CURRICULUM FRAMEWORK TRANSFORMATION TASKFORCE

SUSTAINABILITY SPECIALIST SUPPORTING PAPER

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1 Introduction | Purpose

Sustainability features strongly in *Taumata Teitei* and is one of the "hallmark elements" in the Curriculum Framework Transformation (CFT) Programme's vision for a distinctive Waipapa Taumata Rau | University of Auckland student experience.

As part of the CFT Programme, a Sustainability Working Group was established to develop an aspirational vision for education for sustainability at Waipapa Taumata Rau | University of Auckland, to map how we are currently achieving this vision, identify major gaps, and recommend structures and initiatives that will take the University toward the vision.

This paper is designed to inform the University community about the Sustainability Working Group's progress and emerging recommendations. We begin by outlining the references to sustainability in *Taumata Teitei* and the definition of sustainability we have adopted. Following this, we explain our group's composition, approach and consultation journey to date. We explain the main themes of our work, which include connections with other specialist CFT groups, conducting research on models used in other tertiary institutions, and the competencies associated with sustainability learning.

Our emerging recommendations section first presents the principles we see as critical to the future of education for sustainability at Waipapa Taumata Rau | University of Auckland. We then outline a proposal for a Sustainability Teaching Hub, and the curriculum development and other responsibilities the hub would hold. A suggested timeframe for key actions concludes the paper.

2 Sustainability in Taumata Teitei

There are multiple references to sustainability in *Taumata Teitei*. The Vice-Chancellor's message mentions "our commitment to ecologically sustainable systems" and "preservation and protection of our natural world". It also claims that "through our lived values we will continue to demonstrate our belief in sustainable … societies".

In the 'Our Impact' section of *Taumata Teitei,* "Leading transition to sustainable ecosystems" is one of four interdependent priorities. This includes "extending the reach and significance of the Sustainable Development Goals" and "being a global leader in sustainable practices through education".

In the Education and Student Experience section, there is a vision for students to "possess an intimate and deep sense of cultural identity, social justice and civic duty and sustainable practices, which will be demonstrable in their actions and interactions. Our graduates will stand apart from others in their readiness to play leading roles in public debate and in matters of relevance to our communities". One of the strategic priorities in this section is "Graduates who make the world better tomorrow than it is today".

The Our Enabling Environment section claims that "Kaitiakitanga will be evident in our approach to sustainability and woven into everything we do" and "our campuses and precincts will showcase our innovation".

3 Defining Sustainability

Sustainability is a broad term with many different meanings. Our working group foregrounds *environmental* sustainability, acknowledging that other CFT groups place greater emphasis on social and economic dimensions.

The "leading transition" priority in *Taumata Teitei* has been expanded in other University documentation to include reference to abundance, i.e*., Leading transition to sustainable and abundant ecosystems.* Our working group feels that this simple definition has the advantage of clearly signalling the importance of the natural world and that sustainability is about more than preservation of the status quo.

We feel that the Te Ao Māori principles articulated in *Taumata Teitei* (kaitiakitanga, manaakitanga and whanaungatanga*)* are aligned with sustainability, as is the concept of whakapapa. In our view, sustainability is about *relationships*, *honouring life and the planet,* ensuring *continuity into the future,* and *practical outcomes* such as tangible reductions in our institution's waste and greenhouse gas emissions.

4 Approach and Consultation Journey

This section outlines the leadership and composition of our working group and the core features of our approach. It then details the faculty consultation workshops we conducted in 2021 and briefly summarises our findings on current practices and major gaps.

4.1 Working group members

The Sustainability Working Group is led by Niki Harré (Science), Alistair Woodward (Medical and Health Sciences), Alys Longley (Creative Arts and Industries), Jaime King (Law), and Charlotte Blythe (Science, formerly Sustainability Office). It currently includes the following members:

Business: Rachel Wolfgramm, Hanoku Bathula, and Lesley Gardner

Arts: Daniel Hikuroa and Linda Tyler

Creative Arts and Industries: Barbara Ribeiro and Gabriela Baron

Education and Social Work: Sally Birdsall

Engineering: Andrea Kolb, Assad Shamseldin, Cody Mankelow, Febelyn Reguyal and Rolando Orense

Medical and Health Sciences: Seb Barfoot and Gigi Lim

Science: Jacqueline Beggs, Joe Fagan and Andrea Mead

Sustainability Office: Ayden Fuller

Ranga Auaha Ako: Stephanie Reid

4.2 Our approach

As noted, we offer an aspirational vision for education for sustainability at Waipapa Taumata Rau | University of Auckland based on *Taumata Teitei*; map current practices and gaps; and recommend structures and initiatives to take the University forward. In addition to advising on the CFT Programme, we are part of the development team for the University's Sustainability Strategy.

