PART 1: BACKGROUND

To put the Australian National University (ANU) on a sustainable financial footing from 2021, the ANU Council approved the development of the ANU Recovery Plan, designed to address the University's strategic and financial challenges. The Recovery Plan outlines how ANU will meet its current and future financial obligations and achieve our strategic objectives as outlined in the *Australian National University 2017-2021 Strategic Plan*, with sustainable, stable, and secure financial foundations. The ANU Recovery Plan outlines how we will continue this trajectory and reduce our size with a smaller student cohort; and in parallel, a smaller staffing profile.

The challenge for 2021 and beyond is to ensure the ongoing ability for the ANU to operate within our highly constrained projected revenue. It is not good enough just to survive the pandemic; we must thrive and help provide the building blocks for national recovery. The core outcome of the ANU Recovery Plan is that the ANU must close a remaining financial gap of $103 million per annum from 2021. This requires savings in both non-salary and salary expenditure and will require a reduction of positions across the University.

The Reimagine Investment in the College of Engineering and Computer Science (CECS), approved by ANU Council in December 2018, was a response to a cleareyed assessment of the growing importance of engineering and computing to Australia's future and the legacy of underinvestment in the area at ANU. Designed to unfold over 15 years, the $350 million financial supplement was intended to strategically grow the faculty, strengthen the capacity for distinctive world-class teaching, research, and translation, and diversify the portfolio of activities and external engagements. In the first 18 months, the College was tracking to our budget forecasts and goals.

Today, the ANU still seeks to become one of the most influential and progressive voices for engineering, computing, and the use of technology in the world. That objective lies at the core of the mission of the College, but how we achieve the objectives set out will need to change due to COVID-19. The world around us has continued to evolve; and our declining place in global rankings schemes, declining student satisfaction and uneven enrolment numbers all pointed to the need for rejuvenation.

It is clear that how the College achieves the remaining Reimagine objectives will need to change. There have been many external changes in 2020, from the economic fallout of the pandemic, closure of borders and the Commonwealth Government announcing changes to university funding models in June 2020. Those changes impact all of ANU, and they will likely have a impact on the "Engineering" field of education and will force a transition to a lower cost base.

It is expected there will be an increase in 2021 of funding for the Colleges and the Research & Innovation Portfolio as a result of the increase to the Research Support Package (RSP) announced in the 2021 Federal Budget on 6 October 2020. Subject to the rules to be set by the Government it is likely ANU will spread this funding over both 2021 and 2022 with a clear focus on using the funds for approved research support costs.

It is important to note that the RSP represents a one-off injection of funding and is not an ongoing fundamental change to our financial position – our 2021 revenue projections remain otherwise unchanged and we will still need to pursue savings across our salary expenses. The nature of any one-off increase in funding and how it can be accessed and applied within the College planning will be confirmed as soon as the terms and details of the funding package are confirmed.

The impact of all these changes on CECS will be profound. The College has a revised 2020 recurrent budget allocation of $55 million and a target 2021 recurrent budget allocation of $53.3 million. This is a further saving of $1.7 million on the revised 2020 budget and more than $13 million compared to the 2021 allocation originally approved under the Reimagine business case. The targeted savings will be identified through a reduction in salary (50%) and non-salary costs (50%). To date, 17 colleagues from the College have accepted a voluntary separation. Though this has contributed to the savings target, the College will require a reduction of up to a further 19 positions to achieve the required savings and expects to need to recruit 15 positions in new focus areas. This will be a net reduction of 21 positions across the College. The College will build on salary savings achieved through voluntary separations, natural attrition, position controls and the controls introduced in 2020 around non-salary expenditure.

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As part of the ANU Recovery Plan 2020, CECS is proposing a reorganisation to deliver the strategic objectives of the ANU and the College and make the necessary adjustments to reduce the College costs to operate within the budget confirmed in the 2020 ANU Financial Health Strategy.

A holistic restructuring of CECS with three broadly defined new schools and a transformed professional and support services is being proposed. By reducing the organisational complexity and size, it will be possible to have a consistent and resourced focus.

This proposal (herein referred to as the Change Proposal) outlines the challenges we face and how we must adapt to our new circumstances; it also includes rationale for the proposed organisational change and nature of the changes proposed within CECS. It sets out specific details and information on the proposed changes within CECS and seeks consultation and feedback on the proposed changes as well as providing the guiding principles which will support any confirmed changes that may need to be implemented.

The objective of the Change Proposal is to outline and consult on the proposed changes in CECS to enable to respond to the ANU Recovery Plan and to enable the College to emerge strongly from the current global pandemic. The proposed changes are business driven changes and are designed to support ongoing sustainability of our education and pedagogy and ensure that the College is meeting the future needs of our students, as well as placing the University strongly in the global market.

The Change Proposal specifically relates to proposed changes across the whole College and includes an indicative timetable for consultation, feedback, and implementation.

PART 2 : RATIONALE FOR CHANGE

The refresh and adjustment to the structure and operations of CECS is proposed to support the strategic aims of the College and the ANU Recovery Plan. The proposed changes will reorganise activities and staffing of the College to align with refocused institutional priorities and constraints.

Our changed circumstances in 2020

As is true at the whole-of-university level, CECS will need to contemplate possible realignment of resources, including further reductions in some activities to make room for strategic priorities and consequential different positions. Current revenue projections for the ANU in 2021 to 2023 are largely flat, and the ANU Recovery Plan places a focus on:

- Our renewed compact with the nation;
- An education-led recovery, especially focusing on hybrid education, micro-credentials, excellent student experience;
- Alignment and investment in First Nations;
- Translation of research, impact beyond academia;
- Inclusion and diversity;
- New revenue streams, resulting in need for strong engagement and business development; and
- Excellence and investment in emerging academic areas as needed.

Explicit investments are needed within the College to complement and enhance university-level investments in those priority activities This all needs to be achieved while reducing recurrent expenditure by more than $8 million compared to plans for 2020. This will require re-allocation of resources from existing activities, operating more efficiently, and choosing activities where we can excel at scale from a lower cost base.

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Figure 1: Financial summary of CECS

Consolidated Financials (Recurrent 'R' Funds Only)	2017 $'000	2018 $'000	2019 $'000	2020 Budget*** $'000	2021 $'000	2022 $'000	2023 $'000
Actual income	41,476	49,466	60,731	62,502			
Actual expenses	(31,613)	(38,282)	(47,114)	(66,147)			
Investments	3	9	(5)	-	-	-	-
Actual net operating result	**9,863**	**11,184**	**13,612**	**(3,645)**			
Business case income			49,396	54,945	61,372	69,137	77,557
Business case expense			(59,643)	(76,366)	(79,492)	(90,686)	(99,365)
Business case net operating result			**(10,246)**	**(21,421)**	**(18,120)**	**(21,549)**	**(21,808)**
Actual* excluding transfers			44,369	61,580	53,350	53,350	53,350
Business Case expense exluding transfer**			(50,100)	(64,147)	(66,773)	(76,177)	(83,466)
Expenses vs business case			**(5,731)**	**(2,567)**	**(13,423)**	**(22,827)**	**(30,116)**

* includes all accounts under CECS control
**estimate based on historic expenditure patterns of 13-16% transfers
***budget as at start of 2020

Figure 1 summarises the financial status of CECS. It makes clear that CECS has started the process of expanding and repositioning. Operating surpluses in 2017-19 have been due largely to academic staff numbers in computer science lagging behind significant increases in student numbers, as well as prudent management of strategic investments.

For CECS, the years 2020-2023 were intended to be those with the greatest University-led investment, as indicated in the Business case net operating result in Figure 1, to ramp up new areas and strengthen existing ones to achieve the goals of the approved Reimagine plans.

CECS started 2020 in a strong financial position, but the gap between expenditure in 2021 and budgeted expenditure for 2020 is around $8.2M. The gap between expenditure in 2021 and the Reimagine business case is around $13M in 2021, growing to $30M in 2023 (with a cumulative under-investment of $65M compared to plans in the years 2021-23). Based on financial issues alone, it is not possible to contemplate proceeding as previously planned, or with only minor adjustments to those plans.

It is very clear that local and global economic and societal contexts have fundamentally changed, and so we must adapt with it to survive. The task at hand is to contribute to the strategic objectives of the *Australian National University 2017-2021 Strategic Plan*, the *CECS Strategic Intent 2019-2025* [1], and the specific priorities articulated in the ANU Recovery Plan, with a sustainable, stable and secure operating model built on a sound financial footing.

What that means for the future

The Vice-Chancellor and ANU Council require a strategic response to the changed external environment so that the College remains aligned to the university strategic priorities. The task set for CECS is to achieve as much as possible of Reimagine, given significantly reduced resources and the changed external environment.

In July 2020, the Vice-Chancellor and Dean of CECS convened an external advisory panel to provide strategic advice on navigating the impact of the pandemic on the Reimagine plan. The external advisory group consisted of four nationally recognised thought leaders and technology leaders relevant to the activities and

[1] The CECS Strategic Intent Document is available here: https://cecs.anu.edu.au/sites/default/files/strategic_intent_2019.pdf

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mission of CECS: David Thodey (Chair of CSIRO and former CEO of Telstra), Christopher Pigram (former CEO of Geoscience Australia), Jane den Hollander (former Vice Chancellor of Deakin University), and Tanya Monro (Australia's Chief Defence Scientist).

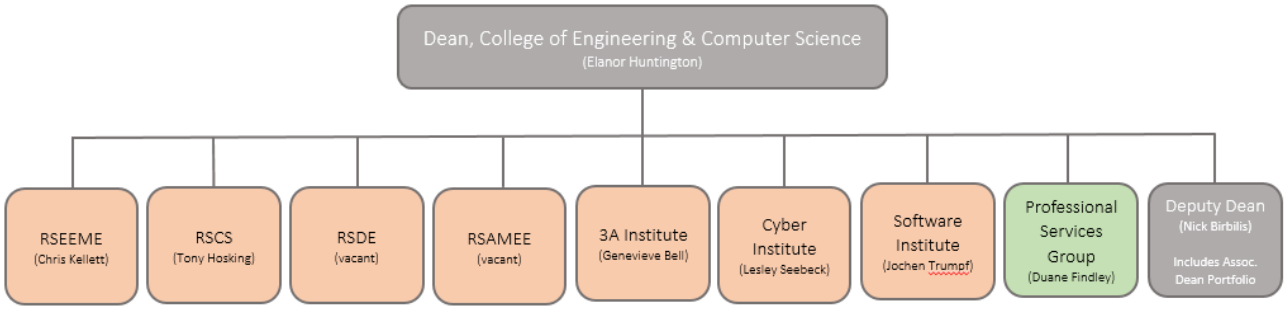
Their high-level advice has been that the external environment within which CECS operates, along with the need to readjust budgets, suggests that radical rather than incremental change is required. They believe there will need to be very careful selection of those areas where the College will focus energy and work. These will need to be unique, with both national and international focus. There will also need to be much tighter control of the relationship between resources invested and outcomes sought. In short, business as usual will be insufficient as a response to an emerging future.

