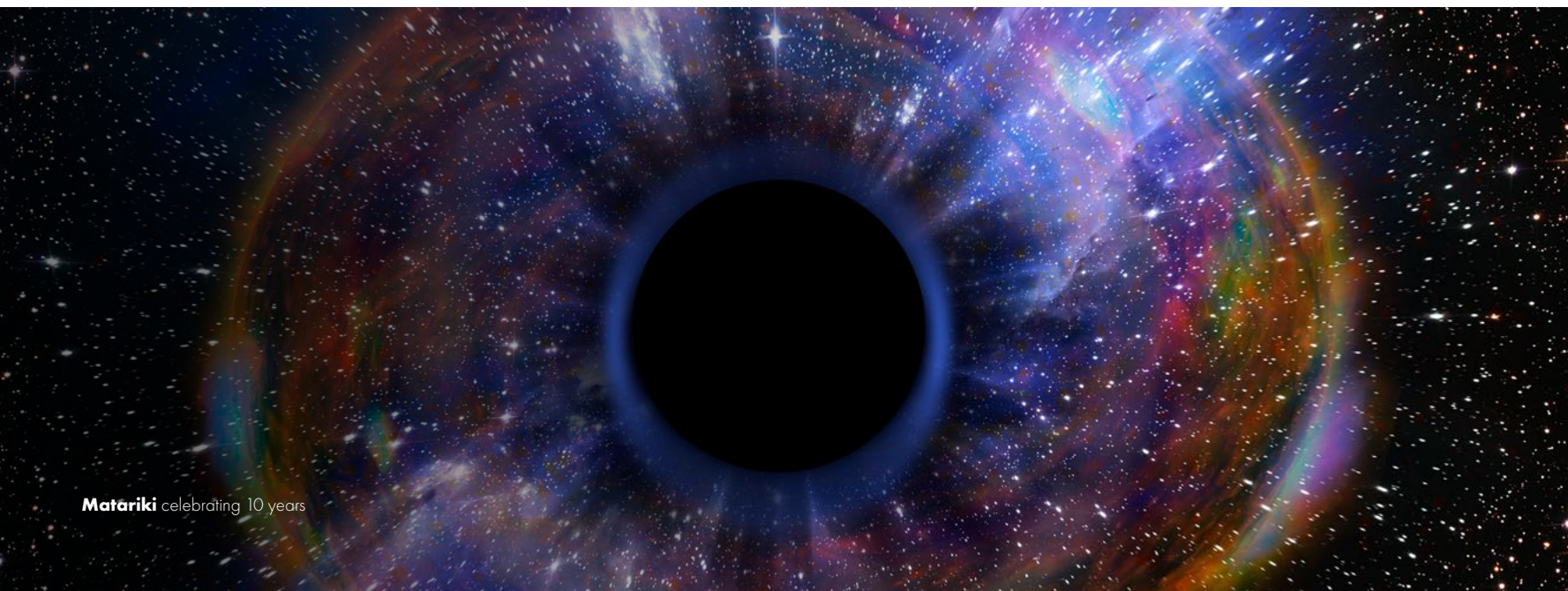
Black holes are extreme astronomical objects with such strong gravity that even light cannot escape

from them, and almost every galaxy like our Milky Way has a huge black hole at its centre. As scientists, we are fascinated by where these black holes come from, and how they are connected to their galaxies. With the support of the MNU, our conferences have explored this question over the past ten years.

Our first meeting, 'What drives the growth of black holes?', was hosted at Durham in 2010, the year the MNU was founded. At the time, we were both based at Durham, but with Ryan moving to a faculty position at Durham's MNU partner

Dartmouth, we decided to expand our first meeting to a series that alternates between Durham and Dartmouth every two years. It was natural to associate these events with the MNU with the key objectives of fostering scientific collaboration, enhancing the visibility of the scientific research at both institutions, and providing global awareness of the MNU.

'What drives the growth of black holes?' was the first major scientific event we had organised. It was a great success, with over 100 participants from around the world. However, we were faced



Conference dinner at Durham Castle, 2018



Hiking up Mount Cardigan, Dartmouth 2016



with a unique challenge, due to the eruption of the Icelandic volcano Eyjafjallajökull, which shut down European air travel for several weeks on the original dates in April 2010. Organising any large scientific conference is already challenging, but organising your first conference while working around a nearby volcano doesn't make the task any easier! Ultimately, we had to make a last-minute decision to reschedule the whole conference to later in the year, but thankfully almost all of the participants were able to attend the rescheduled meeting.

A decade later, we have now hosted five conferences on black holes. Each conference has attracted about 100 participants from a total of 28 countries, with a near even male/female gender balance. We have experimented with different approaches, to try to fully engage all participants, including polling everyone before the meeting to gauge current scientific opinions and using active polling devices, so that everyone can contribute to the discussion. We provide long coffee breaks and encourage participants to stay in college accommodation, to allow for spontaneous discussion. We also always set aside an afternoon for a social event, such as a hike along Hadrian's Wall or among the rocky hills of western New Hampshire.

A key focus of our conferences has been legacy. One way is through strong branding: we design a unique poster and a custom mug, reflecting the general scientific theme, but utilising a distinct style. For the 2016 Dartmouth conference poster on 'Hidden Monsters', we used a B-movie horror theme, while the 2018 Durham conference poster on 'Are AGN special?' was inspired by The Restaurant at the End of the Universe by Douglas Adams.

We have also used the insights gained from these meetings as the basis for major review articles: in 2012 (Alexander and Hickox, *New Astronomy Reviews*) on 'What drives the growth of black holes?', inspired by our first conference; and in 2018 (Hickox and Alexander, *Annual Review of Astronomy and Astrophysics*) on 'Obscured AGN', motivated by 'Hidden Monsters'.

To celebrate the tenth birthday of black hole meetings and of the MNU, we had been planning to host a special 2020 conference in Iceland, in order to face Eyjafjallajökull on its own ground! Of course, nature has raised an even greater challenge for this year, with the COVID-19 pandemic. So, as of now, our decadal celebrations have temporarily been put

on ice (pun fully intended) and our conference has moved to 2021.

While rescheduling a major scientific conference is not something that you would ever want to do, for us this is well-trodden ground and, in some respects, we wouldn't have wanted it any other way! The plan for this meeting is to review the progress made over the last decade on 'What drives the growth of black holes?' and to write an updated review article focusing on how our understanding of black holes has developed over ten years.

Looking forward, we hope to host another decade of scientific conferences, just as we hope for another decade of the MNU.



The Matariki Humanities Network



Tübingen, 2017

The Matariki Humanities Network was formed at a meeting of the seven partners at Dartmouth College in 2013, with the objective of building networking capacity and reaffirming the key role that the humanities play at the heart of MNU institutions.

Composed of a Faculty Stream and a Library Stream, a first cycle of network meetings were designed to:

- Share insights about the current state of specific disciplines;
- Make connections with other specialists;
- Examine the resources and best practices at other MNU institutions;
- Advance cutting-edge scholarship in the humanities.

The meetings – referred to as ‘colloquia’ – each had an assigned theme: Medieval/Early Modern (Otago, 2014); Study of Religions (Queen’s, 2015); Literatures (Durham, 2016); Languages (Tübingen, 2017); and Humanities (Uppsala, 2018).

The Faculty Stream was organised in three strands, allowing the partners to share their activities in order to find areas of common interest and possible collaborations. At each colloquium, the partners presented on: the current state of the assigned theme at their university; a specific and ongoing research project within that theme; and how research-informed teaching is generated within that theme.

The Library Stream loosely aligned with the Faculty Stream and, in addition to sharing practice at annual meetings, undertook a number of benchmarking studies aimed at sharing and improving services.

Durham, 2016



Exhibition welcome at Lawrence Wilson Art Gallery (UWA) during 2019 forum



Queen's 2015



Otago Library Window
(courtesy of University of Otago image library)



Rewarding collaborative projects

The Humanities Network has been successful in its aim to promote international excellence in research and education. The concrete outcomes in its first years of existence include collaborations and exchange of staff as well as resources in education, research and library collections.

The benchmarking studies in the Library Stream resulted in the formation of strong partnerships and collaboration, with much of this work being undertaken outside and between the annual meetings. Topics included: first-year student transition; provision of library space to support student experience; library support for research; and communicating impact. Benchmarking among the libraries has allowed each of the partners to set individual institutional performance in an international context and has helped to identify areas of strength and weakness.

Identification of best practices among the group has augmented quality assurance processes and

highlighted areas for potential improvement. In a climate of competition for local and national resources, sharing on an international level has demonstrated the potential of the network for harnessing collaborative activity.

One of the most significant focus areas for the Library Stream has been the 'Open Matariki' theme, which has explored changes in scholarly publishing, including open access, unbundling the big deal, transformative agreements, and flipping the subscription model. A significant research project led by Otago and UWA, involving all partners, investigated whether there were enough funds in the scholarly communication system to transition to open access. The findings of this research project were shared via international conferences and journal articles, and have helped to inform the sector's approach to publisher negotiations for open access. Other library collaborations have included many staff exchanges and visits between the partners.

In addition, there have been several small-scale teaching collaborations between constellations of partners. They all stem from ideas and designs that have emerged from the annual colloquia. One example is the Master's and postgraduate course 'Things That Matter: Material Studies In/For the Digital Age', a collaboration between Uppsala and Durham. The first edition of the course was held in 2018, and again in 2019 and 2020. Here, the Matariki Humanities Network successfully merged with the U4 network, bringing Rijksuniversiteit Groningen (the Netherlands) on board. The course seeks to raise awareness about the need for digital literacy in humanities research, and to address the many challenges posed by the ongoing digital revolution, alongside the opportunities it has created. Annually, the course has attracted 10–15 students.

In terms of research, there have been several equally rewarding collaborative projects. Since 2018, the history departments at Uppsala and Tübingen have run a Matariki Faculty staff-exchange programme (funded primarily by Erasmus). So far, 11 researchers have participated in the exchange. The European partners have also organised a series of joint advanced and postgraduate-level research workshops, in Tübingen in 2017 and Durham in 2018.

Furthermore, the Matariki Fellows programme run by Uppsala, in which seven researchers annually are sent to partner universities, has included several scholars from the humanities, effectively contributing to global research networks and joint projects.

Mapping the humanities

UWA Humanities forum, 2019

Since the start, the Humanities Network has been equally successful in developing and adapting itself to achieve productive forms of working. Most prominently, the two streams – Faculty and Library – have merged. Whereas previously they worked as two essentially separate streams, they have increasingly worked jointly on common issues in relation to research and education resources. An increase in joint sessions at the meetings – as well as in collaborations between meetings – reflects this change. This, in turn, has resulted in a visibly increased focus on issues of common interest at institutional level.

Alongside presentations on research and collection profiles, the two streams have increasingly merged on projects that aim to align partner organisation and activities. These include sharing resources, organising and designing teaching modules, identifying and approaching sources of research funding, and making the humanities present within the academy as well as in society beyond the academy.

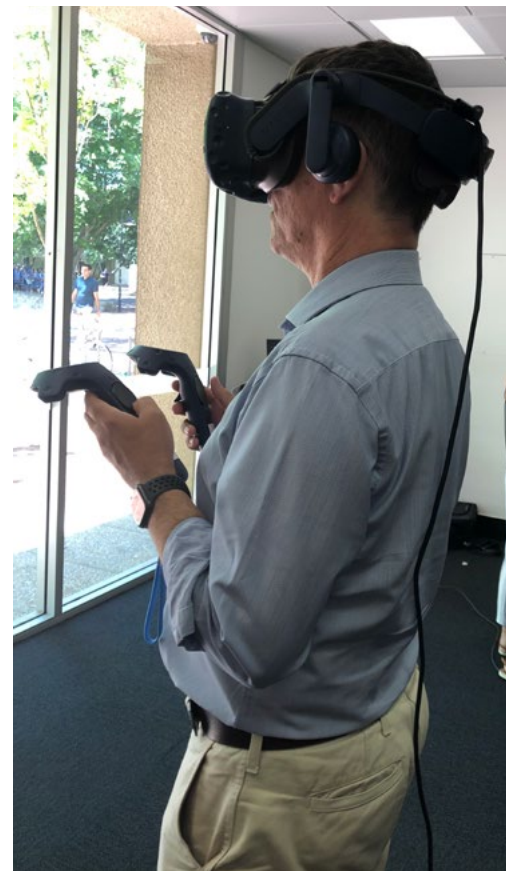
As the first round of meetings ended in Uppsala 2018, past experiences and future visions were brought together into a design for the continued work. The overall aim of the Humanities Network is unchanged: to promote excellence in research and education. Faculty and Library will engage jointly in more continuous and strategic work, to strengthen the humanities in and beyond academia. Within the overarching theme 'Mapping the Humanities', the Humanities Network will focus on the relevance and role of the humanities in today's changing world.