Our approach has involved internal faculty consultation and information gathering, as well as looking at trends in the tertiary education sector nationally and internationally. We have worked closely with other CFT working groups, including the Transdisciplinarity, Innovation and Entrepreneurship (TIE) and Learning and Teaching Delivery Framework (LTDF) , and have had input into the proposed refreshed Graduate Profile.

Our leadership team meets weekly and holds sessions with the wider working group approximately monthly. In these sessions, we have defined sustainability and our priorities, co-designed our faculty consultation process, shared inspiring models from other institutions, and gathered feedback on key governance, curriculum and student experience proposals.

Our Sustainability Working Paper, available on request, captures our proposals and has comprehensive appendices detailing our consultation and research findings. We have presented two Sustainability webinars (December 2021 and April 2022) to update University staff on our progress and to answer questions.

4.3   Consultation workshops

In September and October 2021, we held four consultation workshops with approximately 125 staff from across the University's eight faculties. Workshops began with an overview of the CFT process, the priorities of our working group, and the Sustainability Strategy development process, followed by brief talks showcasing sustainability initiatives within the faculties concerned. There were 18 faculty talks in all (see Appendix A for the titles and speakers).

In breakout rooms, input was sought on how the University might look in ten years if sustainability was a key feature (visioning), and how we might get there (practical proposals), with the following areas as discussion prompts: Teaching, Research, Engagement, and Operations.

This gave us information on current sustainability teaching across the University and provided numerous ideas for progress. The workshop participants were automatically added to a Sustainability Community of Interest (COI), with a Sympa email distribution list. The COI receives updates on key developments in the CFT Programme and Sustainability Strategy development process. All staff and doctoral students are welcome to join the list at any time.

4.4   Current practices and major gaps

Our consultation workshops showed there is significant sustainability education occurring in almost all faculties. Some noteworthy examples include:

- A three-part Sustain Module currently available to Arts and Science undergraduates, with the Sustain 100 course *Sustainability and Us* available in General Education

- A suite of Introductory Lectures on sustainability topics under development for undergraduate, postgraduate, and executive Business School programmes

- A cross-university General Education course, Global 101, *Global Issues, Sustainable Futures*, led by Engineering

- A project on sustainable laboratories in Medical and Health Sciences and a Bokashi composting trial at Education and Social Work

- The New Zealand Centre for Environmental Law, which coordinates the environmental law programme

- A strong emphasis on sustainability and the UN's Sustainable Development Goals (SDGs) in Creative Arts and Industries, particularly in Design, Urban Planning and Architecture

However, there are very few linkages between faculties, and student exposure to sustainability teaching is patchy. Moreover, if a student clicks [“Find a study option”](#) on our website, it is unclear how sustainability fits within the subjects presented, and entering "Sustainability", "Sustainable" or "Environment" as a search term brings up extremely limited options (see Appendix B).

The consultation workshops also suggested there is considerable room for improvement in our on-campus and travel practices, which provide students with a "latent curriculum"; that is, implicit teaching about values and possibilities for community life.

5   Main Focus Areas

Two of our key foci have been building connections with other specialist working groups in the CFT Programme and conducting research into national and international models of sustainability education and the competencies that are nurtured through this. These streams of work are summarised below to provide background to our emerging recommendations.

5.1   Connections with other CFT groups and priorities

Many of our working group leads and members are (or were in 2021) also part of other CFT specialist groups. Alys Longley was on the LTDF group, whose priorities include exploring strategies for relational learning and teaching in our programmes. Jaime King is a lead of the working group on TIE, which has been unpacking the learning contexts that can enable students to develop such capabilities over the course of undergraduate and postgraduate study. Rachel Wolfgramm is also part of the University's Māori Caucus, which focuses on the University's commitment to kaupapa Māori, mātauranga Māori and Te Tiriti. We see these threads: mātauranga Māori, transdisciplinarity, and relational learning as inherent to a quality sustainability experience for students at Waipapa Taumata Rau | University of Auckland.