The external environment has increased the rate of change and strengthened the forces of structural change that were the original motivation for the Reimagine Investment. The resources available to manage this change have decreased. CECS needs to achieve transformation in response to a changed strategic environment, a smaller and different resource base, and without an injection of additional resources to underwrite the transition that was needed anyway. With such significant financial headwinds and a changed operating context, it appears necessary to streamline and focus resources around a smaller set of key strategic activities where the College can have a disproportionate impact.

CECS at the start of 2020

In line with the Reimagine business plan, the College had a very heterogeneous resource portfolio at the start of 2020. That included two large foundation schools (the Research School of Electrical, Energy and Materials Engineering—RSEEME—and the Research School of Computer Science—RSCS) and a large centralised administrative organisation (known as the Professional Services Group—PSG); two new, negligibly sized, schools (the Research School of Aerospace, Mechanical and Environmental Engineering—RSAMEE—and the Research School of Design Engineering—RSDE) that were due to commence significant growth in 2020-2021; and three innovation institutes (Autonomy Agency and Assurance Innovation Institute – 3Ai, Cyber Institute – CI and Software Innovation Institute – SII) which are explicitly scoped as start-up like entities of finite lifetime (see Figure 2). The current distribution of resources amongst the units within CECS is complex and uneven, and reflect a variety of histories, strategies, and legacy artefacts.

Figure 2: Present-state organisation chart of the College.



CECS has experienced a significant reduction in the financial resources that would otherwise be used to underwrite transformation. With such significant financial headwinds, it is necessary to seek efficiencies—both within the College and across ANU—and focus resources on a smaller set of key strategic activities where the College can have a disproportionate impact. The university-wide focus of sustainable revenue models and the critical importance of teaching to our future requires a different format.

The organisational design, structure, and current scale of the College present holistic organisational and financial challenges in the face of disruption to student revenue streams and recurring education challenges in one of the foundation schools.

A snapshot of the current Academic Organisational Units (AOUs) and the Professional Services Group (PSG) is given in Figure 3.

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Figure 3: Brief synopsis of the CECS AOUs and PSG as at October 2020

AOU	Start date	Programs, etc.	Current Status
RSEEME	Founding Research School of Engineering, renamed to RSEEME in 2019.	B Eng (Biomed, Elec & Comm, Photonics, Mech & Material, Mechatronics, Renewable Energy) (also R&D) Humanitarian Engineering Minor M Eng (Electrical, Mechatronics, Digital Systems & Telecommunications, Renewable Energy, Photonics) G Cert Machine Learning & Computer Vision M Machine Learning & Computer Vision	School (and its predecessor) has been in a deteriorating financial position since 2017. Student numbers have been declining and the cost base has increased. School review in 2019 indicated cultural issues and identified lack of internal engagement; also indicated excellence in education lacking. Limited to no visibility in global rankings in some areas. (See Appendix Two)
RSAMEE	Founded 2020, start-up phase. No Director.	B Eng (Enviro) *New major has been proposed to AQAC for commencement in 2021*	School has no revenue stream at present. The School is a source of expenditure during start-up as per Reimagine Business Plan. School was to become the centre of mass for mechanical engineering, inheriting that from RSEEME and to start up environmental and space engineering.
RSCS	Founding Research School of Computer Science.	B IT (3-year) B IT (Hons) (1-year) B Adv Comp (Hons) (4-year) B Adv Comp (Hons) (R&D) 4-year B Software Eng (Hons) (4-year) B Applied Data Analytics (3-year) B Applied Data Analytics (Hons) (1-year) Dip Computing (1-year) G Cert Applied Data Analytics (0.5-year) G Cert Data Engineering (0.5-year) G Dip Applied Data Analytics (1-year) G Dip Computing (1-year) M Applied Data Analytics (1.5-year) M Comp (2-year) M Comp (Adv) (2-year) MPhil (2-year) PhD (4-year)	Rapid growth in student numbers without concomitant rise in faculty numbers since 2016; ongoing diffuse organisation. chool review in 2016 identified lack of engagement and the need to improve school-level academic standing. Low in rankings globally. (See Appendix Two)
RSDE	AOU exists as of 2019. Presently the AOU is not populated.	*N/A*	*N/A*
CI	Conceived in 2017, commenced operations in 2018.	*N/A*	Revenue and revenue projections were incompatible with the cost base—deeming CI unable to continue in the present fiscal climate. Transition to a virtual institute from July 2020.
SII	Founded in 2019 based on a 'teaching hospital' model for experimental education	*N/A*	Institute is early in its journey. It has secured numerous research contracts (Cat 2-4), contributing strongly to education programs previously the sole domain of RSCS.
3Ai	Founded 2017 to establish a new branch of engineering to take AI safely, sustainably, and responsibly to scale.	M Applied Cybernetics (1.5 year) PhD (4-year) Micro credential program (co funding—MSFT, Menzies Foundation)	In second stage start-up phase. Emerging Cat 2-4 funding strengths. Educational programs have had strong interest and strong alignment to diversity goals of the University. Brand and reputational success.
PSG	Covers a broad range of administrative functions for the	*N/A*	The size of the PSG was grown substantially through 2019 in anticipation of a significant growth of the college. It is a large unit/function that is a significant

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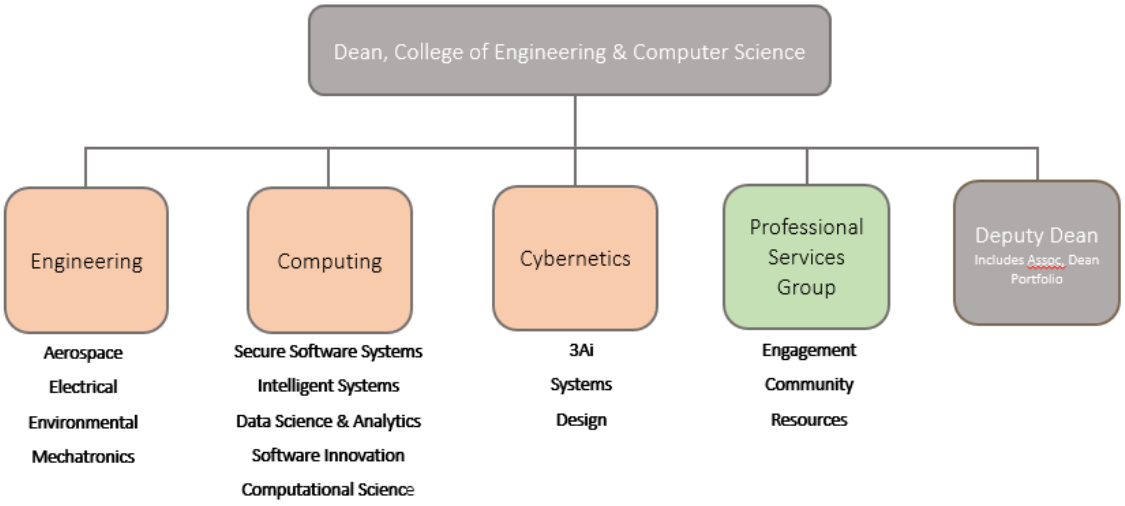
AOU	Start date	Programs, etc.	Current Status
	College and its AOUs; ranging from HR, Marketing and Student Services.		cost in its present structure. This scale (and ratio of recurrent cost) is unviable in the expenditure control environment.

A new operating model

A holistic restructuring of CECS with three broadly defined new schools and a transformed PSG is proposed. By reducing the organisational complexity and breadth of activity, it will be possible to have a consistent and resourced focus. A three-school approach allows the College and its organisational units to manage resources in a more deliberative and concentrated way, as well as allowing a rationalisation and streamlining of support functions. Each School would be built on a model of focussed impact and outputs across education, research, and engagement. Such schools would be explicitly more than "research schools", and the staff profiles would reflect this change.

The three new proposed Schools would each have a defined set of focus areas, or activity clusters—allowing for the concentration of resources and activities, and consequently increasing the potential for meaningful impact from a lower cost base (see Figure 4). These proposed activity clusters for each School are described in Appendix 1. This would allow education, research, and engagement activities to be consolidated onto concentrations of excellence, while also providing cross-cluster, cross-School and cross-College alignment and coordination and serving the university more broadly. The proposed new schools and their activity clusters would carry forward two of the CECS Innovation Institutes with a subset of the activities planned for the two new Schools. They would build on traditional and emerging strengths of the College and resource the new activities identified in the ANU Recovery Plan.

Figure 4. An activity cluster approach for the proposed new Schools in the College



In addition to concentration of academic activity, the streamlined structure would mean that AOU-level support services could be consolidated and coordinated, leading to efficiencies of scale, improvements in level of local support and improved professional staff career paths throughout the College. Moving forward, a more structured and homogeneous distribution of total resources is proposed, with a phased approach, starting with a short consolidation phase (2020-21), before a longer stabilisation period.

The anticipated 2025 end-state resembles the underlying intent of the Reimagine Investment, although in the new plan this takes shape in three schools, rather than four, and consolidates onto a smaller set of activities that have the potential to achieve ANU strategic objectives with the resources available.

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Transition to sustainability

The CECS community made considerable sacrifices to contribute to the whole-of-university savings achieved by ANU in 2020. Collectively, we managed to replan and save several million from recurrent funds in 2020. Those savings included:

- Pivoting the Cyber Institute to a virtual institute;
- Closing the Reimagine Project Management Office;
- Freezing travel;
- Ceasing consulting contracts, except where required to maintain operations;
- Deferring capital expenditure;
- Cancelling planned events (e.g., conferences, workshops, retreats);
- Reductions in consumables and equipment;
- Frozen discretionary professional development accounts; and
- Deferring planned hires.

Those ad-hoc expenditure reductions have had significant impact on the workload and working conditions of our staff, the experience of our students and the security of our casual staff. There was also a significant slow-down in research and translation activity. Staff in key areas of CECS also made significant and unfunded contributions to the new Graduate Certificates to restore university revenue.

Going forward, it will be important to restore a balance of salary to non-salary expenditure compared to 2020. Most notable will be a targeted resumption of casual sessional academic support for high student-staff-ratio situations, for a high quality of experience for staff and students.

The following measures will need to be put in place for the foreseeable future to reduce the salary savings required:

- Limited allowance for travel;
- Reducing the number of courses on offer to reduce expenditure on teaching consultants and contractors; and
- No provision for capital expenditure except where required for WHS, maintenance or as contributions to research/education activities.

As previously indicated, explicit investments are needed within the College to complement and enhance the university-level investments in priority activities. This all needs to be achieved while reducing annual recurrent expenditure over the savings already achieved. This will require re-allocation of resources from existing activities, operating more efficiently, and choosing activities where we can excel at scale from a lower cost base.

PART 3: THE NATURE OF THE CHANGE

The nature of the proposed changes to CECS are to focus activities within the College into a smaller number of Academic Organisational Units (AOUs) and to streamline their activities. The current and proposed organisational structure for the College is included in Appendices 3 and 4.