This will include external communication of the public values of the humanities in a global and increasingly digital world, as well as internal

The overall aim of the Humanities Network is unchanged: to promote excellence in research and education.

work to address common challenges and to improve institutional infrastructure, in order to enable excellence in research and education, and to maximise the use of resources and collections in terms of costs and outcomes.

Virtual reality demo at UWA 2019



Otago, 2014



The vigour of the Humanities Network was immediately made apparent as the new cycle of meetings began at UWA in 2019. With the chosen theme 'Digital Humanities', the partners met in a series of sessions to share experiences and discuss the possibilities and challenges posed by the ongoing digital revolution in the humanities. Four joint projects were launched – all aiming at strengthening the humanities in and beyond academia:

- Mapping the transformation of the humanities: This project builds on the benchmarking and sharing of data that has occurred to date, to create an output that explores the move from debating the 'value' of humanities to understanding humanities in operation on a global scale and in local cases. The final output is still to be determined, as a published book may not have the most impact if it is to appeal to prospective humanities scholars.
- Virtual exhibitions: This project will develop a series of virtual exhibitions, consisting of objects from the cultural heritage collections of the partner universities, and providing historical contexts for relevant themes of the day (such as Pandemics, Democracy, Migration). The target group is the public outside academia: schools, libraries, social communities (from churches and youth centres to individual households), and the aim is to raise awareness of the value of the humanities in understanding the present.
- Machine learning and transcription: This project involves a cross-institutional survey of transcription practices and tools used by scholars and librarians, in order to share knowledge and experiences and to reduce the time commitment involved in evaluating new tools. There will be a particular emphasis on optical character recognition of handwritten documents and crowdsourcing. The output may be a document, either circulated internally or published on a public webpage.

Uppsala, 2018



- The Matariki guide to digital humanities skills: This project recognises the work occurring across many Matariki partner institutions around staff upskilling and digital humanities curriculum development. The project will provide an opportunity for partners to share experiences and collaboratively develop materials and a resource page that presents case studies and recommended resources or tools for particular digital humanities methods, such as web scripting, data analysis, data visualisation and visual storytelling.

The cycle of annual meetings with the seven partners (and the continued work of initiating, evaluating and implementing joint projects) is set to continue. Due to the 2020 pandemic, the planned meeting at Dartmouth, on the theme of Academic Publishing, had to be postponed until 2021. Meanwhile, the Humanities Network activities have continued unabated on online platforms and through other media.

Simple innovation has come from unexpected places. During a tour of our campus some Library partners noted the regular placement of a consultation shelf as a common feature across the University Otago Library system. Situated in the middle of a series of double sided ranges of shelves this placement allows for light to spill through the range of shelves, providing a purposeful workspace and offering library users a sense of place and perspective. This straightforward feature is now replicated in partner Libraries where it referred to as the 'Otago window'.

"I have been the coordinator for the Faculty Stream of the Matariki Humanities Network at Uppsala University since 2014, and in autumn 2018 I was a Matariki Fellow at Durham University.

The Matariki Humanities Network has been immensely important and rewarding for me in my academic work. Among the many excellent Matariki collaborations I have engaged in, and the many Matariki colleagues that I have made contact with, the most rewarding work for me personally has been the merger of the Library and Faculty streams within the Humanities Network. As librarians and academics across the seven sisters have joined hands, the many concrete benefits of collaborations between academic teaching and research, and university collections and cultural heritage have made a deep and lasting impression on me and how I go about my daily work in academia."



Q&A with **Mikael Alm**

Uppsala University | Associate Professor/Senior Lecturer, Department of History

Matariki Network Co-publications



In order to keep track of researchers publishing together across the MNU, the network began tracking its co-publication activity in 2011, with the help of online databases such as Web of Science.

While this data is a general indication of positive progress between network partners, it is acknowledged that publication output can differ greatly between different subject areas and that it can sometimes be difficult to track humanities and social sciences publications reliably in this way.

Table 1. Total number of network co-publications, 2011–20

2011–14	589
2015–17	783
2018–20	786
(NB: 2020 data is still incomplete)	
Total	2,158

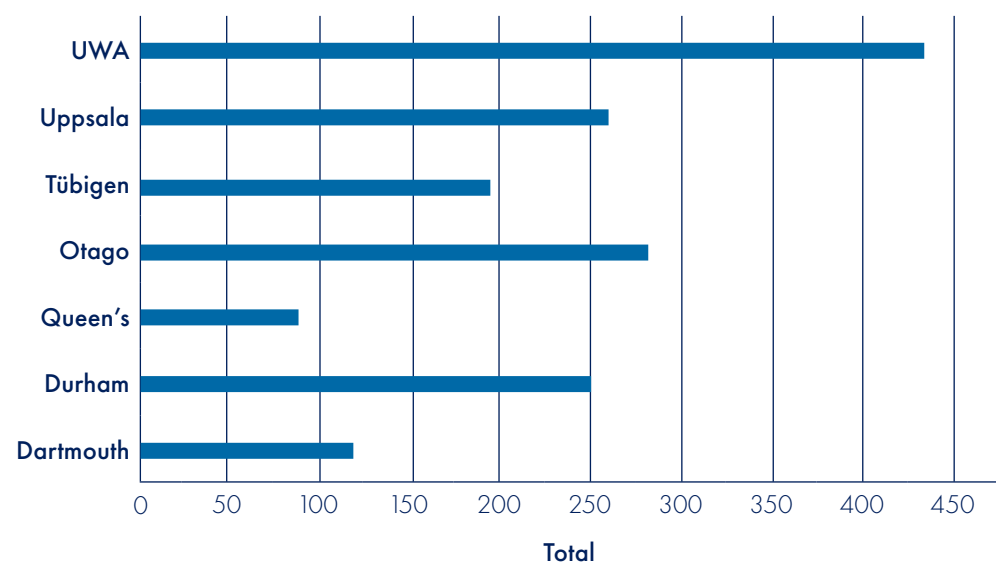
(Data prepared and processed by Per Ahlgren and Leif Eriksson of Uppsala University)

Number of co-publications (2015–17)

Between 2015 and 2017, there were 783 unique co-publications produced between Matariki partners.

In Figure 1 (and in the right-hand column of Table 2), the total number of co-publications by university is given. The University of Western Australia has the highest number of publications co-published with other Matariki universities during this period (432 publications), followed by the University of Otago and Uppsala University (283 and 257 publications, respectively).

Figure 1. Total co-publications within the Matariki Network by university, 2015–17



In Table 2, where the pairwise numbers of co-publications are reported, we find the most extensive co-publishing activity for UWA with the University of Otago and Durham University, respectively.

Table 2. Number of co-publications for each university pair in the Matariki Network, 2015–17 NB: The row sums across the universities are greater than the value shown in the 'Total' column above. This is due to publications that are co-published between three or more of the involved universities."

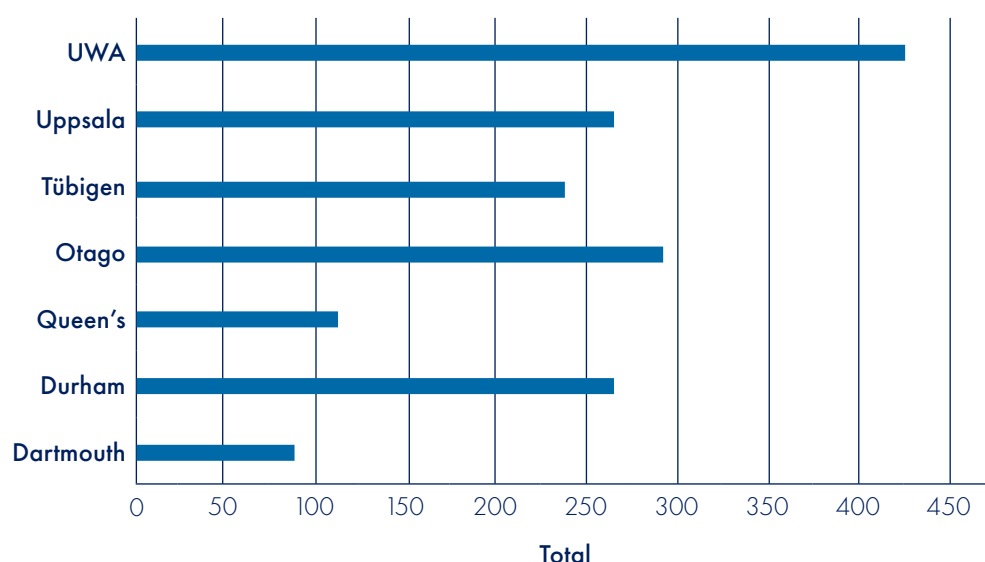
University	Dartmouth	Durham	Queen's	Otago	Tübingen	Uppsala	UWA	Total <small>(unique co-publications)</small>
Dartmouth		27	16	28	14	35	32	117
Durham	27		8	27	30	32	37	250
Queen's	16	8		13	16	19	22	85
Otago	28	27	13		28	64	163	283
Tübingen	14	30	16	28		69	50	196
Uppsala	35	32	19	64	69		86	257
UWA	32	128	22	163	50	86		432

Number of co-publications (2018–20)

Between 2018 and 2020, there were 786 unique co-publications produced between Matariki partners (NB: figures for 2020 are still incomplete).

In Figure 2 (and in the right-hand column of Table 3), the total number of co-publications per university is given. During this period, UWA once again has the highest number of co-publications with network partners (425), followed by Uppsala and Tübingen (269 and 238, respectively).

Figure 2. Total co-publications within the Matariki Network by university, 2018–20



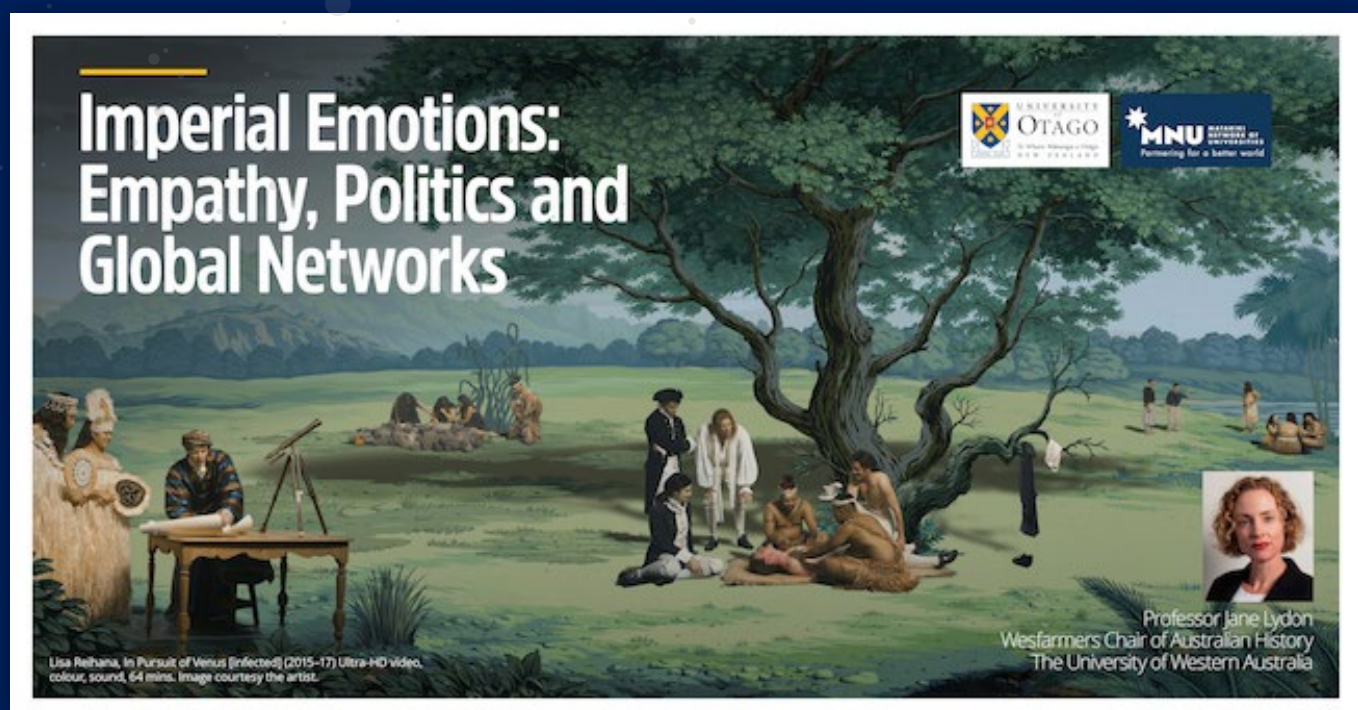
Network partners are currently in the process of analysing a more detailed breakdown of individual subject areas, in order to work out the level of association between the co-publications being produced and the Matariki Network's seven research themes. They are also in discussion about how best to improve the comprehensiveness of the data, to reliably include publications from all disciplines.