5.2   Research into models and competencies

Our research into sustainability education in New Zealand and beyond has included three sources of data. We have examined:

1) Formal offerings at other New Zealand universities as detailed on their websites
2) Descriptions of 100+ initiatives that were finalists in the *Green Gown Awards* (Australasia and UK & Ireland) in two categories: *Teaching, Learning and Skills* and *Student Engagement*
3) Academic articles on sustainability competencies

In brief, we have found that sustainability and climate change are clearly shaping formal study options and the student experience in Aotearoa New Zealand and beyond. At the programme level (see Appendix C), the University of Waikato now offers a *Bachelor of Climate Change*, and Victoria University of Wellington offers a *Master of Climate Change Science and Policy*. The University of Canterbury has just launched a *Bachelor of Social and Environmental Sustainability*. The SDGs are also central to some new programmes, such as Massey University's *Master of Sustainable Development Goals*, and the clusters in AUT's Culture and Society core courses within their Bachelor of Arts programme.

Outside formal offerings, sustainability is woven into numerous co-curricular and extra-curricular initiatives. Research into the *Green Gown Awards* revealed a diverse range of programme formats, from small boutique mentoring programmes to massive open online courses (see Appendix D for notable examples). Many initiatives were open not only to students but also University staff, alumni, and members of the public. Several involved strong industry connections and a few had outreach elements with local schools, health practitioners or community members. The leadership of these programmes was also diverse, with some driven primarily by staff and others championed by students. Staff-led initiatives were sometimes led by service divisions (e.g., Career Services, Campus Life or Innovation and Entrepreneurship divisions), and sometimes by academic departments or faculties or combinations of these units. The breadth of offerings outside formal courses demonstrates that there are many avenues for exposing students to sustainability experiences in their time at university and opportunities to educate staff and the public at the same time.

Academic literature points to several competencies that are nurtured by quality sustainability education. A recent study co-authored by Niki Harré (Brundiers et al., 2020), proposed a framework of seven competencies in sustainability in higher education, based on consultation with sustainability educators. These were:

- Systems-thinking (analyse complex problem in current state and history)
- Futures-thinking (create future non-intervention scenarios and craft future sustainability visions)
- Values-thinking (map, specify, apply, reconcile, and negotiate sustainability values)
- Strategic thinking (develop sustainability transition strategies)
- Implementation (implement actions)
- Interpersonal (collaborate in each step of the problem-solving process)
- Integrated problem-solving (apply appropriate problem-solving frameworks and successfully integrate the other competencies)

The authors proposed that values-thinking was a lead competency or orientation to all others. They also noted that the integrated problem-solving competency includes the capacity for interdisciplinarity and transdisciplinarity. These concepts resonate with the teaching philosophies of many of our working group members and broadly align with the refreshed Graduate Profile.

6   Emerging Recommendations

In this section, we present two recommendations. The first is a set of principles we feel are critical for the future of education for sustainability at Waipapa Taumata Rau | University of Auckland. The second is a proposal for a Sustainability Teaching Hub, a structure we believe would support the operationalisation of these principles and foster key partnerships to amplify our contribution to sustainability in Aotearoa New Zealand and beyond.

6.1   Principles for education for sustainability at Waipapa Taumata Rau | University of Auckland

The following principles are drawn from our consultation and research to date and align with the aspirations in *Taumata Teitei*. They include questions to prompt discussion of how to meet these principles.

All students are exposed to sustainability teaching and/or experiences. Sustainability is evident in many programmes, but not all students receive the teaching required to meet the aspirations of *Taumata Teitei* and the proposed refreshed Graduate Profile.

Should some level of exposure to sustainability be offered at a university-wide level and if so, how? Should the responsibility be at the faculty level? What are the staffing, resource and support implications of these options? How likely are each to fulfil the University's aspirations?

Sustainability teaching includes emphasis on developing intra and interpersonal competencies, critical and innovative thinking, and the capacity for collective problem-solving. Developing these will encourage students to feel empowered to take action, participate in social debate and work well with others.

How can we best ensure all students have the opportunity to develop these skills?

Transdisciplinarity is an intrinsic part of sustainability learning. The role of transdisciplinarity is recognised internationally as critical to responding to the 'wicked problems' we face.