The proposed changes would disestablish each of the current school-level AOUs (Schools and Institutes), reorganise the Professional Services Group, and establish new Schools. The Innovation Institutes 3Ai and SII would be encapsulated within the new Schools, to preserve their hard-won capabilities and to inoculate the new Schools with embedded innovation activities.

It is foreseeable that the impact of this proposal will involve:

- The disestablishment of 7 AOUs (i.e. 4 Reesarch Schools and 3 Institutes);
- The establishment of 3 AOUs (i.e. 3 Schools);
- The reorganisation of the College professional support services;
- Development of a teach out plan for programs impacted by College, Research School and Institute changes;

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- The direct transfer of one (1) Dean position;
- The direct transfer of one (1) Deputy Dean position;
- The direct transfer of two (2) Research School Director positions;
- The direct transfer of one (1) Institute Director position;
- The direct transfer of 23 continuing academic positions;
- The direct transfer of 18 tenure track and ongoing position program academic positions;
- The direct transfer of 16 continuing (contingent funded) (CCF) academic positions;
- The direct transfer of 118 fixed term academic positions;
- The direct transfer of 55 continuing professional staff positions;
- The direct transfer of nine (9) continuing (contingent funded) professional staff positions;
- The direct transfer of 56 fixed term professional staff positions;
- Transition arrangements for affected staff including permanent transfer, redeployment, transition to a fixed term or fixed term per-retirement agreement and voluntary separation;
- The disestablishment of up to 14 continuing academic staff positions; and
- The disestablishment of up to five (5) continuing professional staff positions.

Changes may also include a change in reporting or supervisory lines for some staff and positions; a change in work practices for some staff; reorganisation of teams, and/or a change in conditions, including change that would be likely to lead to changed responsibility levels.

Summary of School and Institute Changes
Underpinning the proposed redesign and reorganisation of the College is the intent to build coherent clusters of excellence in education, research, and engagement and establish critical mass and continuity sufficient to compete in those activities on the world stage. Each of the proposed new Schools encapsulate activities that already have some activity at that level in the College, but which need further strengthening to achieve impact.

It is proposed that each of the new Schools - Computing, Engineering, and Cybernetics - will comprise a mix of early career academics (ECAs), mid-level career academics and academic leaders in their field.[2] This is considered important to provide career development and succession planning, and to ensure the long-term success of each school across education, research and engagement.

School of Cybernetics
The proposed new structure for the School of Cybernetics is shown at Appendix 5.

It is proposed that the Academic profile of the new School will comprise a mix of early career academics (ECAs), mid-level career academics and academic leaders in their field. This is important to provide career development and succession planning and to ensure the long-term success of the School.

It is proposed the School continuing academic staff profile will be the following:

- One (1) continuing academic position at Level A, level B or Level C within the 3Ai cluster;
- One (1) continuing Academic position at Level D or Level E within the 3Ai Institute cluster;
- One (1) continuing Academic position at Level C for Educational Experiences Lead;
- One (1) continuing Academic Level E for Systems Lead;
- One (1) continuing academic position at Level A, Level B or Level C within Systems cluster;
- One (1) continuing Academic Level E for Design Lead; and
- One (1) Distinguished Professor, Level E3.

[2] For the avoidance of doubt, the academic level will be taken at the census date of 8 October 2020.

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Directly Transferred Positions within the proposed structure
It is proposed the following positions will be directly transferred from 3A Institute into the new School of Cybernetics structure. All of the positions proposed to be directly transferred are being transferred at level (see Figure 5).

- Distinguished Professor, level E3;
- All ANU Futures, ANU Entrepreneurial and ANU Translational Fellows academic positions;
- All Continuing Contingent Funded (CCF), Fixed term and Tenure Track academic positions;
- All 3A Institute continuing academic positions;
- All continuing and fixed term professional staff positions;

Any remaining vacant positions to be filled via internal Expression of Interest (EOI) and standard recruitment processes as outlined in Staffing principles detailed in Part 4 below.

Figure 5: Continuing positions to be directly transferred to the proposed new School of Cybernetics

Current Position Title	Proposed Position Title	Number of positions
Director 3A Institute	Director, Cybernetics and 3Ai Institute	1
Professor (and Deputy Director)	Professor (and Deputy Director)	1
Fellow	Fellow	1
Fellow	Educational Experience Lead	1
Engagement & Impact Lead Manager	Engagement and Impact Lead	1
Institute Manager	Operational Excellence Lead	1
TOTAL		**6**

New Positions within the proposed structure
Strategic Services Lead, Senior Manager 2 OR Academic Level D or E (one position). This proposed new position is recommended to be classified at SM2 or Academic D/E depending on the profile of the preferred candidate. This role will provide intellectual and managerial leadership for the School of Cybernetics to achieve the strategic objectives of establishing and maintaining a highly functional school. The key accountability and responsibilities for the role are:

1. Provide high level strategic planning and leadership to support the set up and operation of the school with a focus on building out the operational excellence, engagement and impact and education experience teams.
2. Facilitate the design, implementation and iterative development of research, education and engagement directions, governance and business strategies in collaboration with the senior leadership team.
3. Lead and support School, College and ANU strategic initiatives and partnerships collaborating with a broad range of stakeholders.

Educational Development – hybrid professional staff or junior academic positions (up to three positions). These proposed new positions are recommended to be classified at ANU5, 6/7, 8 or Academic A/B/C depending on the profile of the preferred candidate. This role will be a catalyst for developing and implementing strategies to deliver transformational educational experiences. The key accountability and responsibilities for the role are:

1. Collaboratively develop and improve content delivery media, pedagogical approaches and learning modalities.
2. Coordinate and participate in the creation of teaching materials and the delivery of educational experiences
3. Engage and integrate activities across a range of educational offerings.

Systems Lead, Academic Level E (one position). This proposed new position is recommended to be classified at Academic Level E. This role will provide leadership to the Systems activity cluster, with a view to build on ANU's distinctive history as a centre for systems thinking, providing critical skills to industries and sectors working with complexity. The key accountability and responsibilities for the role are:

1. Support the establishment of innovative, interdisciplinary, outwardly-focused programs blending education, research and engagement;
2. Support the development of partnerships with industry and engage with the wider research community to embed progressive engineering and computing research and education capabilities;

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3. Contribute to development of modern, unique programs that are globally relevant to equip our students with diverse and multidisciplinary skills.

Junior Academic (Systems), Academic Level A/B/C (one position). This proposed new position is recommended to be classified at an Academic Level A/B/C. This role will contribute to education, outreach and research within the systems activity cluster in the School of Cybernetics. The key accountability and responsibilities for the role are:

1. Take part in high impact collaborative and cross-disciplinary research and creative works.
2. Provide support to the educational activities of the activity cluster and school.
3. Provide support to the engagement and impact activities of the activity cluster and school.

Design Lead, Academic Level E (one position). This proposed new position is recommended to be classified at Academic Level E. This role will provide leadership to the Design cluster, with a focus on identifying, articulating and growing a first-of-its-kind design competency with the School of Cybernetics. The key accountability and responsibilities for the role are:

1. Support the establishment of innovative, interdisciplinary, outwardly-focused programs blending education, research and engagement;
2. Support the development of partnerships with industry and engage with the wider research community to embed progressive engineering and computing research and education capabilities;
3. Contribute to development of modern, unique programs that are globally relevant to equip our students with diverse and multidisciplinary skills.

School of Computing

The proposed new structure for the School of Computing is shown at Appendix 6.

It is proposed that the Academic profile of the new School will comprise a mix of early career academics (ECAs), mid-level career academics and academic leaders in their field. This is important to consider and support clusters within new Schools but also diversity and excellence, to provide career development and succession planning and to ensure the long-term success of the School.

It is proposed the School continuing academic staff profile will be the following:

- One (1) continuing academic position at Level E for Director – Computing;
- One (1) continuing academic position at Level E for Secure Software Systems Lead;
- Two (2) continuing academic position at Level D for Secure Software Systems cluster;
- One (1) continuing academic position at Level E2 for Computational Science Lead;
- One (1) continuing academic position at Level C for Computational Science cluster;
- Three (3) continuing academic position at Level E for Intelligent Systems cluster (including Lead);
- Two (2) continuing academic position at Level D for Intelligent Systems cluster;
- One (1) continuing academic position at Level C for Intelligent Systems cluster;
- One (1) continuing academic position at Level E for Data Science and Analytics (potential Lead);
- One (1) continuing academic position at Level E for Data Science and Analytics cluster;
- One (1) continuing academic position at Level C for Data Science and Analytics cluster; and
- One (1) continuing academic position at Level C for Education Lead

Directly Transferred Positions within the proposed structure

It is proposed the following positions will be directly transferred into the new School of Computing structure (see Figure 6). All of the positions proposed to be directly transferred are being transferred at level with eligibility criteria as outlined below.

For positions which do not otherwise meet another direct transfer category, eligibility criteria for transfer to a nominated cluster will be determined based on substantial (more than 50%) activity in cluster Field of Research (FoR) code determined by publications, grants and Excellence in Research Australia (ERA).

- Professor, Level E – Director of Research School of Computer Science;
- Professor, Level E2;

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- All ANU Futures, ANU Entrepreneurial and ANU Translational Fellows academic positions;
- All CCF, Fixed term and Tenure Track academic positions;
- ARC Future Fellow with >50% activity in FoR code 0801 and confirmed eligibility for direct transfer to Intelligent Systems cluster within proposed new structure;
- Eligible continuing RSCS academics to Secure Software Systems cluster if >50% activity in FoR codes 0803 and where there are available at level positions in proposed new structure;
- Eligible continuing RSCS and Software Innovation Institute academics to Data Science & Analytics cluster if >50% activity in FoR codes 0801 or 080604 and where there are available at level positions in proposed new structure;
- Eligible continuing RSCS and RSEEME academics to Intelligent Systems cluster if >50% activity in FoR codes 0801 or 010303 and where there are available at level positions in proposed new structure;
- Eligible continuing RSCS academics to Computational Science cluster if >50% activity in FoR codes 02 or 03 or 06 or 080301 and where there are available at level positions in proposed new structure
- Where more eligible academic staff than at level positions in cluster an internal Expression of Interest and selection process will be required to fill available positions.
- Continuing and fixed term professional staff positions with at level position in proposed new structure
- Any remaining vacant positions to be filled via internal EOI and/or standard recruitment processes as outlined in Staffing principles detailed in Part 4 below.