In Table 3, where the pairwise number of co-publications are reported, we find the most extensive co-publishing activity for UWA with University of Otago and Uppsala University, respectively.

Table 3. Number of co-publications for each university pair in the Matariki Network, 2018–20.
NB: The row sums across the universities are greater than the value shown in the 'Total' column above. This is due to publications that are co-published between three or more of the involved universities."

University	Dartmouth	Durham	Queen's	Otago	Tübingen	Uppsala	UWA	Total (unique co-publications)
Dartmouth		14	11	19	13	24	19	83
Durham	14		20	24	47	32	94	219
Queen's	11	20		25	25	23	36	108
Otago	19	24	25		42	53	152	288
Tübingen	13	47	25	42		82	70	238
Uppsala	24	32	23	53	82		98	269
UWA	19	94	36	152	70	98		425

Matariki Lecture Series



Back in 2017, the Matariki Network launched a new annual Matariki Lecture initiative. So far, the lecture has been hosted each year by a different member institution on a rotating basis. Each time, the speaker has been a faculty or staff member of a Matariki partner institution other than the host institution. The topic, while not limited to the seven MNU research themes (see page 29), has typically helped to advance one of these themes.

The inaugural Matariki Lecture was given at Queen's in 2017 by Professor Denise Anthony, (Vice-Provost for Academic Initiatives and Professor and Past Chair, Department of Sociology, Dartmouth College), on the topic of 'Big Data, Cyber Security and Healthcare'. The lecture was streamed live and a recording was added to YouTube.

The following year, the Matariki Lecture took place at Tübingen University. It was delivered by Professor Alex Densmore of Durham University and was called 'The Use of Science in Earthquake Risk Reduction: Lessons from the 2015 Nepal earthquake'. The lecture was attended by around 75 people and was also recorded and published to the Matariki YouTube channel. While in Tübingen, Professor Densmore also interacted with students from the Department of Geology and Geodynamics at Tübingen University.

The 2019 Matariki Lecture was delivered by Professor Jane Lydon (UWA) at the University of Otago. The lecture, titled 'Imperial Emotions: Empathy, politics and global networks', attracted a very diverse audience – both in situ and via the live webstream. Professor Lydon holds the Wesfarmers Chair in Australian History in the School of Humanities at UWA. She is a leading expert on Australia's colonial past and its legacies in the present. Her research examines the ways in which popular culture – and especially visual culture – has shaped ideas and debates about race, identity and culture that persist today.

The 2020 Matariki Lecture was due to be delivered by Professor Ehmke Pohl of Durham at Uppsala University. The lecture, entitled 'Virus-X: Exploring the structural and functional diversity of the Virosphere', unfortunately had to be postponed following the outbreak of COVID-19, although it is hoped that this can be rescheduled in the near future.

The original idea behind the series was to showcase themes that advance the teaching and research enterprise of the host university and, by extension, those of all partner institutions of the Matariki Network. The Matariki Executive recently voted to build on this concept, by developing a more regular series of lectures; with several presentations being delivered over a shorter period of time attached to the same broad theme. Where possible, each series will be made up of individual lectures given by faculty members from different partner institutions.

Due to travel restrictions relating to the COVID-19 pandemic, lectures will currently have to be in virtual format. Recording links will be shared both within the network and beyond, and synchronous panel sessions will be arranged at the end of each series, to allow real-time research discussions. It is hoped that this new format will highlight some of the pioneering, world-leading research being carried out within the network and will also increase the global visibility of Matariki.



2017 Matariki Lecture poster

Student Mobility within the Matariki Network

Since the network first began, partners have worked together closely to facilitate academic student exchanges within the network. Over time, many institutions have created formal exchange agreements to enable this to happen more easily.

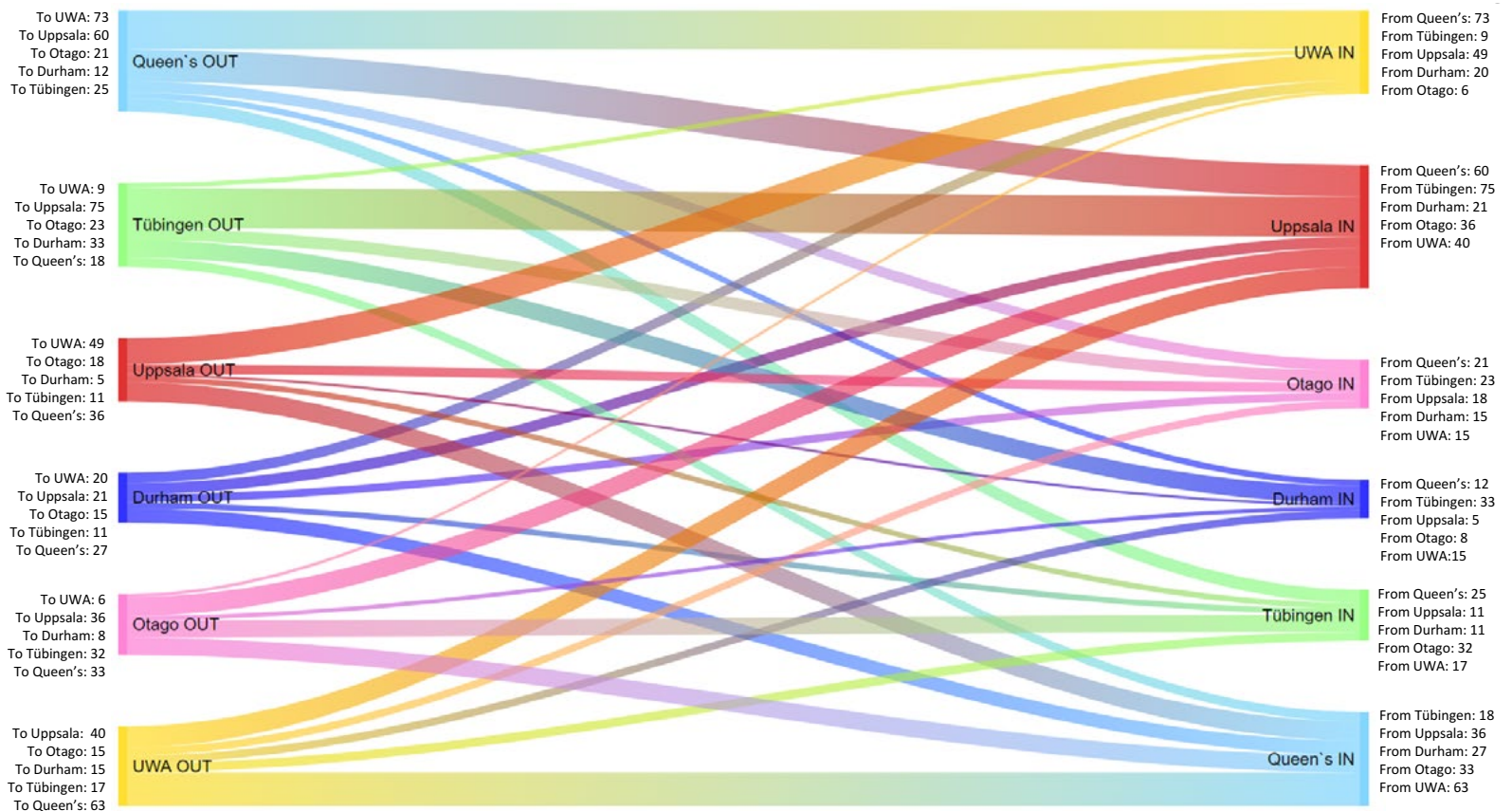
The Student Mobility Working Group was formed in 2012 to deal with relevant issues within this remit. It comprises colleagues representing Student Exchange/Study Abroad offices. It is responsible for monitoring and evaluating the level of student exchanges within the network, and for suggesting ways to increase engagement and uptake across all partners. The group meets every year, usually coinciding with international student mobility events already attended by members of the group.

The following charts show the mobility flows between partners, since official records began in 2013.