How do we draw on the depth and breadth of knowledge and research-based expertise at Waipapa Taumata Rau | University of Auckland to ensure students are exposed to viewpoints beyond their own discipline? How do we provide them with problem-solving opportunities that draw on multiple disciplines and the outside world?

Opportunities to specialise in sustainability are available for all students. Many universities now have degrees related to sustainability, including in New Zealand (see Appendix C).

How can we provide opportunities for more advanced learning? How do we provide transdisciplinary opportunities for postgraduate students?

Waipapa Taumata Rau | University of Auckland visibly demonstrates sustainability efforts in its campuses and operations. Considerable learning happens through observation and practice.

How do we ensure that the University's sustainability efforts are visible to students and beyond? Can we integrate place-based experiences and the design of sustainability solutions for the University into our programmes?

A variety of sustainability learning opportunities exist outside the formal curriculum. Research into other tertiary institutions shows that many encourage and support student-led and staff-led initiatives (see Appendix D). These initiatives have not only helped green campuses, but also reached into the community, sharing the expertise of the University, and giving students work-related opportunities.

How do we support student-led initiatives?

6.2   Key proposal: Sustainability Teaching Hub

Currently, Waipapa Taumata Rau | University of Auckland does not have a centre, or similar, that coordinates and supports university-wide sustainability teaching and related activities. Nor does the University have strong, well-functioning networks to support a transdisciplinarity approach to teaching. In our view, the establishment of a formal Sustainability Teaching Hub is essential for

building staff networks and the capability to operationalise *Taumata Teitei* and the sustainability principles articulated above.

The Sustainability Teaching Hub would develop, facilitate and support *Taumata Teitei's* commitment to "leading transition to sustainable ecosystems" and "being a global leader in sustainable practices through education". It would model the pedagogies and practices required for students (and staff) to "possess an intimate and deep sense of … sustainable practices … demonstrable in their actions and interactions" and would support the aspirations for our graduates to "play leading roles in public debates in matters of relevance to our communities" and to "make the world better tomorrow than it is today".

The hub would ensure sustainability teaching, co-curricular and extra-curricular activities are appropriately coordinated, resourced and supported. It would do this by:

- Connecting sustainability teachers, researchers, and professional staff from key divisions across the University
- Providing professional development to enable academic staff to integrate sustainability topics and into their programmes and courses, and to foster sustainability competencies in students
- Providing resources for sustainability-related teaching in a single location
- Providing a pool of experts for teaching, student engagement and lifelong learning
- Facilitating teaching practices that are in themselves environmentally sustainable, equitable, and emphasise relational learning
- Partnering with key units within the University to develop activities at the intersection of teaching/research/operations/engagement.

The hub ideally would be situated within a research-active, sustainability-focused transdisciplinary entity. It would be based on a 'hub and spokes' model, which combines administrative central roles (hub) with a network of associates (spokes) who are co-located elsewhere, thus helping to ensure sustainability expertise is integrated throughout Waipapa Taumata Rau | University of Auckland. The hub would have a website that facilitates communications, directs staff to resources, and provides information on its purpose and responsibilities. Importantly, the hub would have clear responsibilities related to curriculum development, and joint responsibilities with other units. Below are responsibilities that may be aligned to the hub and would promote the principles proposed earlier.

6.2.1   Curriculum development responsibilities

Wicked problems undergraduate course. The hub could develop a university-wide course with a focus on grand challenges and the innovation and skills needed to respond to these. We recommend that this course be made available to students in all programmes. It will contribute to the transdisciplinary aspirations in the refreshed Graduate Profile and will provide the opportunity to develop relational teaching methods, a core aim of the CFT. It could combine some digital delivery and assessment with in-person small group work and offer considerable flexibility to students in their choice of 'wicked problem' (see Appendix E). This would ideally be a 100-level course to help incoming students develop a strong sense of the distinctive Waipapa Taumata Rau | University of Auckland experience and their belonging to a community that contributes to key public debates.