Figure 6: Continuing Positions to be directly transferred to the proposed new School of Computing

Current Position Title	**Proposed Academic cluster and/or Position Title**	**Number of positions**
Director, RSCS (Level E)	Director, School of Computing	1
Professor (Level E2)	Computational Science Lead (Level E2)	1
Professor (Level E)	Secure Software Systems Lead (Level E)	1
ARC Fellow, with substantive Professor (Level E) position	ARC Fellow, with substantive Senior Academic (Level E) position - Intelligent Systems	1
Associate Professor (Level D) - RSEEME	Senior Academic (Level D) - Intelligent Systems	1
Associate Professor (Level D)	Senior Academic (Level D) - Intelligent Systems	1
Associate Professor (Level D)	Associate Professor (Level D) - Secure Software Systems	2
Fellow (Level C)	Junior Academic (Level C) - Data Science and Analytics	1
Senior Lecturer (Level C)	Junior Academic (Level C) – Education Lead	1
CS Futures Fellow, with substantive Fellow (Level C) position	CS Futures Fellow, with substantive Junior Academic (Level C) position- Intelligent Systems	1
Senior Lecturer (Level C)	Junior Academic (Level C) - Computational Science	1
School Manager	School Manager	1
Assistant IT Manager (Professional Services Group)	Computing Facilities Manager	1
IT Teaching Support Officer (Professional Services Group)	Teaching Computer Facilities Support Technician	1
Senior School Administrator	Senior School Administrator	1
Executive Assistant	Executive Assistant	1
School Administrator	School Administrator	2
TOTAL		**19**

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Direct transfer of positions proposed to be confirmed through an Expression of Interest (EOI)

It is proposed the following positions will be eligible for an EOI process for direct transfer to the new School structure. All of the eligible positions have an equivalent at level position within the new structure (see Figure 7).

Figure 7: Continuing Positions eligible for an EOI process in the proposed new structure for the School of Computing.

Current Position Title/s	Proposed Position Title	Proposed Number of positions
Professor (Level E) - RSCS	Senior Academic (Level E) – Intelligent Systems Senior Academic (Level E) – Data Science & Analytics	2 1
TOTAL		**3**

New Positions within the proposed structure

It is proposed the following positions will be created within the new School of Computing structure.

Education Transformation Officer, ANU Officer Level 8 (one position). This proposed new position is recommended to be classified at ANU Officer 8. This role will lead the education team to design, develop and implement high quality innovative technology-enhanced educational experience for the School. The key accountability and responsibilities for the role are:

1. Lead or contribute to program and course design and development teams to ensure innovative and high quality education experiences.
2. Provide advice and support to staff in rethinking teaching practice and on the design, use and implementation of new methods
3. Lead the School technical education team.

Educational Technologist, ANU Officer Level 6/7 (four positions).This proposed new position is recommended to be classified at ANU Officer 6/7. This role will support the development and maintenance of educational programs within the School. The key accountability and responsibilities for the role are:

1. Act as a first point of contact for staff and students seeking support for teaching and learning activities.
2. Undertake specific tasks in support of the day to day development and maintenance of courses and infrastructure.
3. Create, develop and manage educational materials and resources

Engagement and Impact Officer, ANU Officer: Level 8 (one position). This proposed new position is recommended to be classified at ANU Officer 8. This role will identify and support engagement opportunities to promote the School's education and research portfolios. The key accountability and responsibilities for the role are:

1. Initiate, develop and nurture new industry and government partnerships.
2. Create and implement an engagement strategy for the School
3. Develop processes and reviews to track the progress towards the School's engagement strategy.

Research Computing Facilities Technician, ANU Officer Level 8 (one position) This proposed new position is recommended to be classified at ANU Officer 8. This role will support the operation and development of the College's computing systems supporting research activities. The key accountability and responsibilities for the role are:

1. Provide advanced system administration across a range of platforms
2. Support the operation and development of esearch computing facility systems and services
3. Ensure the reliability, availability and serviceability of research computing facility systems.

Disestablished positions within the proposed structure

It is proposed the following positions will be disestablished as there are no available at level positions within the Academic profile of the School and the positions do not fit any of the eligibility criteria that would enable them to be directly transferred to any of the available positions within the proposed new School structure.

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Level E – Four (4) positions - It is proposed that these roles will be disestablished. There are no available at level positions within the Academic profile of the School and within the eligibility criteria that would enable them to be directly transferred to any of the available positions within the proposed new School structure.

Level D – Two (2) positions - It is proposed that these roles will be disestablished. There are no available at level positions within the Academic profile of the School and within the eligibility criteria that would enable them to be directly transferred to any of the available positions within the proposed new School structure.

Level C – One (1) position - It is proposed that this role will be disestablished. There are no available at level positions within the Academic profile of the School and within the eligibility criteria that would enable them to be directly transferred to any of the available positions within the proposed new School structure.

School of Engineering

The proposed new structure for the School of Engineering is shown at Appendix 7.

It is proposed that the Academic profile of the new School will comprise a mix of early career academics (ECAs), mid-level career academics and academic leaders in their field. This is important to consider and support clusters within new Schools but also diversity and excellence, to provide career development and succession planning and to ensure the long-term success of the School.

It is proposed the School continuing academic staff profile will be the following:

- One (1) continuing academic position at Level E for Director – Engineering;
- One (1) continuing academic position at Level E for Aerospace Lead;
- One (1) continuing academic position at Level D for Aerospace cluster;
- Two (2) continuing academic positions at Level B or C for Aerospace cluster;
- One (1) continuing academic position at Level E for Electrical Theme Lead;
- One (1) continuing academic position at Level E for Electrical cluster;
- Two (2) continuing academic position at Level D for Electrical cluster;
- Two (2) continuing academic positions at Level B or C for Electrical Cluster;
- One (1) continuing academic position at Level D or E for Mechatronics Theme Lead;
- Two (2) continuing academic positions at Level D or E for Mechatronics Cluster;
- Three (3) continuing academic positons at Level B or C for Mechatronics cluster;
- One (1) continuing academic position at Level D or E for Environmental Theme Lead;
- One (1) continuing academic positons at Level B or C for Environmental cluster;
- One (1) continuing academic position at Level E for Indigenous Environmental Engineering Design Studio; and
- One (1) continuing academic position at Level B or C for Indigenous Environmental Engineering Design Studio.

Directly Transferred Positions within the proposed structure

It is proposed the following positions will be directly transferred into the new School of Engineering structure (see Figure 8). All of the positions proposed to be directly transferred are being transferred at level with eligibility criteria as outlined below.

For positions which do not otherwise meet another direct transfer category, eligibility criteria for transfer to a nominated cluster will be determined based on substantial (more than 50%) activity in cluster FoR code determined by publications, grants and ERA.

- Professor, Level E – Director of Research School of Engineering;
- All ANU Futures, ANU Entrepreneurial and ANU Translational Fellows academic positions ;
- All CCF, Fixed term and Tenure Track academic positions;
- Continuing RSAMEE environmental engineering academics to be transferred to Environmental cluster;
- Continuing RSAMEE aerospace academics to be transferred to Aerospace cluster;
- ARC Future Fellows with >50% activity in FoR code 0906 and confirmed eligibility for direct transfer to cluster within proposed new structure;
- Eligible continuing RSEEME and academics with >50% activity in FoR code 0906 and where there is available at level positions in proposed new structure in Electrical cluster;

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- Eligible continuing RSEEME academics with >50% activity in FoR code 0906 plus teaching experience in mechatronics major and where there is available at level positions in proposed new structure in mechatronics cluster;
- Where more eligible academic staff than at level positions in cluster an internal Expression of Interest and selection process will be required to fill available positions;
- Continuing and fixed term professional staff positions with at level position in proposed new structure; and
- Any remaining vacant positions to be filled via internal EOI and/or standard recruitment processes as outlined in Staffing principles detailed in Part 4 below.

Figure 8: Continuing Positions to be directly transferred to the proposed new School of Engineering

Current Position Title	Proposed Position Title	Number of positions
Director, RSEEME (Level E)	Director, School of Engineering (Level E) -	1
Professor (Level E)	Aerospace Lead (Level E) - Aerospace	1
Professor (Level E) - RSEEME	Senior Academic (Level E) - Mechatronics	1
Associate Professor (Level D) - RSEEME	Senior Academic (Level D) - Aerospace	1
ARC Fellow, with substantive Associate Professor (Level D) position - RSEEME	ARC Fellow, with substantive Associate Professor (Level D) position - Electrical	1
Head, Battery Storage Grid IP (Level D) - RSAMEE	Senior Academic (Level D) - Environmental	1
Director, Software Innovation Institute (Level D) - SII	Senior Academic (Level D) - Mechatronics	1
DECRA Fellow, with substantive Fellow (Level C) position - RSEEME	DECRA Fellow , with substantive Fellow (Level C) position - Electrical	1
Fellow (Level C) - RSEEME	Junior Academic (Level C) - Electrical	1
Senior Lecturer (Level C) - RSAMEE	Junior Academic (Level C) - Environmental	1
Technical Services Manager	Technical Services Manager	1
Electronics Technician	Electrical Lead	1
Laboratory Manager	Laboratory Manager	1
SUBSTANTIVE Project Officer	Educational Systems Officer	1
Mechanical & Materials Tech	Mechanical Lead	1
Technical Officer	Technical Officer	3
Executive Assistant	Executive Assistant	1
Senior School Administrator	Office Coordinator	1
School Administrator	Administration Officer	2
Electronics Technician	Technician	1
Technical Maintenance Ops Officer	Technician	1
TOTAL		**29**

Direct transfer of positions proposed to be confirmed through an Expression of Interest (EOI)

It is proposed the direct transfer of the following positions will be confirmed through an EOI process in the new structure (see Figure 9). All of the eligible positions have an equivalent at level position within the new structure.

Figure 9: Continuing Positions eligible for an EOI process in the proposed new structure for the School of Engineering.

Current Position Title/s	Proposed Position Title	Proposed Number of positions
Associate Professor (Level D) - RSEEME	Senior Academic (Level D) - Electrical	2
Professor (Level E) - RSEEME	Senior Academic (Level E) – Electrical Electrical Theme Lead (Level E)	1 1
TOTAL		**4**

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New Positions within the proposed structure
It is proposed the following positions will be created within the new School of Engineering structure.

School Manager, Senior Manager 2 (one position). This proposed new position is recommended to be classified as a Senior Manager 2 Position. This proposed new role will have an increased responsibility and scope to support the operational requirements and professional and technical services needed to support the new School. The key accountability and responsibilities for the role are:

1. Provide high level strategic planning and leadership to support the strategic priorities and ongoing operation of the School.
2. Develop and manage the WHS, School Administration and Technical Support portfolios within the School.
3. Facilitate the design, implementation and iterative development of research, education and engagement directions, governance and business strategies in collaboration with the senior leadership team.

WHS Manager, ANU Officer Grade 8 (Administration) (one position). This proposed new position is recommended to be classified at ANU Officer Grade 8 (Administration). This role will be responsible for the management, implementation and ongoing oversight of WHS matters within the College. The key accountability and responsibilities for the role are:

1. Establish a WHS framework in line with the University's WHS systems and requirements.
2. Lead and manage the implementation of ANU policies and procedures
3. Provide technical expertise and direction on all aspects of WHS as it relates to the College.

WHS Consultant, ANU Officer Level 6/7 (Administration) (one position). This proposed new position is recommended to be classified at ANU Officer Level 6/7 (Administration). This role will implement a uniform approach to WHS throughout the School and broader College under the guidance of the WHS Manager. The key accountability and responsibilities for the role are:

1. Act as a primary point of contact for College WHS, providing high level advice on WHS matters.
2. Monitor and report on compliance with and interpretation of WHS policy and legislation
3. Support injury management and return to work cases.