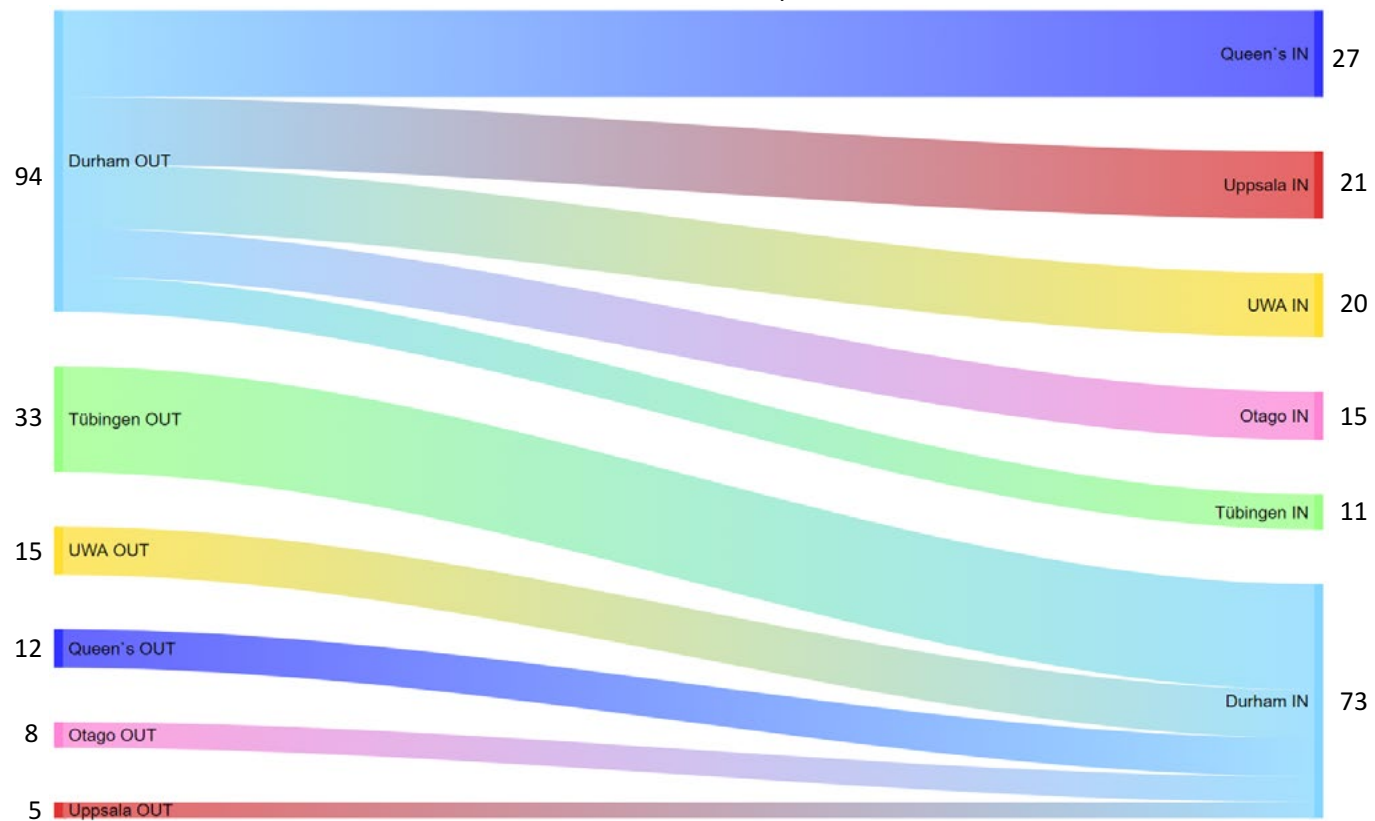
Outgoing

Matariki Student Exchange, 2013-2020

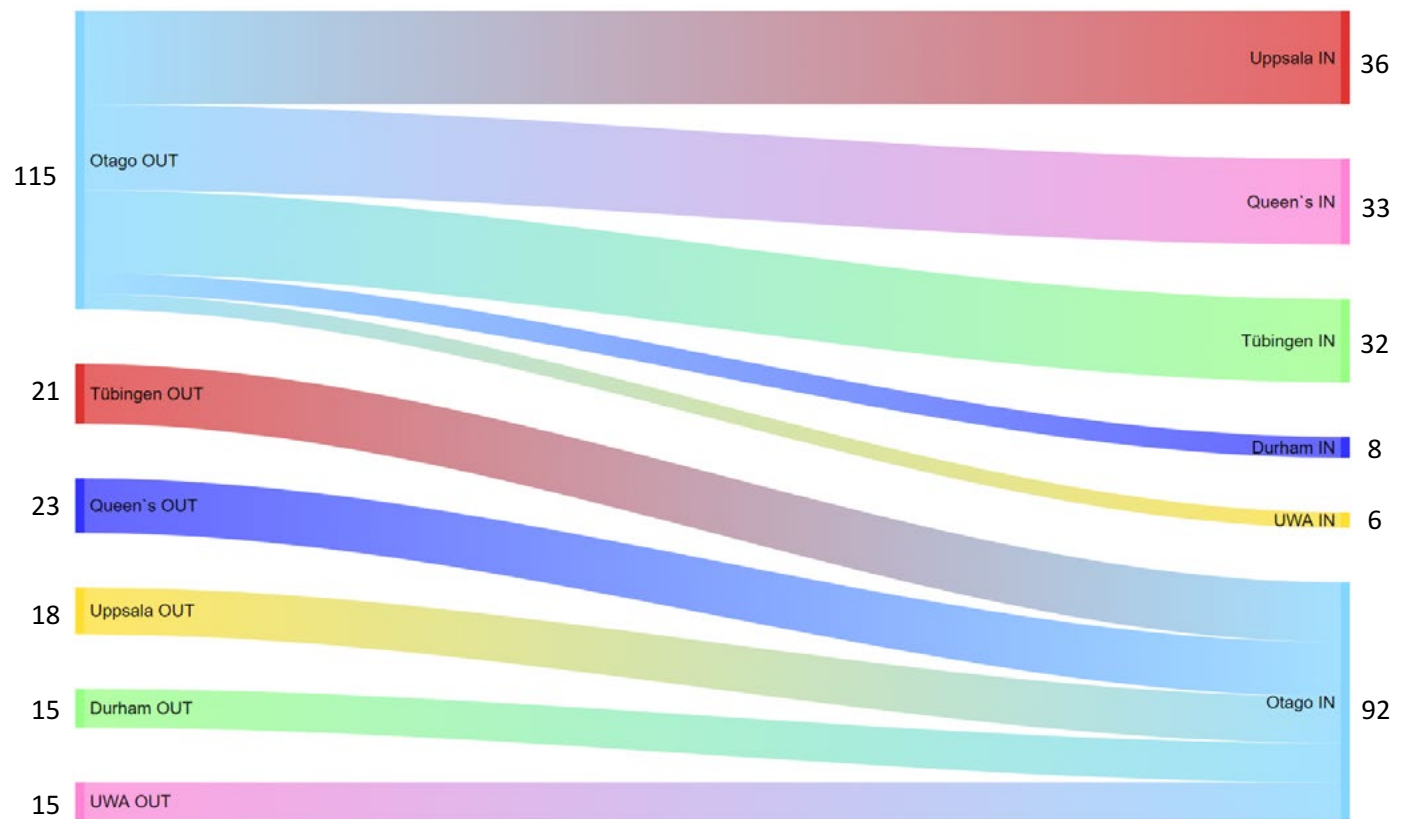
Incoming



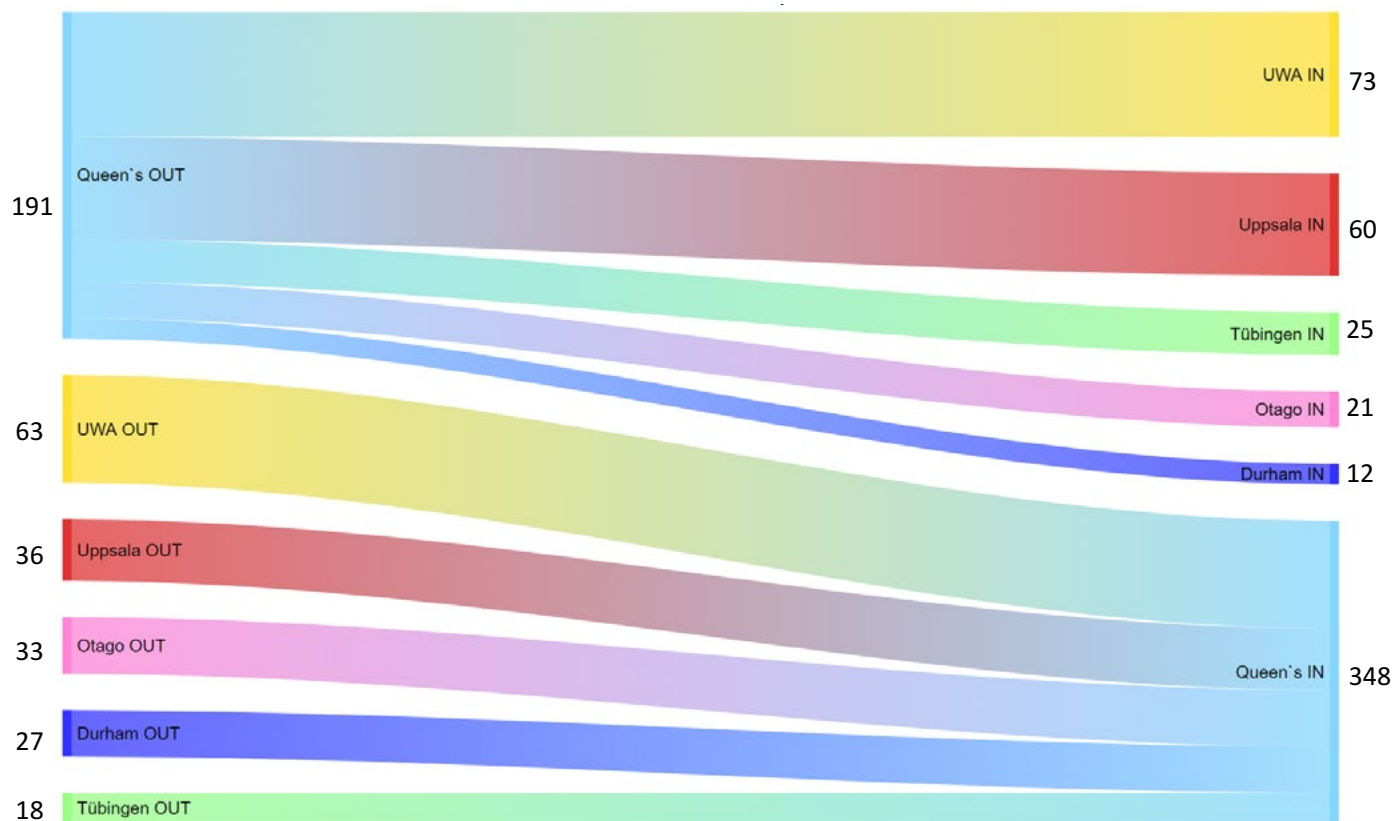
Matariki Student Exchange, 2013-2020 | Durham University



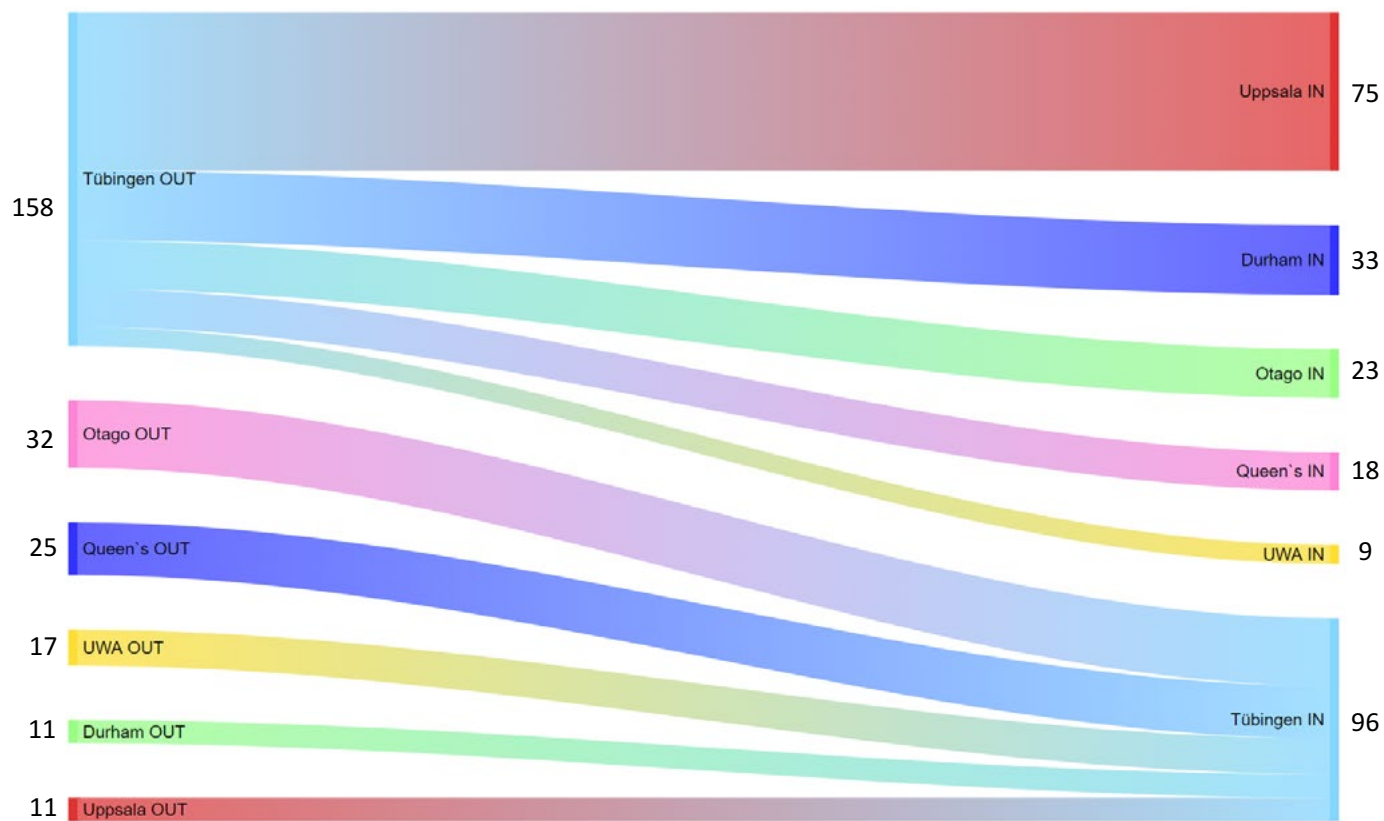
Matariki Student Exchange, 2013-2020 | University of Otago



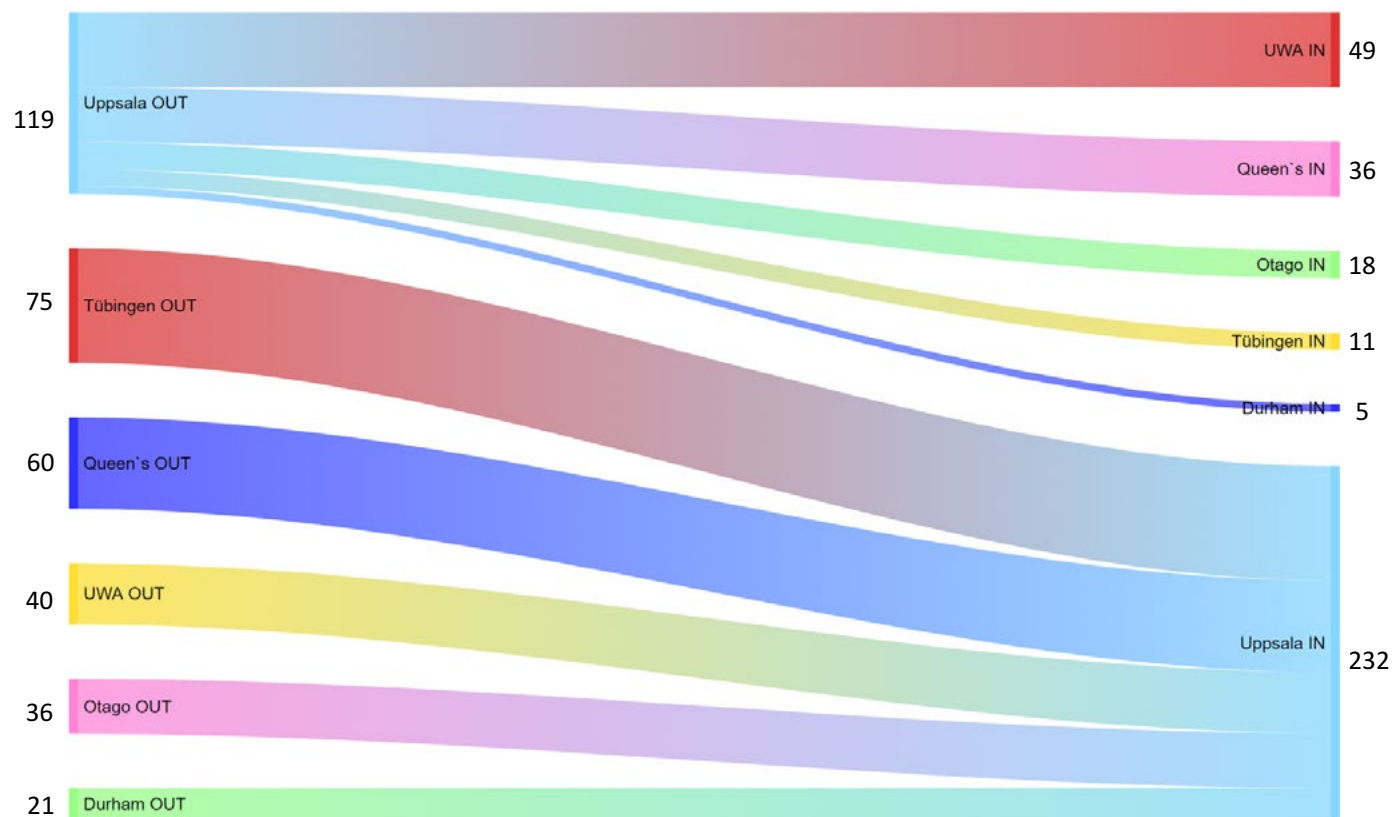
Matariki Student Exchange, 2013-2020 | Queen's University