Sustainability specialisations. The hub could be a central mechanism for developing and promoting sustainability specialisations. It is recommended that these are available to students in all programmes across Waipapa Taumata Rau | University of Auckland, allowing them to have such a

specialisation noted on their transcript. Specialisations may include the following forms, some of which may involve teaching directly provided by the hub:

- **Vertically Integrated Projects (VIPs)**: VIPs are multi-year projects that enable students to participate in and contribute towards to a sustainability-related research team over the course of an undergraduate degree

- **Sustainability modules/courses**: These may be linked courses such as the Sustainability Module available to Arts and Science students

- **Programme-specific specialisations:** The hub could support the development of programme-specific sustainability specialisations, for example by providing resources, professional development or guest lecturers

Lifelong learning opportunities. Opportunities for alumni, University staff and the wider public to advance their learning of sustainability issues and skills could also be managed by the hub. These could take the form of micro-credentials, seminars, workshops, and could be informed by national and international examples (e.g., those profiled in Appendix D).

6.2.2   Joint responsibilities

Doctoral Training Centre. The hub could help develop a sustainability Doctoral Training Centre in partnership with sustainability-related Research Centres. This would include an interdisciplinary network of students and supervisors with opportunities for community and international engagement.

International Partnerships. The hub could play a key role in promoting and supporting international sustainability programmes and initiatives, working closely with the International Office and Office of the Vice-Chancellor. Two examples of existing programmes are the United Nations Climate Change University Partnership Programme, which provides opportunities for masters students to address climate adaptation knowledge gaps in their thesis; and the Association of Commonwealth Universities Climate Resilience Network, which provides opportunities for postgraduate students to attend summer schools related to climate adaptation and community resilience.

Student Engagement. The hub could build strong relationships with student-facing service divisions within the University, such as Campus Life and Career Services, as well as the Auckland University Students Association (AUSA) and sustainability-related clubs and societies. This would enable the co-development of small and large-scale sustainability engagement programmes. The industry and community connections of hub staff and associates could also be drawn on to create exciting new co- and extra-curricular offerings.

A "Living Campus" Approach. This approach views campus spaces as assets for sustainability teaching, research, and engagement. A Living Campus programme could be a joint initiative of the hub, the Sustainability Office and Property Services. It could enable teams of students, professional staff, and academic staff to work in partnership to tackle campus operational sustainability challenges (see an example from the [University of Tasmania](#)). Such a programme would help deliver on Waipapa Taumata Rau | University of Auckland's aspirations for a net-zero carbon status and would equip students with skills for implementing sustainability in their workplaces and careers.

7 Appendices

Appendix A: Faculty Consultation Talks

Arts	Arts Sustainability Group (Anna Ma, Group Services)
	International examples of sustainability education (Manuel Vallée)
Science	Sustain Module (Joe Fagan, Environment)
	Faculty of Science Research Awards (Anna Santure, Biological Sciences)
Business	Business School Introductory Lectures (Rachel Wolfgramm, Management & International Business)
	Sustainable Consumption (Joya Kemper, Marketing)
Law	New Zealand Centre of Environmental Law (David Grinlinton, Law)
Creative Arts and Industries	Building a Design Programme led by purpose: Design and the Natural Environment, Creative Communities and Design Impacts papers (Gabriela Baron, Design)
	Sustainability teaching in the Architecture Technology Stream (Alessandro Premier, Architecture and Planning)
	Urban Planning Courses & Pedagogies for The UN SDGs (Mohsen Mohammadzadeh, Architecture and Planning)
	Transdisciplinary PhD (Alys Longley, Dance Studies)
Engineering	Environmental Sustainability in Higher Education (Asaad Shamseldin, Civil & Environmental Engineering)
	Integrating Sustainability into Engineering Design (Cody Mankelow, Civil & Environmental Engineering)
Education and Social Work	Sustainability at EDSW (Sally Birdsall)
Medical and Health Sciences	Sustainability in the Lab (Seb Barfoot, Anatomy and Medical Imaging)
	Sustainability in Education – examples from FMHS (Alistair Woodward, Epidemiology and Biostatistics)
	Food Sustainability and Health in FMHS (Sally Mackay, Nutrition)

Appendix B: Current Website Architecture

Find a study option list	Business and commerce
	Education and teaching
	Engineering and construction
	Fine arts, design and architecture
	Health, medicine and biomedical sciences
	History, literature and philosophy
	Languages, cultures and globalisation
	Law and justice
	Māori, Pacific and indigenous worlds
	Media, music and performing arts
	Science and mathematics
	Society, politics and people
	Technology and innovation
Search term: Sustainability	Zero results
Search term: Sustainable	Two results
	Global Environment and Sustainable Development (UG subject)
	Sustainable Design (PG subject)
Search term: Environment	Seven results
	Master of Environmental Science (PG degree)
	Environmental Change (UG subject)
	Environmental Engineering (PG subject)
	Environmental Law (PG subject)
	Environmental Management (PG subject)
	Environmental Science (UG and PG subject)
	Global Environment and Sustainable Development (UG subject)