Materials Engineering Fellowship Positions unable to be transferred to new School
There are currently two (2) Level E positions and one (1) Level D position within the School which have externally funded Fellowships with a materials engineering research and education focus. As the proposed changes for the College and the School include a move away from materials engineering, these positions are unable to be directly transferred to the proposed new structure.

The College recognises and acknowledges the work undertaken by these Fellowships is important and that the materials engineering research and education activities undertaken within these roles have some alignment with activities in other Colleges and Research Schools at the University.

The College is working with these individual staff members and colleagues across the University to determine if their roles can be transferred to other Research Schools in alignment with strategic priorities and expertise in those Colleges and Schools.

Disestablished positions within the proposed structure
Academic Positions
It is proposed the following academic positions will be disestablished as there are no available at level positions within the Academic profile of the School and the positions do not fit any of the eligibility criteria that would enable them to be directly transferred to any of the available positions within the proposed new School structure.

Level E – (four positions). It is proposed that these roles will be disestablished. There are no available at level positions within the Academic profile of the School and within the eligibility criteria that would enable them to be directly transferred to any of the available positions within the proposed new School structure.

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Level D – (two positions). It is proposed that these roles will be disestablished. There are no available at level positions within the Academic profile of the School and within the eligibility criteria that would enable them to be directly transferred to any of the available positions within the proposed new School structure.

Level C – (One position). It is proposed that this role will be disestablished. There are no available at level positions within the Academic profile of the School and within the eligibility criteria that would enable them to be directly transferred to any of the available positions within the proposed new School structure.

Professional Staff Positions
It is proposed the following position will be disestablished as it is no longer required or the duties have been or will be ceased or distributed elsewhere within the proposed new structure.

School Manager, Senior Manager 1 (Administration) – (one position). It is proposed that this role will be disestablished. The proposed new structure requires an expanded role and scope of responsibility for the School Manager. It is proposed the School Manager role will be redesigned and expanded and have requirement for specific operational and technical experience. The work associated to this position will be included in the new expanded School Manager role and as part of the implementation of the proposed changes to the School of Engineering.

Office of the Dean and Professional Services Group
The Office of the Dean will include 4 positions and the new service model for the PSG will include 48 continuing positions. The proposed new structure for the Office of the Dean and Professional Services Group is provided in Appendices 8 and 9. Positions which cannot be filled through an EOI process will then be subject to recruitment.

Directly Transferred Positions within the proposed structure
It is proposed the following positions will be directly transferred into the new structure. All of the positions proposed to be directly transferred are being transferred at level and will have a position description review and refresh as part of the implementation of the proposed changes. This will enable the positions to be updated and aligned with the requirements of the proposed new structure and ensure the positions are focused on the required capacity to deliver on the administration requirements of the College.

All fixed term roles will directly transferred to the proposed new structure for the current term of their appointment.

Figure 10: Continuing positions to be directly transferred to the proposed Office of the Dean and PSG structure

Current Position Title	Proposed Position Title	Number of positions
Dean CECS	Dean	1
General Manager (VACANT)	General Manager	1
Executive Officer (VACANT)	Executive Officer	1
Office Manager	Office Manager	1
Project Officer (VACANT)	Project Officer	1
Advancement Office Administrator	Advancement Officer	1
Team Leader	Senior Service Consultant - Academic Services	1
Senior Project Officer D&I	Senior Service Consultant - D&I	1
ANU Officer Level 8 (Admin)	Senior Service Consultant - Student Services, Employability and Experience	1
Education Governance Officer	Service Coordinator - Academic Services	1
Education Governance Officer	Service Coordinator - Student Services, Employability and Experience	2
Sr Coursework Coordinator	Service Coordinator - Student Services, Employability and Experience	2
Grad Admission & Student Admin	Service Coordinator- Student Services, Employability and Experience	1
HDR Student Administrator	Service Coordinator- Student Services, Employability and Experience	1

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Deputy Manager RIO	Senior Service Consultant - Industry and Grants	1
Senior Project Officer	Service Coordinator - Industry and Grants	1
Marketing & Comms Senior Officer.	Service Coordinator - Marketing and Communications	1
Marketing Recruitment Officer	Service Coordinator - Marketing and Communications	1
HR Manager (VACANT)	Service Manager – Human Resources	1
Deputy HR Manager	Senior Service Consultant - Human Resources	1
Finance Manager (VACANT)	Service Manager – Finance	1
Deputy Finance Manager (VACANT)	Senior Service Consultant - Finance	1
Senior Finance Officer	Service Coordinator - Finance	2
Senior Manager 1 (Admin)	To be confirmed – substantive incumbent currently on temporary transfer	1
ANU Officer Grade 6/7 (Admin)	To be confirmed – substantive incumbent currently on temporary transfer	1
TOTAL		**33**

Direct transfer of positions proposed to be confirmed through an Expression of Interest (EOI)
It is proposed the following positions will be eligible for an EOI process in the new structure (see Figure 11). All of the eligible positions have an equivalent at level position within the new structure

Figure 11: Continuing Positions eligible for an EOI process in the proposed new structure for the Office of the Dean and Professional Services Group.

Current Position Title/Classification	**Proposed Position Title**	**Proposed Number of positions**
Senior Manager 2	Service Leader	3
Senior Manager 1	Service Manager	6
ANU Officer 8	Senior Service Consultant	5
ANU Officer 6/7	Service Coordinator	5
ANU Officer 5	Service Officer	7
TOTAL		**26**

New Positions within the proposed structure
It is proposed the following positions will be created within the new structure. All proposed new positions are recommended to ensure that suitably qualified and experiences staff have the skills qualifications and attribute to improve subject matter expertise to optimize the delivery of and outcome of administration support for the Research School, College and the University.

Service Leader (Engagement / Community / Resources), Senior Manager 2 (three positions). These proposed new positions are recommended to be classified at SM2. The Service Leader roles will lead and develop the College's Engagement, Community and Resources functions, championing the service focus and providing strategic advice, management and leadership. The key accountability and responsibilities for the roles are:

1. Lead coach and develop their people to create high performing teams
2. Ensure the delivery of excellent engagement outcomes to clients and stakeholders, advancing the College's and University's overall capability and strategic goals
3. Build strong and collegial relationships with the College community and wider University.

Senior Service Consultant (Industry and Grants), ANU Officer Level 8 (one position). This proposed new position is recommended to be classified at ANU Officer 8. This role provides high level support and advice on all industry, government and non-research related opportunities including the coordination of projects. The key accountability and responsibilities for the role are:

1. Initiate, develop and nurture new and existing industry and/or commercial projects and consultancies.
2. Provide effective supervision to the service team members
3. Coordinate provision of responsive and expert advice to the College community.

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Service Coordinator (Industry and Grants), ANU Officer Level 6/7 – This proposed new position is recommended to be classified at ANU Officer 6/7. This role will provide comprehensive, high level support contributing to the efficient and effective provision of services within the engagement function. The key accountability and responsibilities for the role are:

1. Coordinate operational aspects and employ logic and reasoning to provide high level and complex advice on industry collaboration, research grants and funding opportunities.
2. Assist with the development, implementation and monitoring provision of reports to support the College's strategic initiatives
3. Contribute to and participate in business improvement projects.

Service Coordinator (Marketing and Communications), ANU Officer Level 6/7 – This proposed new position is recommended to be classified at ANU Officer 6/7. This role will provide comprehensive, high level support contributing to the efficient and effective provision of services within the engagement function The key accountability and responsibilities for the role are:

1. Coordinate operational aspects and employ logic and reasoning to provide high level and complex advice on marketing and communications, student recruitment and events.
2. Assist with the development, implementation and monitoring provision of reports to support the College's strategic initiatives
3. Contribute to and participate in business improvement projects.

Service Manager (Academic Services / Student Services, Employability and Experience / Assets), Senior Manager 1 (three positions) - These proposed new positions are recommended to be classified at SM1. The role will act as the principal advisor to senior management and College community on all academic education policy, support, governance and curriculum related aspects (or student administration, guidance and support related aspects, or Asset related (physical and digital) aspects), providing high-level, strategic student administration advice, guidance and support. The key accountability and responsibilities for the role are:

1. Provide effective leadership, management and engagement to the Academic Services team, or the Student Services, Employability and Experience team, or the Assets team.
2. Ensure proactive, strategic and expert advice is provided to the College leadership group and broader community
3. Support the development implementation of strategic plans.

Service Consultant (Student Services, Employability and Experience), ANU Officer Level 8 (one position). This proposed new position is recommended to be classified at ANU Officer 8. This role will provide high level support and advice to the Service Manager on all student experience and support related aspects, including the development, design and implementation of student management practices. The key accountability and responsibilities for the role are:

1. Provide effective supervision to the service team members
2. Lead and Manage the provision of student lifecycle support operations
3. Coordinate the provision of responsive and expert advice to the College community.

Senior Service Consultant (Assets), ANU Officer Level 8 (one position). This proposed new position is recommended to be classified at ANU Officer 8. This role will assist the Service Manager in the management of complex asset issues and in the delivery of high quality, robust and flexible services to College community. The key accountability and responsibilities for the role are:

1. Coordinate the provision of responsive and expert advice to the College community
2. Lead and manage the College's physical and digital asset operations including Dev Ops
3. Prepare strategic report and analytics, investigating issues and providing insightful recommendations.

Disestablished positions within the proposed PSG structure

It is proposed the Professional Service Group (PSG) within the College will be pivoted to a service orientated approach and it is expected there will be a reduction of up to 4 continuing professional staff professional staff positions once all direct transfers and EOI processes are completed.

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Summary of proposed Academic Program changes

The reorganisation and changes proposed for the College will impact the AOUs within CECS and this will affect the education programs which will be offered by the College.

Analysis and consideration of all current educational programs within the College has been undertaken and the program impact of the proposed changes are noted below:

Programs which will continue to be offered within the proposed new College structure:

- Bachelor of Information Technology (BIT) (plus Honours)
- Bachelor of Advanced Computing (Honours) (and R&D)
- Bachelor of Advanced Computing (BAC) (and R&D)
- Bachelor of Applied Data Analytics (BADA) (plus Honours)
- Bachelor of Engineering (Honours) (and R&D)
- Diploma of Computing
- Doctor of Philosophy
- Graduate Certificate of Applied Data Analytics (GCADA)
- Graduate Certificate of Data Engineering (GCDE)
- Graduate Certificate of Machine Learning and Computer Vision (GCMLCV)
- Graduate Diploma of Applied Cybernetics (GDAC)
- Graduate Diploma of Applied Data Analytics (GDADA)
- Graduate Diploma of Computing (GDCOMP)
- Master of Applied Cybernetics (MAC)
- Master of Applied Data Analytics (MADA)
- Master of Computing (MCOMP) (and Advanced)
- Master of Engineering in Electrical Engineering (MEEE)
- Master of Engineering in Mechatronics (MMECH)
- Master of Engineering in Renewable Energy (MERE)
- Master of Machine Learning and Computer Vision (MMLCV)
- Master of Philosophy (MPHIL)

Programs which will cease to be offered within the proposed new College structure and will require teach out arrangements

- Bachelor of Software Engineering (Honours) (BSENG)
- Master of Engineering in Digital Systems and Telecommunications (MEDST)
- Master of Engineering in Photonics (MPHOTO)
- Bachelor of Engineering (Honours) (and R&D) stream - Biomedical Systems major and minor
- Bachelor of Engineering (Honours) (and R&D) stream - Mechanical and Material Systems major and minor
- Bachelor of Engineering (Honours) (and R&D) stream – Photonics Systems major and minor
- No other majors and minors in the Bachelor of Engineering (Honours) (and R&D) stream affected

Teach Out Plan

A teach-out plan for all affected programs, majors, and minors will be developed by the College in consultation with the Deputy Vice Chancellor (Academic), the Dean, the Associate Dean (Education), the relevant Research School Directors and (as applicable) the Associate Director (Education).