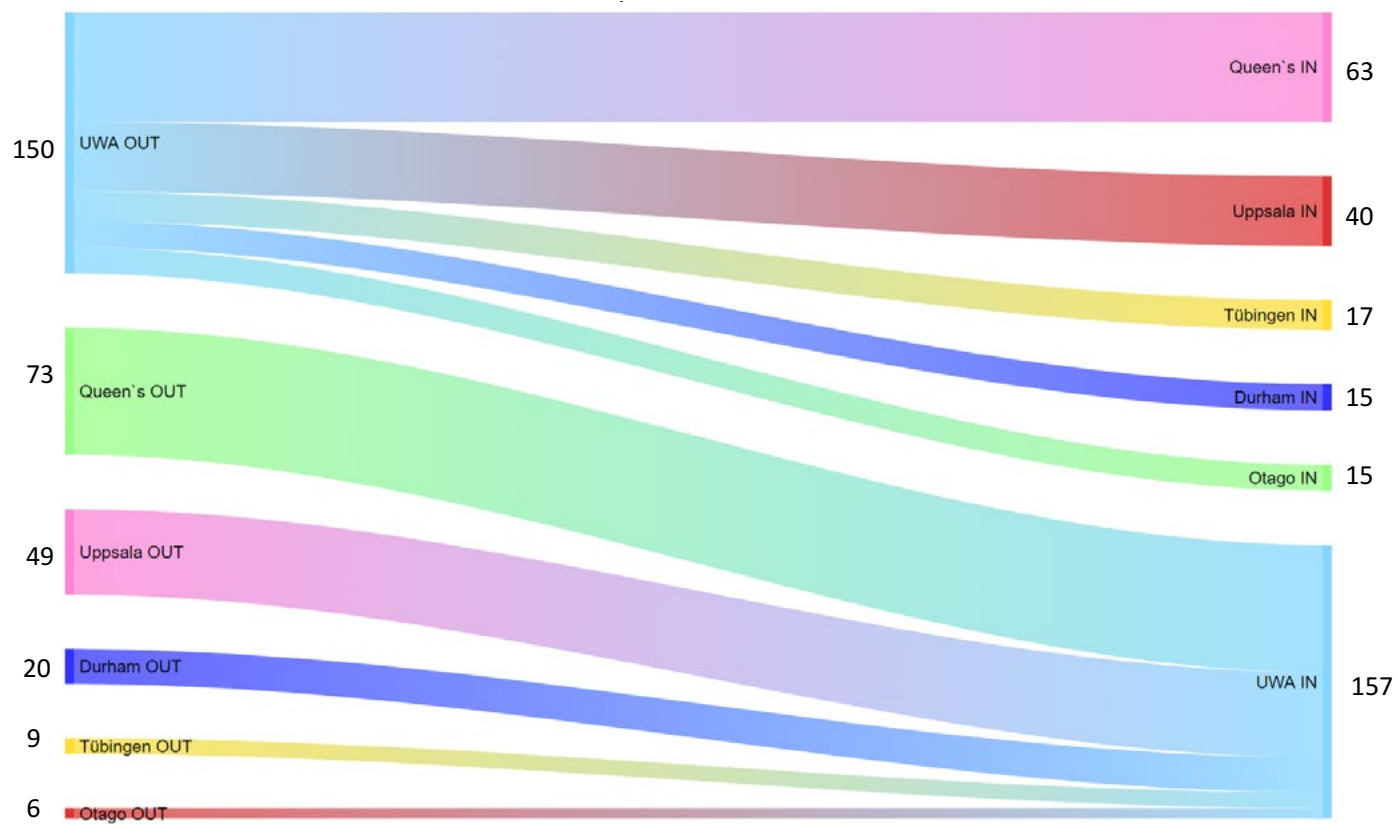
Matariki Student Exchange, 2013-2020 | University of Tübingen



Matariki Student Exchange, 2013-2020 | Uppsala University



Matariki Student Exchange, 2013-2020 | University of Western Australia



"We have an active Dartmouth–Queen's University research collaboration to study the effects of road salt on freshwater lakes and ponds. Working with Shelley Arnott at Queen's and her students, we're especially interested in how zooplankton communities respond to salt additions. Salt impacts on zooplankton may be particularly important, because they provide the key food web bridge from microscopic primary producers to fish.

This project has been a great way to build a formal international collaboration with the Arnott lab (we've known each other for a long time, but haven't done a project together since the late 1990s), and to engage in some 'cool science that matters' – to borrow the tag line for our Biology 16 course."



Q&A with **Kathy Cottingham**

Dartmouth College | Dartmouth Professor in the Arts & Sciences

The Matariki Global Citizenship Programme

The concept for the Matariki Global Citizenship Programme (GCP), designed to be an 'umbrella' for a variety of educational, research and engagement activities, emerged from an initial workshop at Uppsala in April 2016. This workshop marked the official launch of the programme and served as a prototype for our future GCP forums.



GCP delegates, Durham 2019

Partners decided that the programme should be built around three main strands:

- Community Engagement;
- Empowering Learners;
- Creating Spaces for Dialogue.

The annual student forums are an important part of the GCP and are designed to support the wider GCP agenda. They provide a structured space for group interaction and exchange, and for work to develop programme activities. The programme is initiated and led by students, in collaboration with faculty and administrative staff, allowing for joint working and a blending

of perspectives. The forum provides space for: showcasing research projects and examples of good practice; practical work sessions for activities already underway; and proposing future joint activities to develop the wider programme.

The first forum, around Community Engagement, took place at Otago in 2018; Durham hosted a forum around Empowering Learners the following year. The final edition in the pilot phase around Creating Spaces for Dialogue was scheduled for December 2020 at UWA, but the outbreak of COVID-19 has led to a re-evaluation of format and an exploration of sustainable, virtual collaboration.

As an extension to the GCP, the Matariki Global Citizenship Student Mobility Programme offers students from across the network the chance to undertake a fully-funded placement (4–12 weeks) at one of the other partner institutions, in order to carry out different activities and research projects relating to the concept of global citizenship. This initiative is still in its relatively early stages, but has already allowed ten students at various stages of study to take advantage of this unique opportunity.





Dartmouth delegates at GCP forum 2019 in Durham

Sharing best practice

GCP forum, Otago 2018



The Tübingen GCP Liaison is Professor Dr Thomas Potthast, Professor of Ethics, Philosophy and History of the Life Sciences (Faculty of Science), and Director of the International Centre for Ethics in the Sciences and Humanities. He explains that contributions of Tübingen delegates at the student forums have focused consistently on interlinking global citizenship and sustainable development, both on the conceptual and the practical level, in line with some of the courses they offer.

Training students and early-career researchers to become 'competent, open-minded, globally aware, and responsible leaders in science and society' is part of the University's Excellence Strategy: 'Research – Relevance – Responsibility. Open to New Challenges and a Global Scope of Action'.

Thomas Potthast said: "The Matariki GCP has helped to streamline our own institutional discourse on internationalisation of teaching programmes, by significantly increasing the number of English-taught courses (including the development of English-taught GC courses), and by expanding our curricular and extracurricular offers with components addressing global issues, environmental sustainability and intercultural competence. Our strategic international partnerships have proven to be extremely successful in global networking, especially by sharing best practice between critical friends in the Matariki Network."

09

Empowering learners

Durham University considers itself integral to the early development of the programme and has led a number of initiatives to develop it further – both within Durham and beyond.

After the first workshop in Uppsala, they noted that a good communication platform is essential to visualise activities in each institution and to advertise opportunities for students and staff to engage. Two Durham students developed a website for the programme (matarikiglobalcitizen.org), which was launched in October 2017, around the same time as the @matarikigcp social media platforms.

Durham was also the first partner to welcome an incoming student from UWA in 2018 under the

Global Citizenship Student Mobility Programme.

Rebecca Bouveng, Academic Liaison for the GCP at Durham, said: *"We were delighted to host the second annual Matariki Global Citizenship Forum in July 2019 on the theme of 'Empowering Learners'. What role should students play in shaping their own education? What structures and environments in higher education encourage student empowerment? Can students be both consumers and co-creators of their university experience? These were among the questions discussed at the Forum, as participants shared experiences, challenges and best practice from across the Matariki Network."*

Colleges vs Nations visit to Uppsala



Broadening worldviews

Riley Dolman (UWA) – outside Queen's BISC during his exchange visit



The Programme Lead at Queen's, Barbara Holler, believes that global citizenship is an essential component of a student's university education. *"An education with a narrow worldview makes it difficult for all but the most engaged to realise their potential on a global scale"*, she said.

During initial discussions about the Matariki GCP, Queen's colleagues decided that the opportunity would be hosted at the University's UK-based campus: the Bader International Study Centre (BISC). Staff there utilised the key principles framing the GCP to implement global citizenship across some of its courses and beyond, providing students with opportunities to broaden their worldviews and to engage with their local community.

Barbara Holler commented: *"The Matariki Global Citizenship Programme allows students to position themselves with an awareness of their place within a global setting. They are not defined or restricted by their nationality or geographic location. We believe that this initiative will become even more important in the coming years, as remote learning and teaching forces all of us to connect across time and space in new and exciting ways; while simultaneously asking humanity to both address and redress global inequalities created and maintained in the wake of COVID-19."*

Widening opportunities

Student forum discussions



According to Sze-En Watts, the GCP Lead at Otago, the value of the programme at Otago is twofold:

- Facilitating space and opportunity for students and the wider university to talk about global citizenship and to explore its implications; directly supporting the University's strategic imperative around commitment as a local, national and global citizen;
- Building a community between the various groups of students already engaged in global citizenship issues and initiatives on campus.

Last year, Otago created the role of 'Student Lead' for the Matariki GCP. This has enabled them to test activities that both excite student

interest and attract long-term attention. Events organised by the Student Lead have specifically aimed at sparking conversation around global citizenship, including a Global Citizenship Dinner Party. These events not only facilitate sharing and reflection of global citizenship ideas, but also allow a wide range of students to connect with each other.

Sze-En Watts said: "Otago students who have attended forums speak of their experiences as perspective-widening and invaluable to be able to share each university's successes and challenges in putting global citizenship on our research, teaching and community engagement agendas."

Deepening understanding



Laila Mendy, the GCP Lead at Uppsala (and a former student participant in the 2018 Otago forum), believes that the collegial and supportive atmosphere of the GCP has been one of the biggest benefits to Uppsala University:

"When we try to rethink the ways in which we engage with the surrounding communities, having allies and critical friends across the partnership can provide us with the greatest opportunity to grow as institutions and learners. The GCP spotlights and reflects on our best practices in order to improve them."

For Uppsala students, opportunities to engage with the network through exchanges can deepen their understandings of the world and the ways in which they navigate different places and ideas. These opportunities can have wide-reaching impacts on careers and goals, inspiring students to think through their own academic pathways.



Otago delegates in Durham

Exploring more sustainable forms of global citizenship

UWA's engagement with the GCP has been led by its McCusker Centre for Citizenship (MCC), which has also played a key role in the development of the Student Mobility Programme. In 2017/18, the MCC piloted this new initiative, which involved sending two UWA students to Durham University. This was followed in 2019/20 by five further UWA student fellowships hosted at Otago, at Durham and at Queen's BISC. In 2019/20, UWA also hosted three students from Durham University and Dartmouth College.

Chantal Bourgault du Coudray (UWA's GCP Academic Liaison) commented: "These activities have been very beneficial for the MCC in terms of expanding its international network and developing best practice with regards to global citizenship education. Even before the emergence of COVID-19 there was significant discussion about the sustainability of pursuing global citizenship by flying people around the globe, and the cancellation of the UWA forum

this year has prompted our exploration of more sustainable forms of global citizenship education, such as Collaborative Online International Learning (COIL). We are looking forward to developing and sharing best practice in this area with our Matariki partners."