Appendix C: Noteworthy Curricular Offerings at Other New Zealand Universities

Type	Offering and Institution
Undergraduate degrees	Bachelor of Social and Environmental Sustainability (Canterbury) Bachelor of Climate Change (Waikato) Bachelor of Resource and Environmental Planning (Massey) Bachelor of Environmental Studies (Victoria) Bachelor of Sustainability and Outdoor Education (Ara)
Postgraduate degrees	Master of Science in Environmental Science (Otago) Master of Management (Sustainability) (Massey) Master of Sustainable Business (Otago) Master of Resource and Environmental Planning (Massey) Master of Sustainable Development Goals (Massey) Master of Climate Change Science and Policy (Victoria) Master of Management and Sustainability (Waikato)
Certificates / diplomas	Graduate Certificate in Business and Sustainability (Lincoln) Graduate Certificate or Diploma in Management and Sustainability (Waikato) Graduate Diploma in Sustainable Practice (Ara) Graduate Diploma in Professional Practice in Sustainable Practice (Otago Polytechnic) Certificate in Environmental Sustainability (Pūtake Taiao)
Majors / minors / core courses	Sustainable Tourist Management (AUT) Design for Sustainability (AUT) Culture and Society core BA courses based on SDG themes (AUT)

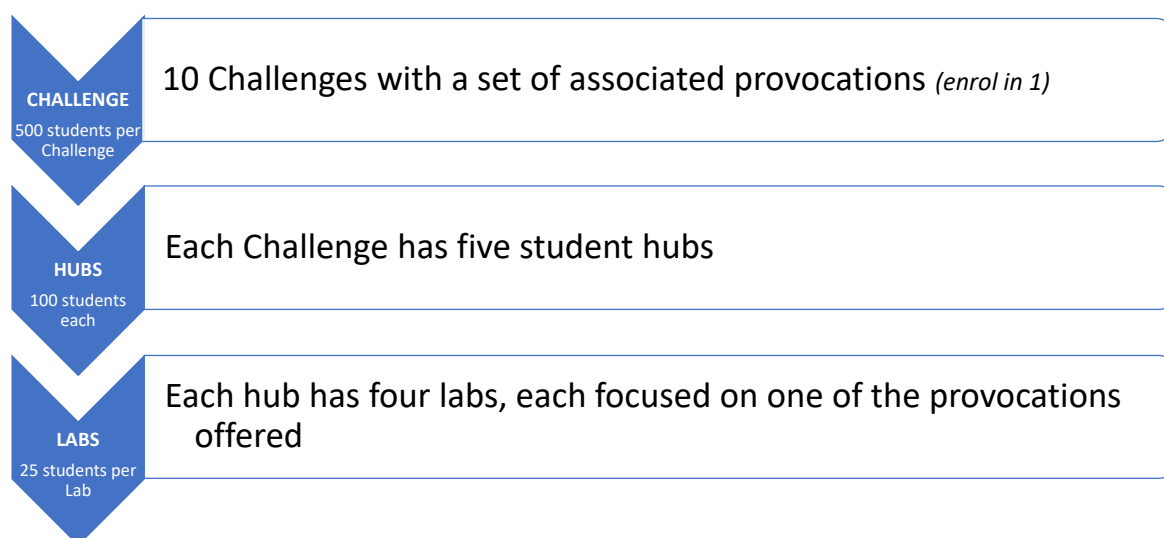## Appendix D: Noteworthy Initiatives Discovered Through Green Gown Awards