The plan will detail a timetable for each of the impacted programs and delivery of associated courses and confirm teach out enrolment conditions. It is expected this will include confirmation of no new enrolments in the BSENG from the end of 2020 and enrolments in all other programs within the confirmed teach out plan to be limited to students undertaking impacted programs as part of existing program plan arrangements.

It is expected that any teach-out program will run until the end of 2022 and will require academic support from a mix of full time, part time and fixed term academic appointments, and, possibly a range of casual sessional academic staff.

Following confirmation of this teach-out program and approval by the University Academic Board, this program will be communicated to all affected students.

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Consideration of coursework students

Where transitional arrangements for College programs are required as a result of this change process, the following process will be followed:

- Where a current student wishes to transfer to an alternative program offered by the College, the necessary arrangements will be put in place by the College to assist the student making an application to transfer. Students wishing to transfer will still need to meet minimum program admission requirements;
- Where a current student wishes to transfer their studies to an alternate program at another University, the College will support and, as appropriate, assist the student to make the necessary arrangements to facilitate this transfer; and
- Where a current student wishes to cease their studies before completing the full program, the College will assist the student to make the necessary arrangements to cease their enrolment.

Each student will be offered personalised advice on options by the College and support with any administrative actions required in order to meet the individual needs and circumstances of each student.

Consideration of HDR Students

Where transitional arrangements for supervision of HDR students are required as a result of the proposed College reorganisation, the following process will be followed:

- If a current HDR student's principal supervisor or another member of their supervision panel is not appointed to a role in the proposed new College structure, the student will be advised in person by the Associate Dean (HDR) and the Dean (HDR) before as soon as practicable;
- As part of discussions with affected staff members, they will be asked if they wish to continue their supervision arrangements with any current or intending HDR students for whom they are responsible. If so, the Associate Dean (HDR) will consult with the student(s) and confirm that the student(s) wish to continue with this supervisor. In this case, the College will work with the student to make the necessary arrangements.
- Consideration will be given to arranging ongoing associations or affiliations, in accordance with the University's Conferral of Academic Title Policy and procedure, for staff who may be leaving the University but wish to continue their supervisory arrangements;
- Where the principal supervisor chooses not to affiliate with the University, the Associate Dean (HDR), in cooperation with academic staff in the proposed new Schools and the College, will make recommendations to the student about suitable academic staff within the University who could assume the principal supervisor's role. No appointment of a new principal supervisor will be made without full consultation with the student and without the student's express agreement.
- If a suitable principal supervisor or other panel members cannot be identified within the University, the Associate Dean (HDR) will work with the student and with staff in the new Schools and the College to identify a suitable replacement from within the disciplinary network of universities in Australia and internationally. In this situation, the costs of securing substantive supervision from an external academic will be covered by the University.
- Any intending HDR students not currently enrolled but who may be identified as being impacted by the changes will have all the principles above apply to them with any appropriate modifications subject to their circumstances.

Impact on and Management of Research Grants

Research grants held and being delivered by any staff member who does not transition to the proposed new College structure will be managed on a case by case basis. This will be in consultation with the staff member and the granting body and in the same manner and with the same principles that apply to the handling of research grants when a staff member leaves the ANU for any circumstance, including employment at another organisation.

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PART 4: STAFFING PRINCIPLES

It is proposed that the transition to the new College structure is via the following steps and staffing principles.

The objective of the proposed plan for transitioning to a new College structure and teaching is to enable the University to work with individual staff members within the College, and representatives, to ensure timely and effective consultation and that any reductions in staffing are managed in accordance with the job security provisions outlined in clause 67 of the *ANU Enterprise Agreement 2017-2021* (ANU Enterprise Agreement).

In accordance with Clause 67 of the ANU Enterprise Agreement, any staff reductions within the College will be managed and achieved through the following principles:

- natural attrition;
- permanent transfer;
- redeployment;
- voluntary conversion to part-time work;
- Fixed term pre-retirement agreements; or
- Voluntary separation.

Academic Staff: Staffing Principles
The following principles will apply in determining academic staff position changes:

Where eligibility for transfer to new School cluster cannot be determined
For positions which do not otherwise meet another direct transfer category, eligibility criteria for transfer to a nominated cluster will be determined based on substantial (more than 50%) activity in cluster FoR code determined by publications, grants and ERA. If >50% eligibility criteria required for direct transfer to new School and cluster cannot be confirmed, it will be determined by expert panel which will include nominees from within the College, the University and from external experts as appropriate. The Information to be considered will include:

- Primary FoR code (if available) with more than 50% in cluster FoR code;
- Three (3) years publication data confirming FoR;
- Current research grants;
- HDR Supervision;
- Teaching program/s; and
- Service (University and Industry),

If eligibility for direct transfer to a cluster is confirmed and if there is available at level positions in proposed new structure, a direct transfer will be confirmed.

Where there are more eligible academic staff than at level positions in a cluster an internal Expression of Interest and selection process will be required to fill available positions.

Where there are more eligible academic staff than available positions
Where more eligible academic staff than at level positions in cluster an internal Expression of Interest (EOI) process will be required to fill the available positions. There may be vacant academic positions which will be created and available within the proposed new Schools. Affected CECS staff will be provided the opportunity to lodge applications through an EOI process for (at level) positions. A selection process will be undertaken based on the standard recruitment process of assessing applicants against the selection criteria for the roles. This selection process will include a formal selection panel and interviews may be held for short listed candidates.

If EOI processes do not result in appointments, vacant positions will be subject to internal (ANU wide) and external recruitment and formal selection processes.

Where there are new or vacant academic positions
There may be vacant academic positions which will be created and available within the proposed new Schools. If there are vacant positons, it is proposed that there would be an Expression of Interest (EOI) process

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conducted for the newly established positions. Affected CECS staff will be provided the opportunity to lodge applications through an EOI process for (at level) positions. A selection process will be undertaken based on the standard recruitment process of assessing applicants against the selection criteria for the roles. This selection process will include a formal selection panel and interviews may be held for short listed candidates.

If EOI processes do not result in appointments, vacant positions will be subject to internal (ANU wide) and external recruitment and formal selection processes.

Phase 1– Management of Staff Requests
Consult with all affected staff for all possible options, in accordance with clauses 67 and 68 of the ANU Enterprise Agreement

Phase 2 – Notification of Disestablishment of Positions & Redeployment
Affected staff will be advised in accordance with subclauses 56.5 and 68.19-68.20 of the ANU Enterprise Agreement that their substantive position is surplus to requirements. The formal redeployment processes under clauses 56.7 to 56.13 of the ANU Enterprise Agreement will apply.

Staff whose positions have been identified as surplus will be formally advised in writing. Action will be taken to identify suitable alternate positions for such staff - or the staff member may seek approval for an early separation. In such a case, they will be paid the balance of the 12-week redeployment period.

In accordance with clause 56.8 of the ANU Enterprise Agreement, a suitable alternative position means a position which has substantially the same duties, classification level and career standing as the redundant position and for which the staff member currently possesses the skills and experience (or could reasonably be expected to develop the required skills within a limited period) to satisfactorily perform the duties of the position.

If the process of identifying suitable positions results in more than one staff member being interested in the position then a selection process will be undertaken for the role based on a standard appointment process. The assessment will be against the selection criteria for the role. The selection process will be that applicable to a standard appointment process with a formal selection panel formed and assessments made against the position selection criteria.

In accordance with the ANU Enterprise Agreement the staff member that best meets the selection criteria for the position, or could be expected to meet the selection criteria with appropriate training within a reasonable timeframe, will be appointed to the position.

Phase 3 – Notice of termination due to Redundancy
Following the 12 week redeployment period, where the staff member cannot be redeployed, in accordance with clause 56.14 of the ANU Enterprise Agreement the University will notify the affected staff member(s) in writing that his or her position is to be declared redundant and his or her employment may be terminated; the reason for the redundancy; and the timeline for this action.

This notification advice will also provide the staff member with at least 6 weeks formal notice in accordance with clause 56.15 of the ANU Enterprise Agreement that their employment is to be terminated due to redundancy from a specified date. At the discretion of the University payment in lieu of notice may be provided.

The following termination payments will apply to staff made redundant:

- For Academic staff a redundancy payment of 3 weeks' salary for each year of service with a minimum payment of 5 weeks' pay and maximum of 68 weeks' pay;
- Academic Employment Transition Payment of up to 16 weeks salary for academic staff, provided the total redundancy payment for academic staff does not exceed 78 weeks (excluding accrued annual and long service leave); and
- Payment of accrued annual leave and, if eligible, long service leave.

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Professional Staff: Staffing Principles
The following principles will apply in determining professional staff position changes:

Phase 1 – Management of Staff Requests
Consult with all affected staff for all possible options, in accordance with clauses 67 and 68 of the ANU Enterprise Agreement

Phase 2 – Recruitment and Appointment Process
Finalise position descriptions for positions. Recruitment for vacant and proposed new positions will commence once position descriptions have been reviewed and approved by the University Staffing Committee.

Once position descriptions are finalised, direct transfers will be confirmed where possible and staff identified to have a change in position title, description or supervisor will be provided with revised position descriptions and written notification of any supervision changes.

An Expression of Interest (EOI) process will then be conducted for newly established and vacant positions with affected staff provided the opportunity to lodge applications through an EOI process for (at level) identified positions within the new structure. A selection process will be undertaken based on the standard recruitment process of assessing applicants against the selection criteria for the role. This selection process will include a formal selection panel and interviews may be held for short listed candidates.

If EOI processes do not result in an appointment, vacant positions will be subject to internal (ANU wide) and external recruitment and formal selection processes.

All other proposed new or vacant positions, not subject to an EOI process for affected staff, will be subject to external recruitment processes.

It is expected that the recruitment processes may take 1-2 months to finalise. Temporary appointments may be made to these positions during this period to ensure continuity of service delivery.

Phase 3 - Notification of Disestablishment of Positions & Redeployment
Affected staff will be advised in accordance with subclauses 56.5 and 68.19-68.20 of the ANU Enterprise Agreement that their substantive position is surplus to requirements. The formal redeployment processes under clauses 56.7 to 56.13 of the ANU Enterprise Agreement will apply.