UWA student Toby Joske, who undertook a student mobility experience at Queen's BISC, said: "My experience at the BISC empowered me as a learner. Firstly, it connected two previously disparate parts of my education: my theoretical background in Philosophy and Linguistics, and the practical work I had done with St Patrick's Community Support Centre (in Perth, WA) and the McCusker Centre. Engaging with the literature on global citizenship gave me the vocabulary to understand social issues and aspects of my education in a more complete and critical way, even things I thought had been out of reach before. ... Overall my experience increased my confidence, creativity and agency as a learner."

Sam Dale, Director of Student Support and Wellbeing at Durham University, presenting at the 2019 forum



Training the next generation of global leaders

For Dartmouth College, participation in the GCP student forums in particular has catapulted a number of its students and the Dartmouth Center for Social Impact into greater social impact pursuits, with a more nuanced consideration of how its global citizenship intersects with leadership.

Student delegates at the Durham forum in 2019 have since continually been pushing for Matariki to occupy a bigger space on campus for student leaders. Their firm and thoughtful leadership has inspired and catalysed the development of the Dartmouth Matariki Global Leadership Summit, due to launch in 2021. The goals of the summit are:

- To push students to consider their place of privilege on the world stage;
- To reflect with alumni and faculty on the tensions of intention versus impact relating to change-making work;
- To plan the remainder of students' undergraduate careers in light of their values and available resources.

Leah Torrey, Assistant Director for Social Sector Leadership at Dartmouth's Center for Social Impact, and Global Citizenship Lead, said: "I'm excited to be a part of the committee gathered to develop a COIL course focused on global leadership. While we are all stuck in our houses and mundane routines, we are craving the distinct perspectives often only gained through occupying new cultures and [experiencing] new countries. These novel perspectives and new questions help us all grow as citizens of the world. I'm excited that, together, we will be able to offer new programming that will train the next generation of global leaders!"

Visit to Ōtākou Marae during 2018 forum



Matariki celebrating 10 years

"I was a participant in the 2019 Matariki Indigenous Student Mobility Programme hosted by Queen's University in Canada, and was able to experience many different and amazing things. These included a short stay at Elbow Lake, where we learned about seed and food sovereignty, and engaged in a medicine walk and several other cultural ceremonies. As well as this, we visited the petroglyphs and a few important museums, meeting and engaging with many amazing people and learning immense amounts of new knowledge. It was an unforgettable experience that I'm grateful to have been a part of.

I was exposed to so many different cultural learnings and peoples and it has motivated me even further in my studies and in my hopeful career path in Indigenous/human rights. It was an unforgettable experience and opened my eyes to so many ideas I hadn't been exposed to before, and has given me a new perspective to view things with. Personally, I am very glad I went on the trip, as it was a privilege to learn about aspects of Canadian Indigenous culture, and share my own culture, and I have made some amazing friends and connections that I'm sure will last a lifetime."



Q&A with **Ashley Maroney**

University of Western Australia | Bachelor of Arts student, majoring in Political Science and International Relations

The Matariki Indigenous Student Mobility Programme

Building on their commitment to fostering scholarship on, and deepening understanding of, Indigenous peoples, Dartmouth College, the University of Otago, the University of Western Australia (UWA) and Queen's University have been collaborating since 2016 to offer an Indigenous Student Mobility Programme to students across the Matariki Network.

All of these institutions have experience in Indigenous issues, have Indigenous student populations, and are able to offer participants in the programme an immersion experience through links with local Indigenous communities. Although not directly involved in setting up the initiative, Durham University and Uppsala University have also participated in some of the student programmes.

Queen's MISMP 2019 participants gathered on the traditional territories of the Anishinabek and Haudenosaunee peoples to focus on Learning, Language and Land



The concept

Small groups of students from each participating partner join a two-week academic programme run at each of the participating institutions in successive years. Participants learn about issues of great significance to local host and partner university Indigenous communities, and gain an understanding of how those issues may be addressed in their respective home countries.

The first round of the MISMP involved 76 students overall and was held at:

- Otago in 2016 (20 students);
- UWA in 2017 (18 students);
- Dartmouth in 2018 (19 students);
- Queen's in 2019 (19 students).

The Matariki Executive Board has approved a second round, to build on what has been achieved so far and to develop new opportunities for students.

Kaitohoutohu Hata Temo (Otago) at Dartmouth's Mount Mooselauke Ravine Lodge in 2018





Matariki Smoking Ceremony, UWA 2017

Aims

The three main aims of the programme are:

- Teaching and learning: training the next generation of Indigenous scholars and thought leaders;
- Collaborative research: particularly relating to decolonising land-based education and Indigenous languages;
- Global networking: towards reciprocal relationship-building, to inform future collaborative work.

In order to ground this work, partners have articulated a joint statement of values and guiding principles. MISMP colleagues have looked to ancestral teachings and have determined that the foundation of the programme can be found in the principles as presented by: land; language; kinship; and collective and individual determination and self-governance.

Indigenous Studies at UWA

At the School of Indigenous Studies at UWA, the MISMP has contributed to innovative teaching and learning about Indigenous knowledge and ways of knowing. The two-week education activity for Indigenous students is part of an 'Indigenous Ways of Knowing' unit within their 'Indigenous Knowledge, Heritage and History' major. For them, this on-location education, based on relationship and reciprocity with Indigenous Elders and knowledge holders, reflects a resurgence of Indigenous education, which recognises both Indigenous knowledge and ways of knowing our worlds.

The MISMP has created unique opportunities for Indigenous students from UWA to explore the diverse and complex intersections between

land, language and learning. Twenty-one UWA students and five staff have participated in the programme since it began.

The theme of the UWA-hosted programme in 2017 was: 'Nyungar Katitjin Bidi, Shared Pathways of Nyungar Knowledge'. Staff and students participated in classroom and in-country education, to learn about the significance of Nyungar knowledge, heritage and history.

The MISMP has helped to create an enduring legacy for Indigenous education. Collaboration in the programme has enabled UWA to consolidate its research about Indigenous-centred teaching and learning, expand its global network of Indigenous scholars, and mentor

next-generation Indigenous scholars in teaching and learning.

Jill Milroy, PVC Indigenous Education, UWA, said: "The Matariki programme is one of several Indigenous short-term mobility programmes at UWA with an academic focus. Indigenous students enrol in the Matariki programme as a normal unit of study worth six credit points ... Students meet with the unit coordinator prior to and after the Matariki programme and submit formal assessments. Indigenous students in any undergraduate degree can enrol in the unit as a broadening unit, elective or as part of a major. This is a great way for students to study."

The 2019 MISMP at Queen's

From 23 June to 6 July 2019, Queen's University proudly hosted the fourth edition of the MISMP. Indigenous and ally students, faculty and Elders from Otago, UWA, Dartmouth, Queen's and Uppsala gathered at Queen's on the traditional territories of the Anishinabek and Haudenosaunee peoples to participate in land and community-based learning on the theme of 'Learning, Language and Land'. This theme was central to every academic decision made during

the organisation of the programme, reflecting our organisers' commitment to honouring traditional ways of knowing, learning and teaching.

Over the course of two weeks together, participants explored Indigenous pasts, presents and futures through various forms of education: discussions, participatory exercises, connections to the land, tours, films and presentations.

Joe Brant, Vice-Principal of Quinte Mohawk School, speaks to MISMP 2019 participants in the school gardens



Lindsay Morcom shared her research into Wampum and beadwork, explaining the significance of the principles of holistic education in Indigenous cultures, as well as traditional treaty-making between Indigenous Nations



Dartmouth, 2018



UWA 2017 – Paying respects on Rottnest



Fostering international Indigenous knowledge and collaboration

For some participants in the MISMP, it is the first time they have had the opportunity to travel abroad. For most, it is also the first time they have been a part of a nearly entirely Indigenous group of post-secondary learners and witnessed Indigenous ways of knowing, understanding, doing and honouring centred to the exclusion of all else in Western academia.

All of the participating universities have greatly benefited from the Matariki programme through the facilitation of a greater connection with their local Indigenous groups. Together, they have stated commitments to enhancing the inclusion of Indigenous knowledge. Bringing students and faculty together from around the world to share Indigenous knowledge in meaningful ways is vital to honouring this commitment. As this programme continues to develop, we hope to see even greater commitment to international Indigenous knowledge and collaboration.





Knowing Noongar in the city (UWA, 2017)

Student voices

The MISMP has mentored and encouraged students to voice their own knowledge in an exchange of teaching, learning and dialogue.

A UWA participant at the 2019 Queen's forum reflected:

"Our small acts of learning and speaking during our time in the programme are but a corner of the larger picture, with people not only actively participating in revitalising Indigenous people's ways [of] learning and language, but also in other features such as connection to land and working hard to revitalise Indigenous peoples and cultures overall."

A Dartmouth student participant at the 2019 Queen's forum commented:

"After feeling disconnected from my culture for so long, this opportunity reminded me of the strength and power I have from my culture and inspired me to delve deeper into what being Indigenous means to me and my community. I have begun practising my language throughout the week and even signed up for a class on my reserve for the end of the summer. I feel grateful to everyone I met that encouraged and supported me this week. It was a really informative and blissful experience."

One Otago student participant in the 2018 Dartmouth programme said:

"The best part about this trip was being able to meet with the Abenaki and Mohegan Tribe; having one-on-one kanohi ki te kanohi (face-to-face) time with the native people was really moving. This was really important to me, because we were able to learn of the tangata whenua (the Indigenous people) with a more hands-on experience, by exploring their ngāhere (forest) and being able to visit the museum, etc. I really enjoyed this, because the programme wasn't just all seminars, we were able to get out and explore a bit more with the local people. It was definitely a highlight to meet and learn of the other tauira (great people) from all the other universities as well as the Native tauira that attend Dartmouth."

Another Otago student participant in the 2018 Dartmouth programme summed it up:

"Meeting with other Indigenous peoples from around the world and building connections with them was the best experience. It was very illuminating to learn about their cultures and knowledge, and to discover both the differences and similarities. Being immersed in a proudly Indigenous context for two weeks was highly inspirational. It really entrenched my passion for Indigenous issues and Indigenous ways of knowing and has motivated me to find opportunities to study and research in this area."

The Matariki Three Minute Thesis[®] Competition

“UWA’s participation in the virtual Matariki 3MT® directly supports a key priority of UWA’s Strategic Vision 2030 to engage openly and ensure our research benefits the widest possible range of communities. It has, and will continue to expand and enhance our external engagement beyond Australia. In the wake of COVID-19 and the need to consider the creative and cost-effective use of technology more broadly across education and research, the virtual Matariki 3MT® certainly illustrated forward thinking and innovative vision in Global Partnerships and Engagement as an area of focus, because it will now enable UWA’s research students to continue to share their knowledge around the world.” (Professor Imelda Whelehan, Dean, Graduate Research School, UWA)



The Three Minute Thesis (3MT®) competition celebrates research conducted by PhD students around the world. The competition was developed by the University of Queensland in 2008, and aims to help students to develop their academic, presentation and research communication skills.

Competitors must present their research in just three minutes, in a language appropriate to a non-specialist audience. They are allowed one PowerPoint slide, but no other resources or props.

Following detailed cross-network discussion and extensive planning, the inaugural Matariki 3MT® contest took place in October 2019. Participating partners were Dartmouth, Durham, Otago, Queen’s and UWA. Each institution put forward videos of the top three student presentations from their internal competition rounds, making a total of 15 entries for this virtual contest. Presentation topics varied widely, with both the sciences and the humanities being represented.

The judging panel was made up of one academic representative from each participating institution, plus one student representative from UWA (as Chair institution at that time). They individually scored each of the 15 video presentations according to the centralised 3MT® judging criteria, followed by a virtual meeting to consolidate scores and agree on the winning entries.



Victoria Purdy, Otago student and 2020 People's Choice winner, receives her certificate from Professor Richard Blaikie, DVC Research and Enterprise



UWA 3MT finalists (2019) with Graduate Research School colleagues

“We were delighted at the University of Otago when the Matariki Network invited us to participate in its 2019 inaugural Three Minute Thesis (3MT®) competition. The October timing neatly fell just after Otago’s internal competition, and allowed our top Otago finalists to present their research to a truly international audience – an amazing experience for them! The online format was novel, allowing far more people to view the presentations than would normally be the case – and pre-COVID-19, provided a very useful blueprint for running of similar events under the 2020 pandemic.” (Andrew Lonie, Manager, Graduate Research School, Otago)

The results were:

- First place: Katarina Doughty (UWA) – ‘Reducing global food waste through insect farming’;
- Runner-up: Nevena Martinovic (Queen’s) – ‘Acting your age – Gender and age on the 18th-century stage’.