Type*	Project name and Institution
Compulsory undergraduate courses (C)	Working together on 'wicked problems' (Anglia Ruskin University, UK)
Compulsory course within sustainability majors (C)	Creating Sustainable Futures (Deakin University, Australia)
Sustainability Art Prize (Co)	Sustainability Art Prize (Anglia Ruskin University, UK)
Postgraduate think tank (Co)	Third Generation Project (University of St Andrews, UK)
Hackathons and idea labs (EC)	C15 Hack, C16 Design Hack (University of Melbourne, Australia) Students as Change Agents (University of Edinburgh, UK)
Open Online Courses (EC)	Oxford School of Climate Change (University of Oxford, UK) Sustainable Futures online course (University of Bristol, UK)
Service and leadership (EC)	Victoria Plus Programme (Victoria University of Wellington, New Zealand)
Abroad programmes (EC)	Vietnam United Nations SDGs Study Tour (RMIT University, Australia)
Engagement programme (EC)	Green Impact (Many institutions) Green Your Scene (University of Otago, New Zealand)
Behaviour change apps (EC)	Take One Step (Monash University, Australia) Gamifying Climate Action for mass engagement (Nottingham Trent University, UK)
Student societies (EC)	Adelaide Sustainability Association (University of Adelaide, Australia) Oxford Climate Society (University of Oxford, UK)

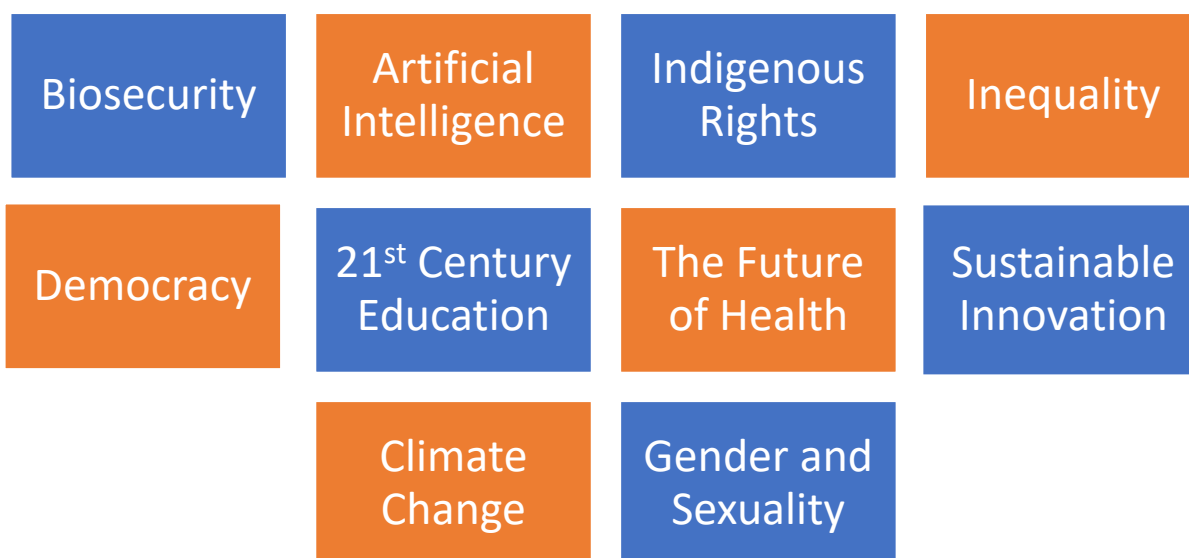| Type*	Project Name and Institution
Living laboratory / Operational focused programmes (Often EC, sometimes Co and C elements)	Sustainability Integration Programme for Students (SIPS) (University of Tasmania, Australia)
	Crowd research for a more sustainable campus (Nottingham Trent University, UK)
	Source Community Wholefoods (University of Tasmania, Australia)
	Plastic Free LSE (London School of Economics and Political Science, UK)
	Fair Food Challenge (University of Melbourne, Australia)
	He Kāika Toitu, he Kāika ora: The Sustainability Neighbourhood (University of Otago, New Zealand)
	Nurture and Grow: Connecting people through nature (Queen's University Belfast, UK)

*C denotes curricular, Co denotes co-curricular, and EC denotes extra-curricular initiatives.

Potential Structure for 5,000 students:

CHALLENGE 500 students per Challenge	10 Challenges with a set of associated provocations *(enrol in 1)*
HUBS 100 students each	Each Challenge has five student hubs
LABS 25 students per Lab	Each hub has four labs, each focused on one of the provocations offered

Possible Challenges:

Biosecurity	Artificial Intelligence	Indigenous Rights	Inequality
Democracy	21st Century Education	The Future of Health	Sustainable Innovation
	Climate Change	Gender and Sexuality	

Possible Provocations for Climate Change:

- Is climate change inevitable under capitalism?

- Can technology save us from climate change?

- Are there just too many people?
- Should international travel be rationed?