Staff whose positions have been identified as surplus will be formally advised in writing. Action will be taken to identify suitable alternate positions for such staff - or the staff member may seek approval for an early separation. In such a case, they will be paid the balance of the 12-week redeployment period.

In accordance with clause 56.8 of the ANU Enterprise Agreement, a suitable alternative position means a position which has substantially the same duties, classification level and career standing as the redundant position and for which the staff member currently possesses the skills and experience (or could reasonably be expected to develop the required skills within a limited period) to satisfactorily perform the duties of the position.

If the process of identifying suitable positions results in more than one staff member being interested in the position then a selection process will be undertaken for the role based on a standard appointment process. The assessment will be against the selection criteria for the role. The selection process will be that applicable to a standard appointment process with a formal selection panel formed and assessments made against the position selection criteria.

In accordance with the ANU Enterprise Agreement the staff member that best meets the selection criteria for the position, or could be expected to meet the selection criteria with appropriate training within a reasonable timeframe, will be appointed to the position.

Phase 4 - Notice of Termination Due to Redundancy
Following the 12 week redeployment period, where the staff member cannot be redeployed, in accordance with clause 56.14 of the ANU Enterprise Agreement the University will notify the affected staff member(s) in writing that their position is to be declared redundant and his or her employment may be terminated; the reason for the redundancy; and the time line for this action.

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This notification advice will also provide the staff member with at least six weeks' formal notice in accordance with clause 56.15 of the ANU Enterprise Agreement that their employment is to be terminated due to redundancy from a specified date. At the discretion of the University, payment in lieu of notice may be provided. The following termination payments will apply to professional staff whose positions are made redundant:

- A redundancy payment of three weeks' salary for each year of service with a minimum payment of five weeks' pay and maximum of 64 weeks' pay; and
- Payment of accrued annual leave and long service leave.

PART 5: THE UNIVERSITY COMMITMENT

This formal change management document is the first version of the formal proposal for workplace change required by the College of Engineering and Computer Science.

It is foreseeable that the impact of this proposal will involve:

- The disestablishment of 7 AOUs (i.e. 4 Reesarch Schools and 3 Institutes);
- The establishment of 3 AOUs (i.e. 3 Schools);
- The reorganisation of the College professional support services;
- Development of a teach out plan for programs impacted by College, Research School and Institute changes;
- The direct transfer of one (1) Dean position;
- The direct transfer of one (1) Deputy Dean position;
- The direct transfer of two (2) Research School Director positions;
- The direct transfer of one (1) Institute Director position;
- The direct transfer of 23 continuing academic positions;
- The direct transfer of 18 tenure track and ongoing position program academic positions;
- The direct transfer of 16 continuing (contingent funded) (CCF) academic positions;
- The direct transfer of 118 fixed term academic positions;
- The direct transfer of 55 continuing professional staff positions;
- The direct transfer of nine (9) continuing (contingent funded) professional staff positions;
- The direct transfer of 56 fixed term professional staff positions;
- Transition arrangements for affected staff including permanent transfer, redeployment, transition to a fixed term or fixed term per-retirement agreement and voluntary separation;
- The disestablishment of up to 14 continuing academic staff positions; and
- The disestablishment of up to five (5) continuing professional staff positions.

Staff redundancies, if unavoidable, will be subject to the University's redundancy provisions.

Notification:
The University is drafting this document to set out its specific proposal for your information and it is being circulated to:

- ANU College of Engineering and Computer Science staff and students;
- ANU College of Engineering and Computer Science Honorary appointees;
- ANU Executive;
- College Deans, Research School Directors, Service Division Directors, General Managers and School Managers;
- Available via the ANU Recovery website: here
- Nominated staff representatives including the NTEU;
- ANUSA;
- PARSA; and
- Other relevant stakeholders as required.

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Representation:

Throughout this process staff members may be represented, and seek advice or assistance at any time from a person of their choice as outlined in the ANU Staff Representation Procedure which may be accessed via this link http://policies.anu.edu.au/procedures/staff_representation_procedure/procedure

Staff may not request representation by a legal practitioner unless they are directly involved in a formal disciplinary or termination of employment processes.

PART 6: CONSULTATION

ANU is committed to consultation with staff and students and we will continue to provide a range of options and opportunities for the community to be involved, ask questions and provide feedback and ideas.

The ANU has set out the below timetable to meet and confer with the staff members concerned (and their chosen representatives). The ANU endeavours to reach agreement about the implementation of change and to work consultatively with people affected by change.

Feedback may be submitted at org.change@anu.edu.au

Alternatively, please contact one of the nominated members of staff identified in the contacts table below.

Date	Details of Consultation Process
Thursday 15 October 2020	Meetings with all staff within CECS Research Schools, Institutes and Professional Staff Release of the proposal to ANU College of Engineering and Computer Science Release the Proposal to the University Community Consultation Period Commences
Monday 19 October 2020	RSCS staff forum Software Innovation Institute staff forum RSEEME staff forum 3A Institute staff forum
Tuesday 20 October 2020	RSAMEE Staff forum PSG Staff Forum
Thursday 29 October 2020	Close of Consultation period
Friday 16 October – Friday 6 November 2020	Collation of feedback from Consultation and preparation of Implementation Plan
Week Commencing 9 November 2020	Publication of Implementation Plan
Week commencing 9 November 2020	Feedback on Implementation Plan
Week commencing 16 November 2020	Proposed commencement of Implementation

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Contacts:
This change management process will be led by Professor Elanor Huntington, Dean, ANU College of Engineering and Computer Science in consultation with the Human Resources Division.

Name	Position	Contact details
Professor Elanor Huntington	Dean ANU CECS	dean.cecs@anu.edu.au ph: 02 6125 8807
Professor Nick Birbilis	Deputy Dean ANU CECS	deputy.dean.cecs@anu.edu.au ph: 02 612 57611
Duane Findley	General Manager (Interim) ANU CECS	gm.cecs@anu.edu.au ph: 02 6125 1451
Belinda Farrelly	Associate Director, Organisational Change	org.change@anu.edu.au belinda.farrelly@anu.edu.au ph: 02 6125 3012

Support for Staff:
Staff seeking additional support or advice should contact:

Name	Position	Contact details
Gail Frank	Advisor to Staff	gail.frank@anu.edu.au ph: 02 6125 3616
Dr Maaria Haque	Advisor to Staff	maaria.haque@anu.edu.au ph: 02 6125 8283
Employee Assistance Providers	Assure Relationships Australia	1800 808 374 (02) 6122 7100

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APPENDICES

Appendix 1 – PROPOSED ACTIVITY CLUSTERS
Appendix 2 – CECS RANKINGS 2016-2020
Appendix 3 – CURRENT COLLEGE STRUCTURE
Appendix 4 – PROPOSED NEW COLLEGE STRUCTURE
Appendix 5 – PROPOSED NEW STRUCTURE: SCHOOL OF CYBERNETICS
Appendix 6 – PROPOSED NEW STRUCTURE: SCHOOL OF COMPUTING
Appendix 7 – PROPOSED NEW STRUCTURE: SCHOOL OF ENGINEERING
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Appendix 9 – PROPOSED NEW STRUCTURE: PROFESSIONAL SERVICES GROUP

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APPENDIX ONE: Proposed Activity Clusters

As indicated in the main document, the three proposed Schools (Computing, Cybernetics, and Engineering) and Professional Services Group (PSG) consist of proposed activity clusters or focus areas. Sketches of the proposed activity clusters are provided here.

Aerospace Engineering: Access to space and uncrewed aerial systems are rapidly decreasing in cost, driving new opportunities. We propose to pursue topics in space systems engineering, advanced propulsion systems, and control of aerospace structures and vehicles. A possible key central topic of the School of Engineering will be aerospace systems for Earth observation. These topics would leverage particular ANU strengths in electrical and mechatronics engineering, as well as expertise from the Advanced Instrumentation Technology Centre. We would continue to be a key contributor to ANU InSpace. We would be positioned to design and deliver a world-class systems-focussed aerospace engineering education program with a suite of offerings including microcredentials, undergraduate, and postgraduate coursework. We would aim to be the education partner of choice for national and international aerospace companies, particularly in the systems space.

Autonomy, Agency and Assurance Institute: While the public conversation continues to be about Artificial Intelligence (AI) and ethics, there is growing realisation of the need to identify, build, and scale the skills and knowledge needed to design and manage AI-enabled cyber-physical systems through the life-cycle. We plan to complete the mission to establish a new branch of engineering (NBE) focused on safe, sustainable, and responsible technology at scale. We propose to build out the educational programs under the NBE (MA, PhD, microcredentials), via research-led iterative design principles. Our research should continue to focus on emerging cyber-physical systems in context, working collaboratively with industry, government, academic, and not-for-profit partners. We plan to lead the establishment of similar offerings at various educational hubs around the world.

Computational Science: Computation increasingly drives discovery in the sciences and engineering. We propose designing, implementing and using mathematical models to analyse and solve computationally demanding problems, using advanced computational infrastructure and algorithms to perform large-scale simulations of physical systems and processes, and visualise the outcomes to inform the science. Drawing on advances in machine learning (ML) and artificial intelligence (AI) we would enable new approaches to virtual discovery and design, and the effective utilisation of computational assets at scale. Our education programs should train computational scientists and provide them with skills in high performance computing relevant to science and engineering. We propose to work with partners in target applications such as environmental science, computational biology, bioinformatics, quantum physical systems, and nanotechnology, to accelerate discovery in these domains.

Data Science & Analytics: Data acquisition, curating, processing, and modelling is central to understanding the world and society. We propose to pursue a rigorous understanding of data and its contexts and implications. We propose to engage with domain experts in government, business, and the health and social sciences to build models for turning data into information to support effective and confident economic and social decision making. Our research would focus on the design and construction of robust processes for data modelling and validation, leading to prototypes, algorithms, and systems for domain-specific analysis. These tools will enable discovery and visualisation of trends in data, to derive meaningful conclusions and identify potential biases. Our broad teaching portfolio should include both micro and macro credentialing, and balance theoretical techniques with domain-relevant project-based learning, aimed at researchers, practitioners, and decisionmakers

Design: At heart, the question, “We can build it, but should we?” is a design question. Design is now seen as the most powerful strategic capability for successful organisations. We propose building capability in the College to create a next generation studio model for teaching, research, and engagement that can then be adopted where appropriate across the College, with a specific initial collaboration proposed with the Environmental cluster below. We propose to operate as an open function, collaborating broadly to craft short, sharp, shaped experiences. There would be integration of research and education, built around design sprints and theory-into-practice encounters. Faculty, students, and partners should collaborate fluidly on transdisciplinary, outcomes-focused projects. We propose to establish formal relationships with corporations, government bodies, not-for-profits, and academic and educational institutions. Students should graduate with practical and relevant experience of high value to employers across a range of industries and sectors.