Alongside the panel competition, the Matariki Secretariat also organised a People’s Choice vote, which allowed wider members of each participating university and the general public to vote for their favourite video. This proved hugely popular and attracted over 1,500 votes!

The winner was:

- People’s Choice: Cassie Stylianou (Otago) – ‘Unravelling the genetic variants underlying inherited endometrial cancer risk’.

All finalists were presented with a Matariki 3MT® certificate of achievement, and the winning three students were awarded generous cash prizes for their outstanding efforts. The overall winning video was also submitted to the central 3MT® Queensland team, to be uploaded onto their website, which has helped to increase the visibility of our students’ incredible research and the Matariki Network as a whole.

*All of the videos have been uploaded to the **Matariki YouTube channel**.*



2019 3MT People’s Choice winner – Cassie Stylianou (Otago)

"As the Tübingen Matariki Coordinator since 2012, I have joined the annual meetings of the International Leads group – from the meeting in Prague 2014 to the one in Uppsala 2019. I have attended and co-organised the Research Ethics events in Tübingen and Durham 2011 – 15, two Humanities colloquia (Tübingen 2017 and Uppsala 2018), and several other Matariki events in Tübingen over the years, for example the Quantum Science Workshop in 2013 and the Matariki Lecture in 2018.

Having worked in international research cooperation with Eastern and Southeastern Europe on the one hand and East Asia on the other before joining Matariki as the Tübingen Coordinator, I have found over the past eight years that, although our universities have much in common, which has allowed our many collaborations to flourish, there are also some profound differences. These are valuable, too, as they have provided great opportunities to learn from each other. A worldwide network like Matariki, including partners in the Northern as well as the Southern hemisphere, offers a challenging diversity. The multilateral approach opens a much broader scope of action and global thinking than any bilateral or trilateral cooperation can ever achieve. Cross-cultural learning, including different higher education traditions, and intercultural communication with strategic partners as our 'critical friends', not competitors, might be one of the most beneficial experiences that I have gained from Matariki networking."



Q&A with **Dr Karin Moser v. Filseck**

University of Tübingen | Research Division staff member; Matariki Coordinator

"I am the faculty liaison for the Matariki Global Citizenship Programme (GCP) at the BISC and am responsible for engaging with students in processes of global citizenship in a number of different ways: seminars, workshops, conferences, colloquia, round tables, poetry slams, social activism and community engagement activities. I have created Matariki in Action student events, to move the more theoretical aspects of the Matariki GCP towards a more accessible format.

The Matariki GCP has been an effective tool, providing students at the BISC with an opportunity to explore the real-life implications of global citizenship and to critically manoeuvre the intersection of theoretical discourse and contested realities of global citizenship. All of this takes place using a wide range of formats and covering a broad range of topics in an interdisciplinary way. Students have given me the chance to remain responsive to the qualities that form the basis of global citizenship – empathy, curiosity, knowledge and inspiration"



Q&A with **Barbara Holler**

Bader International Study Centre (BISC), Queen's University | Assistant Professor,
Global Development Studies, History and BISC 100-101

Matariki Partner Profiles

Profile

Dartmouth College



Dartmouth Hall



Founded in 1769, Dartmouth College in New Hampshire, USA, is a member of the Ivy League and consistently ranks among the world's greatest academic institutions.

Dartmouth has forged a singular identity for combining its deep commitment to outstanding undergraduate liberal arts and graduate education with distinguished research and scholarship in the arts and sciences and its four leading graduate schools: the Geisel School of Medicine; the Guarini School of Graduate and Advanced Studies; the Thayer School of Engineering; and the Tuck School of Business.

For more information about Dartmouth College, please visit: dartmouth.edu

Occom Pond



Mission and values

- Dartmouth College educates the most promising students and prepares them for a lifetime of learning and responsible leadership, through a faculty dedicated to teaching and the creation of knowledge;
- Dartmouth expects academic excellence and encourages independence of thought within a culture of collaboration;
- Dartmouth faculty are passionate about teaching our students and are at the forefront of their scholarly or creative work;
- Dartmouth embraces diversity with the knowledge that it significantly enhances the quality of a Dartmouth education;
- Dartmouth recruits and admits outstanding students from all backgrounds, regardless of their financial means;
- Dartmouth fosters lasting bonds among faculty, staff, and students, which encourage a culture of integrity, self-reliance, and collegiality and instill a sense of responsibility for each other and for the broader world;
- Dartmouth supports the vigorous and open debate of ideas within a community marked by mutual respect.

Quick facts

- Founded 1769;
- Four-year private liberal arts college;
- Affiliation: Ivy League;
- Students: approximately 4,400 undergraduate, 2,100 postgraduate;
- Staff headcount (2018): 2,938 full-time; 328 part-time;

- Divisions: Undergraduate College with more than 50 departments and programmes; Graduate Schools of Arts and Sciences, Medicine, Engineering, and Business;
- Motto: Vox clamantis in deserto ('A voice crying out in the wilderness');
- Nickname: 'Big Green'.

Diversity

- Undergraduate students of colour: 38% ;
- International undergraduate students: 10%;
- Graduate students of colour: 23%;
- International graduate students: 27%.

Off-campus programmes

- Undergraduates have the opportunity to study in 46 faculty-led off-campus programmes in 25 countries.;
- About half of undergraduates take part in an off-campus programme at least once.

Athletics

- Nearly 25% of students participate in intercollegiate athletics.;
- Dartmouth offers 35 intercollegiate varsity sports (18 women's, 16 men's, one co-ed) at the NCAA Division I level, and 35 club sports.;
- Including intramural sports, three-quarters of Dartmouth undergraduates participate in some form of athletics.

Alumni

- The 62,700 alumni of the undergraduate college from around the world make up the bulk of Dartmouth's 83,700 alumni, including the graduate and professional programmes.

Profile

Durham University

Bow Lane, Durham



View from the River Wear, Durham



Durham University is a globally outstanding centre of teaching and research, based in historic Durham City in the UK.

We are a collegiate university, committed to inspiring our people to do outstanding things at Durham and in the world.

We conduct boundary-breaking research that improves lives globally and we are ranked as a World Top 100 university with an international reputation in research and education (QS World University Rankings, 2021).

We are a member of the Russell Group of leading research-intensive UK universities and we are consistently ranked as a top 10 university in national league tables (*Times and Sunday Times Good University Guide*, *Guardian University Guide* and *The Complete University Guide*).

University Congregation



Facts and figures

The University, founded in 1832, builds on more than five centuries of tradition.

Key dates

- Established by Act of Parliament in 1832, Durham is England's third oldest university;
- Together with our partners at Durham Cathedral, we manage the City's UNESCO World Heritage Site, which includes Durham Castle, home to University College, and the Special Collections and exhibition space at our Palace Green Library;
- Our collegiate system is part of what makes Durham special. Our seventeenth and newest college, South, opened in 2020;
- Our student population numbers are at 19,367 (2019/20) across undergraduate, postgraduate and research degrees;
- 30% of our students come from outside the UK, representing over 130 countries;
- Durham employs 4,300 staff, 40% of whom are from a non-UK origin;
- The University is made up of four Faculties, hosting 26 departments and schools, 10 research institutes and over 60 research centres;
- 83% of Durham research is assessed as 'internationally excellent quality' or 'world-leading' in the UK's most recent Research Excellence Framework;
- Our commitment to outstanding teaching is recognised by a Gold Award from the UK's Teaching Excellence and Student Outcomes Framework;
- Durham is committed to providing an unrivalled student experience with opportunities in sports, the performing arts and student volunteering: we are Britain's Number 1 Team Sport University and support over 50 capped internationals per year; 27 student theatre companies stage 90 productions every year; over 1,200 musicians participate in around 80 concerts; and students build up a total of 35,000 volunteer hours towards more than 80 student-led community-focused projects.

For more information about Durham University, please visit: durham.ac.uk/about



Profile

The University of Otago

Aerial view, Dunedin campus



For more information
about the University
of Otago, please
visit: otago.ac.nz

Founded in 1869, the University of Otago is New Zealand's first university, and home of New Zealand's first Medical School and its only Schools of Dentistry and Surveying. It is the southernmost university on the planet and has a nationwide presence from Invercargill to Auckland.

Otago's main campus is in Dunedin, with specialist campuses in Wellington, Christchurch and Invercargill.

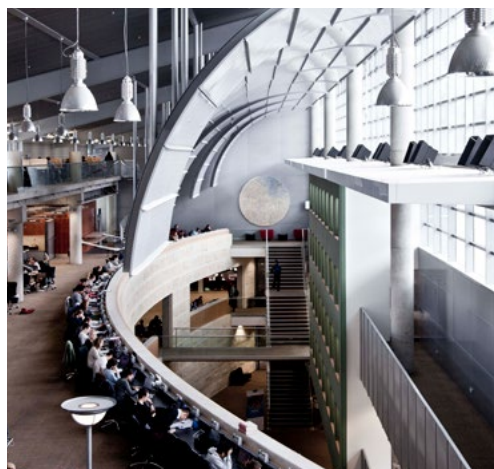
Students

- 21,240 students by headcount (18,915 equivalent full-time students (EFTS));
- 2,972 international students from around 100 countries (14% of the student population);
- Māori and Pacific students comprise 10.3% and 5.0% of total enrolments respectively (2019: 12.4% and 5.4% of domestic EFTS);
- More than 4,000 postgraduate students, including 1,400 PhD students;
- More than 85% of new students come to the University from outside Dunedin;
- 95% of graduates go into work or on to further study;
- Otago graduates are recognised for their interpersonal and negotiating skills, conceptual and analytical skills, and independent judgement.

Staff

- 3,996 full-time-equivalent (FTE) staff;
- 1,744 FTE academic and research-only staff;
- Four academic divisions: Humanities, Sciences, Health Sciences and Business; offering more than 200 undergraduate and postgraduate programmes;
- Summer School and Distance Learning programmes;
- 90% of academic staff are regularly involved in community service activities, on average comprising 8.5% of their time;
- More than 700 public lectures, symposia, continuing education and performing arts activities on campus each year;
- Well-established academic outreach programmes, including Hands-On at Otago, Science Wānanga and the New Zealand Marine Studies Centre.

Central Library



Graduation



International Focus

- More than 300 institutional partners;
- 184th in the QS World Rankings and within the top 1% of universities internationally;
- Internationally accredited Business School: AACSB and EQUIS accreditations;
- Maximum 5-star plus ranking from QS Stars reflects quality and excellence;
- Founding member of the Matariki Network of Universities.

Ares of Strength

- Leadership and partnership roles in national Centres of Research Excellence and New Zealand's National Science Challenges, and leadership of Genomics Aotearoa;
- 13 flagship multidisciplinary research centres, 17 research themes and seven overarching areas of research strength;
- 64 Rhodes Scholars since 1904;
- Three Prime Minister's Science Prize winners (2011, 2014, 2017);
- Unmatched record in the National Teaching Excellence Awards: six Supreme Award winners over the past eight years;
- Tops New Zealand's Tertiary Education Commission's Educational Performance Indicators for student performance and retention;
- Hosts two of the most widely recognised longitudinal studies in the world: the Dunedin Multidisciplinary Health and Development Study; and the Christchurch Health and Development Study;
- Home of New Zealand's National Poisons Centre, providing a 24/7 service to the public.

Economic Impact

- Annual revenue of NZ\$779.1 million (2019);
- Estimated national annual economic impacts of more than NZ\$2 billion;
- Total assets of NZ\$2.4 billion (2019);
- Sustainability Strategic Framework 2017–21 integrates sustainability principles and practices across all activities;
- First New Zealand university to achieve Fair Trade status and to sign the international SDG Accord to pursue the UN Sustainable Development Goals.

Environment

- Dunedin campus is recognised as one of the 16 most beautiful campuses in the world;
- Campus Watch teams on duty 24/7 to ensure a safe and secure campus environment;
- Dunedin campus provides 15 residential colleges for almost 3,500 students;
- Around 170 student clubs, societies and activities on campus;
- Otago University Rugby Football Club has produced more All Blacks than any other club;
- Otago has won the New Zealand Universities Rowing Championships 20 times in the past 21 years;
- Culture of good citizenship:
 - Social Impact Studio worked with 65 community partners in 2019;
 - 42,350 volunteer hours undertaken by 6,000 students (2019);
 - 52% of graduates indicated they had undertaken volunteer work while studying at Otago.

Profile

Queen's University

Main campus



Bader International Study Centre is home to the Global Citizenship Forum



Situated on the traditional lands of the Anishinaabe and Haudenosaunee territory, Queen's is one of Canada's oldest degree-granting universities, and has influenced Canadian higher education since 1841.

A contemporary hub of academic research, Queen's is among the top medical-doctoral universities in Canada. Its university- and faculty-based research centres provide dynamic, collaborative settings for scholars and students. Queen's researchers lead the way in numerous fields, making notable advances recently in Particle Astrophysics, Cancer Research, Art Conservation, Geotechnical Engineering, Biodiversity, and Clean Energy Technology.

Bolstered by the outstanding reputations of its scholars and researchers – including 2015 Nobel Prize winner Arthur B. McDonald – Queen's provides students with a rich learning environment that deepens understanding and develops comprehensive skills for today's evolving workplace.

Queen's is highly ranked in Canada for student experience, taking an inclusive approach and offering learning beyond the classroom. This experience includes the most clubs per capita of any Canadian university, as well as a robust international exchange programme with more than 220 partners.

University graduation



With particular research strengths in Physics, Cancer Research, Geo-Engineering, Political and Legal Theory, Surveillance Studies, Mental Health and Data Analytics, Queen's University prepares graduates for excellence.

Welcoming and supporting students, faculty and staff from all countries and backgrounds to a vibrant, safe and supportive community is an important part of the Queen's experience. Diverse perspectives and a wealth of experience enrich our campus and our community. A core part of the Queen's mission is to engage students, staff and faculty in international learning and research, both at home and abroad

Queen's quick facts

- Founded: 1841 by Royal Charter of Queen Victoria;
- Number of students: over 25,000 undergraduate and graduate students;
- International students: 3,877 undergraduate and graduate students from more than 95 countries;
- Two campuses: Kingston, Canada; and East Sussex, England;
- 58 Rhodes Scholars;
- Ranked in the top five universities in Canada;
- Over 150,000 alumni in 154 countries;

- Seven faculties: Arts & Science; Engineering & Applied Science; Law; Health Sciences; Education; Stephen J.R. Smith School of Business; and School of Graduate Studies;
- A fully integrated network of six libraries;
- Member of U15 group of Canadian Intensive Research Universities;
- Home to 22 institutional and faculty-based research centres and institutes;
- Holds 47 Canada Research Chairs;
- Home to several outstanding museums and arts facilities, including the Agnes Etherington Art Centre and the Isabel Bader Centre for the Performing Arts.

For more information about Queen's University, please visit: queensu.ca

Profile

The University of Tübingen

Scenic view of Tübingen old town



Neue Aula, one of Tübingen's signature buildings

Count Eberhard 'the Bearded', later Duke of Württemberg and Teck, founded the University in 1477. In the foundation document, the Count set out the University's tasks: '[It shall] ... help to dig the well of life, from which may be drawn constant consolatory and healing wisdom from all ends of the Earth to quench the ruinous fire of human stupidity and blindness...'

With its more than 500 years of history, the University of Tübingen is one of Germany's oldest. Many great intellectuals have studied and worked in Tübingen, including Kepler, Hegel, Hölderlin and Schelling.

'Innovative, interdisciplinary, international': these three words summarise what makes the University of Tübingen special. Excellent research and teaching are Tübingen's answer to the challenges of the future in a globalised world. We maintain exchanges with partners around the globe – both at institutions of higher education and at non-university research institutions. Networks and cooperation across faculty and subject boundaries are the pillars of success. This is reflected in our outstanding position in international rankings. In addition, we are one of the 11 German universities distinguished with the title of 'excellent'.



Key dates

- **1477:** Count Eberhard 'the Bearded' founds the University, establishing four faculties: Theology, Law, Medicine, Philosophy;
- **1769:** Duke Karl Eugen von Württemberg adds his name to that of the University, making it 'Eberhardino-Carolina';
- **1790–93:** Hölderlin, Hegel and Schelling are all students at the Evangelisches Stift;
- **1863:** The first Science Faculty established at a German university;
- **1876:** Enrolments top 1,000 for the first time;
- **1979:** Enrolments pass 20,000 for the first time;
- **1997:** Opening of the Museum in Schloss Hohentübingen with unique artefacts from prehistory, classical archaeology, ancient Egypt, the ancient Middle East, and cultural anthropology;
- **2010:** Formation of seven broad-based faculties (Protestant Theology, Catholic Theology, Law, Medicine, the Humanities, Economics and Social Sciences, and Science);
- **2011:** Opening of the Centre of Islamic Theology, the first of its kind in Germany;
- **2019:** The University of Tübingen is once more selected as one of Germany's Universities of Excellence under the German government's Excellence Strategy.

The University of Tübingen has:

- Some 28,000 students;
- Over 200 study programmes;
- More than 500 professors;
- More than 4,900 scientists and academics.

Location

The city of Tübingen, in south-west Germany, has some 85,000 inhabitants, 35,000 of whom are engaged in research, teaching or studying. Tübingen's medieval old town brings history to life. At the same time, the many students and researchers from across Germany and around the world give Tübingen an open, cosmopolitan atmosphere.

For more information about the University of Tübingen, please visit: uni-tuebingen.de/en/university



Profile

Uppsala University

Uppsala University Main Building



Campus Ekonomikum



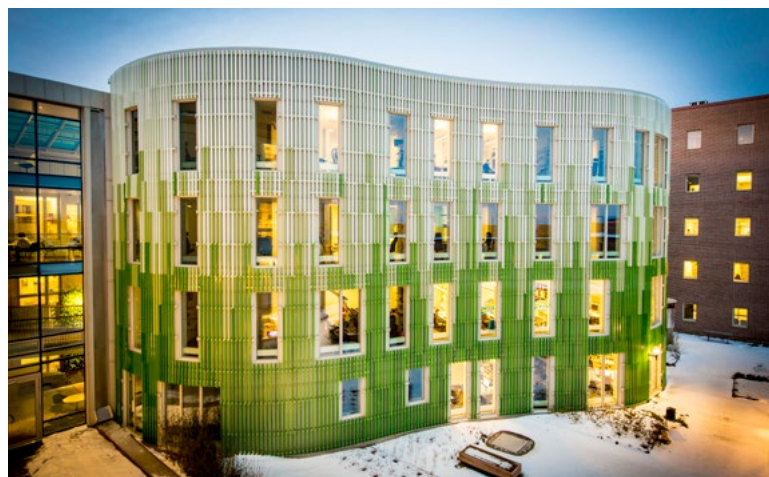
The mission of Uppsala University is to gain and disseminate knowledge for the benefit of humankind and for a better world. The University rests on the idea and fundamental belief that investments in education and research contribute to a better future. Our ultimate goal is to conduct education and research of the highest quality and relevance to make a long-term difference in society.

Founded in 1477, Uppsala is Sweden's first university. As such, we have a long history and rich traditions. For more than 500 years, the University has found its way in a constantly changing world. Today, we are one of the world's top 100 higher education institutions and we aspire to further consolidate our strong position. To achieve this, it is vital both to cherish academic freedom and institutional independence, and to foster innovation and develop active collaboration and interaction with society.

The backbone of our activities is outstanding research across a range of fields. With strong basic research complemented by initiatives to promote cross-disciplinary, challenge-driven research, Uppsala University is well placed to meet the challenges facing society. The nine faculties are divided into three broad areas: medicine and pharmacy; science and technology; humanities and social sciences.

Each year, Uppsala University welcomes thousands of highly motivated students from Sweden and across the world. Our students acquire cutting-edge expertise and thematic breadth, and gain experiences for life. The nine

UScLifeLab



faculties offer disciplinary depth and opportunities for interdisciplinary education with a wealth of potential. Uppsala University has a comprehensive range of programmes and courses at both undergraduate and Master's levels.

A growing range of Master's degree programmes now span traditional disciplinary boundaries. A degree from Uppsala University is highly regarded in the job market.

Uppsala University in numbers (2019)

- Sweden's first university – founded 1477;
- Three disciplinary domains: Humanities and Social Sciences; Medicine and Pharmacy; Science and Technology;
- Nine faculties;
- Turnover (revenue): SEK7,300 million (EUR 691 million);
- Employees: 7,265 (average); 6,251 full-time equivalents (FTEs);
- Facilities: 393,000 square metres;
- Number of PhD students: 2,260;
- Number of PhDs conferred: 362;
- Number of peer-reviewed scholarly publications: 5,167;
- Teaching staff (FTEs): 1,678 (43% women);
- Professors (FTEs): 605 (30% women);
- Revenue for research and PhD programmes: SEK5,153 million (EUR 488 million) – 71% of total turnover;

- Research: receives 56% of its funding from external sources;
- Bachelor's programmes: approx. 70;
- Master's programmes: approx. 70;
- Freestanding courses: approx. 1,950;
- Number of registered students: 45,925 FTEs 26,045 (Master's level: 26%);
- Most popular programmes: Law, Medicine and Psychology;
- Number of degrees awarded: 5,841 – of which 53% Master's degrees;
- Number of international Master's programmes: approx. 60;
- Freestanding courses in English: approx. 750;
- International student exchanges: agreements with over 400 universities worldwide; approx. 1,420 incoming and 940 outgoing students;
- Number of fee-paying students: 1,414.

**For more information
about Uppsala University,
please visit: uu.se/en**



Profile

The University of Western Australia

Winthrop Hall



For more information
about the University
of Western Australia,
please visit:
uwa.edu.au

Guild Village



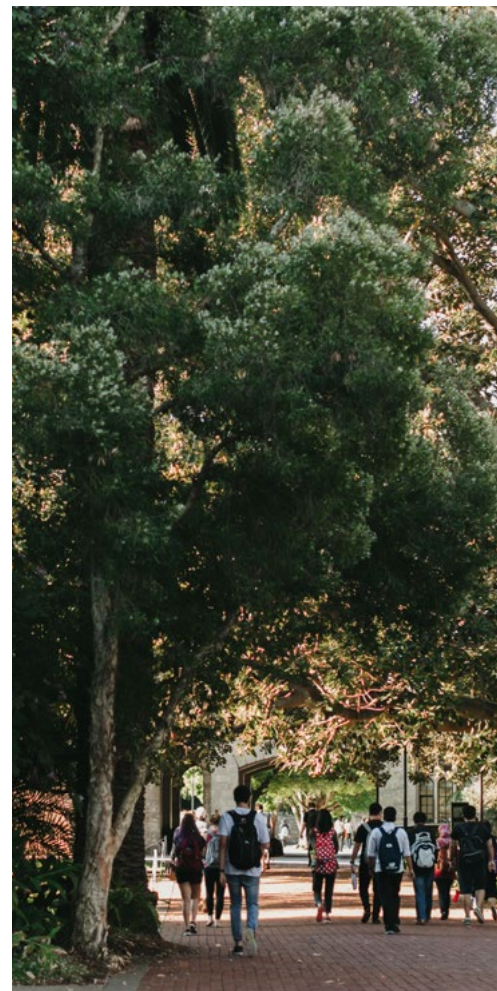
UWA's main campus is located on the picturesque banks of the Swan River, minutes from Perth's Central Business District. With its mix of heritage buildings, contemporary architecture and landscaped gardens, our stunning campus offers a unique and dynamic learning environment, alongside a wide range of social, cultural and recreational services and facilities.

Perth is the closest capital city to most capital cities in the Asia Pacific region and the only city in Australia with a direct international flight to Europe. Perth shares a similar time zone (GMT +8:00) to 60% of the world's population, including most of Asia, and has just a 2.5-hour time difference from India. This means that businesses, research projects and other enterprises based in Perth have better access to huge global resources and markets..

Key dates

- **1911:** The University of Western Australia Act 1911 is passed by Parliament;
- **1913:** Total enrolments 184 - 63% male, 37% female. Three founding faculties: Arts, Science and Engineering;
- **1919:** A 999-year lease is signed for UWA's Crawley site (now Perth);
- **1920:** Total enrolments 332 - 59% male, 41% female;
- **1960:** Total enrolments 3508 76% male, 24% female;
- **1990:** Telethon Institute for Child Health Research is founded by UWA's Winthrop Professor Fiona Stanley;
- **2000:** Total enrolments 22,159 - 50.8% male, 49.2% female;
- **2010:** Total enrolments 22,159 - 50.8% male, 49.2% female.

Saw Promenade



Rankings

- **World top 50:** for Agriculture and Forestry; Anatomy and Physiology; Civil and Structural Engineering; Mineral and Mining Engineering; Psychology and Sports-related subjects (QS World University Rankings, 2020);
- **World Top 100:** ranked 92nd (QS World University Rankings, 2020);
- **World Top 100:** ranked 85th (Academic Ranking of World Universities, 2020);
- **First in Australia:** for Biological Sciences, Clinical Medicine, Agricultural Science, Environmental Science and Engineering, and Marine/Ocean Engineering (Academic Ranking of World Universities, 2019);
- **Five-star rating:** for Communications, Engineering and Medicine graduate starting salaries; our graduates in these fields are among the highest paid in Australia (Good Universities Guide, 2019).

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Chair's Welcome	Professor Bernd Engler (Tübingen)
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