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Electrical Engineering: Electrical engineering fundamentally underpins many of the solutions to current societal challenges. This includes the design and development of advanced communications, signal processing, and control algorithms. Existing expertise in these areas would provide strong support to endeavours in several of the other activity clusters; particularly mechatronics and aerospace engineering, and collaborating with the School of Computing in the area of computer engineering. We also propose to contribute to the zero-carbon energy transition by advancing the state-of-the-art in 21st century power systems, particularly through the Battery Storage & Grid Integration Program. We also propose to continue to make fundamental contributions in the area of energy and devices, including the technology to underpin the hydrogen economy.

Environmental Engineering: Managing our natural and urban environments in the face of growing population pressures and climate change – including increasingly severe droughts, storms, and bushfires – is one of the great challenges of our time. We propose to focus on areas of significant national importance including interconnected urban systems, management and monitoring of our waterways and surrounding oceans, and bushfire prediction and response. This would leverage expertise in other Engineering clusters for the development of sensors, monitoring platforms, and signal processing algorithms, as well as in Computational Science and Data Science & Analytics clusters in the School of Computing. We would be able to work closely with allied efforts across the ANU including in the Fenner School of the Environment and the Research School of Earth Sciences. We propose to found a first-in-the-nation Indigenous Environmental Engineering Design Studio with the specific aim of threading Indigenous ways of knowledge throughout our work in this space. In collaboration with the Design cluster in the School of Cybernetics, this could readily serve as a seed activity to grow the support and use of Indigenous ways of knowledge across the College.

Intelligent Systems: Machine Intelligence augments human intelligence in analysing and synthesising vast amounts of information. We propose to focus on the computational modelling and design of intelligent agents in complex real-world contexts. Our research would integrate areas of artificial intelligence (AI), machine learning (ML), and vision and natural language understanding, to build autonomous systems that can perceive, plan, and respond to their environment in pursuit of high-level goals. Our teaching portfolio should include introductory and advanced courses in AI and ML from the foundational science to implementation of large-scale practical intelligent systems, with applications in computer vision, language understanding, and robotics, co-taught and codeveloped across the three Schools. We would also be well-placed to work across the university to address questions on integrating human and social values in AI systems, touching on aspects of philosophy, cognition, ethics, and safety.

Mechatronics: Industry 4.0+ will rely heavily on advanced, flexible, and configurable manufacturing. Environmental monitoring will require autonomous mobile air, land, and sea systems. We propose to build on the ANU's historical expertise in computer vision, machine learning, robotics, and systems and control to carve out a unique and internationally recognised mechatronics activity. We propose to pursue broad application areas in distributed optimisation and control of autonomous systems with a particular focus on the development of low cost, safety-critical monitoring and control systems. We would be well-positioned to support multiple highly competitive international student design project teams in mechatronics, providing students with world-class educational experiences particularly with respect to systems design, integration, and operation drawing on expertise in all three Schools.

Secure Software & Systems: Software and Hardware platforms underpin global commerce, governance, and social wellbeing as critical infrastructure. We propose to focus on the foundations of computing hardware and software to improve the safety, reliability, and performance of software systems, and to make them scalable and secure. We would combine teaching and research in the foundations of computing: logic and verification, computer organization and architecture, operating systems, formal methods and methodologies for software development, and programming languages and tools. We plan to work closely with industry partners on solutions to problems for real systems. Our education programs should emphasise hands-on implementation and project-based learning.

Systems: Increasing complexity and the merging of technology, society, and environment mean that systems engineering has never been more important. Building on heritage engineering and IT, we propose to reinvigorate ANU as an internationally recognised centre for systems thinking, providing critical skills to industries and sectors working with complexity. We propose to develop research-led educational offerings that will make training accessible to people in their current role through microcredentials, giving them hands-

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on experiences of high value in their professional context. We plan to refine and flesh out the existing suite of macrocredentials to span the College and engage externally. Our research is envisioned to be primarily applied, support cross-campus collaboration, and focus on industry contexts. Focusing on systems leadership for the 21st century, we aim to become the Australian Public Service (APS) systems education provider of choice.

Professional Services Group - Engagement: The impact of the College is defined by those with which the College engages (industry, research funding agencies, government, and communities). The proposed Engagement cluster of the PSG includes a core focus on engagement, inclusive of what has been typically called business development, research services, marketing, recruitment and outreach. Unification of these activities will allow integration of messaging, assets, staff utilization, and consolidated service to stakeholders.

Professional Services Group – Community: Students (undergraduate, postgraduate, and by research) are the lifeblood of the ANU. A common thread that links all students in the College Strategic Intent, is that they all should have an exceptional Student Experience. Part of an exceptional student experience is student employability. By combining the student services function, along with academic services (included compliance and accreditation), student experience and employability, and Diversity & Inclusion – a unit focusing on the core part of our community is best placed to serve that community.

Professional Services Group – Resources: The ability to serve the College community and those with which the College community interacts, hinges on the resources (human, physical and digital) within the College and across the ANU. The resources team should be integrated across financial and business systems, working together to ensure seamless coordination of information, systems, processes, and strategic information. Continuous improvement, including Dev-ops – will provide an integrated strategic unit fulfilling HR, Finance, Infrastructure, and IT functions.

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APPENDIX 2: CECS Rankings 2014-2020

Ranking & Subject		2014	2015	2016	2017	2018	2019	2020
QS	Electrical & Electronic Engineering – GLOBAL	29	35	42	44	55	57	57
QS	Electrical & Electronic Engineering – NATIONAL	2	2	2	2	3	3	3
ARWU	Electrical & Electronic Engineering – GLOBAL				42	76 - 100	201 - 300	76 - 100
ARWU	Electrical & Electronic Engineering – NATIONAL				1	3 – 4	10 - 15	3 - 7
QS	Materials Science – GLOBAL				51 - 100	51 - 100	101 - 150	51 - 100
QS	Materials Science – NATIONAL							
ARWU	Materials Science & Engineering – GLOBAL				151 - 200	101 - 150	101 - 150	101 - 150
ARWU	Materials Science & Engineering – NATIONAL				6 - 7	3 - 5	3 - 8	5 - 10
QS	Mechanical, Aeronautical & Manufacturing Engineering – GLOBAL	55	87	63	97	87	104	122
QS	Mechanical, Aeronautical & Manufacturing Engineering – NATIONAL	5	7	5	5	5	5	5
ARWU	Mechanical Engineering – GLOBAL							
ARWU	Mechanical Engineering – NATIONAL							
QS	Computer Science & Information Systems – GLOBAL	17	26	31	36	37	40	41
QS	Computer Science & Information Systems – NATIONAL	2	2	2	2	3	2	2
ARWU	Computer Science & Engineering – GLOBAL				39	46	46	51 - 75
ARWU	Computer Science & Engineering – NATIONAL				2	2	3	4 - 5
THES	Computer Science – GLOBAL				40	83	84	69
THES	Computer Science – NATIONAL				1	2	3	2
QS	Engineering & Technology – GLOBAL		41	UR	46	46	61	71
QS	Engineering & Technology – NATIONAL		6	UR	5	5	5	5
ARWU	Engineering/Technology & Computer Sciences – GLOBAL	101 - 150	151 - 200	UR				
ARWU	Engineering/Technology & Computer Sciences – NATIONAL	5 - 8	10	UR				
THES	Engineering & Technology – GLOBAL	UR	UR	90	UR	66	76	81
THES	Engineering & Technology – NATIONAL	UR	UR	6	UR	3	4	4

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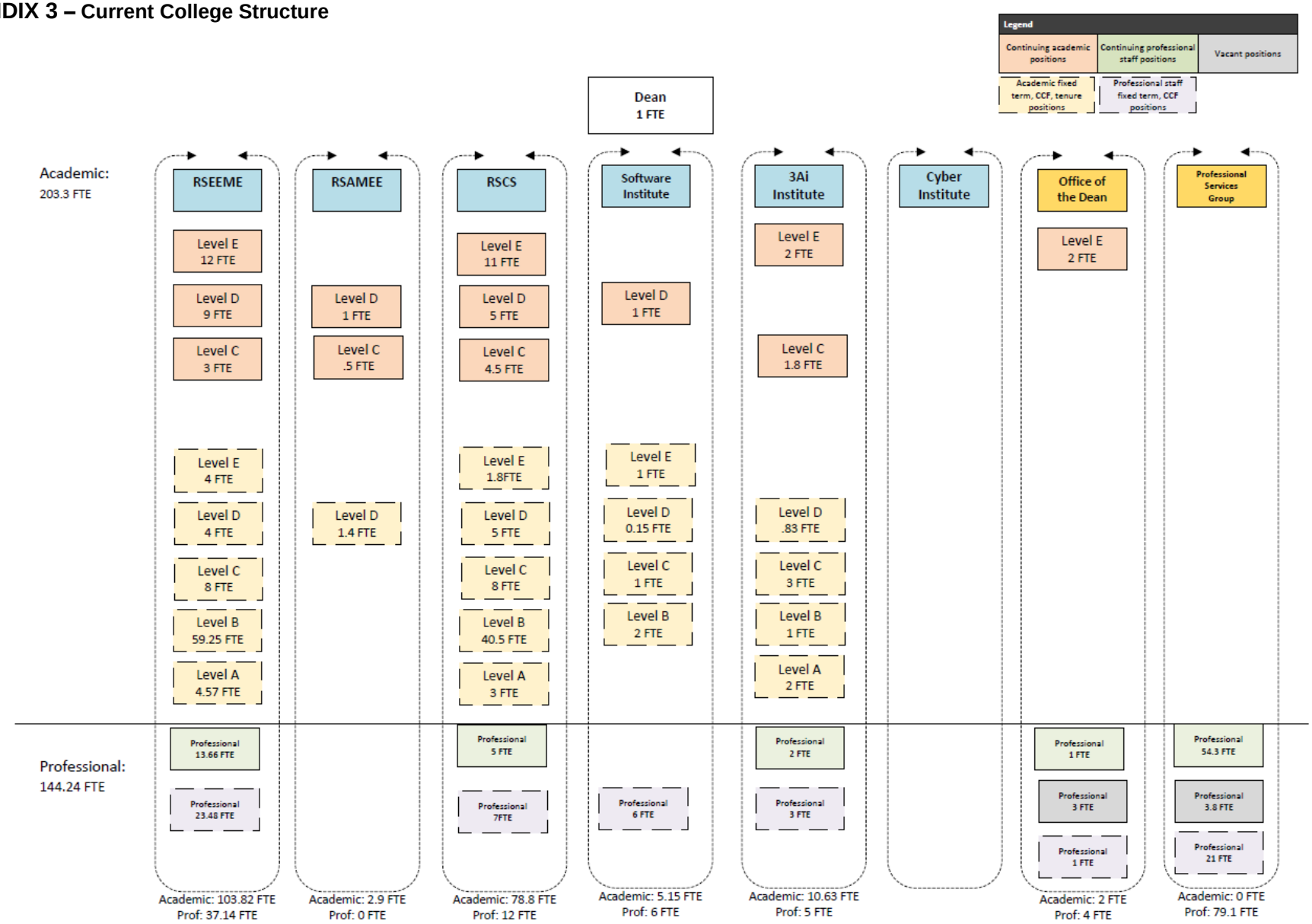
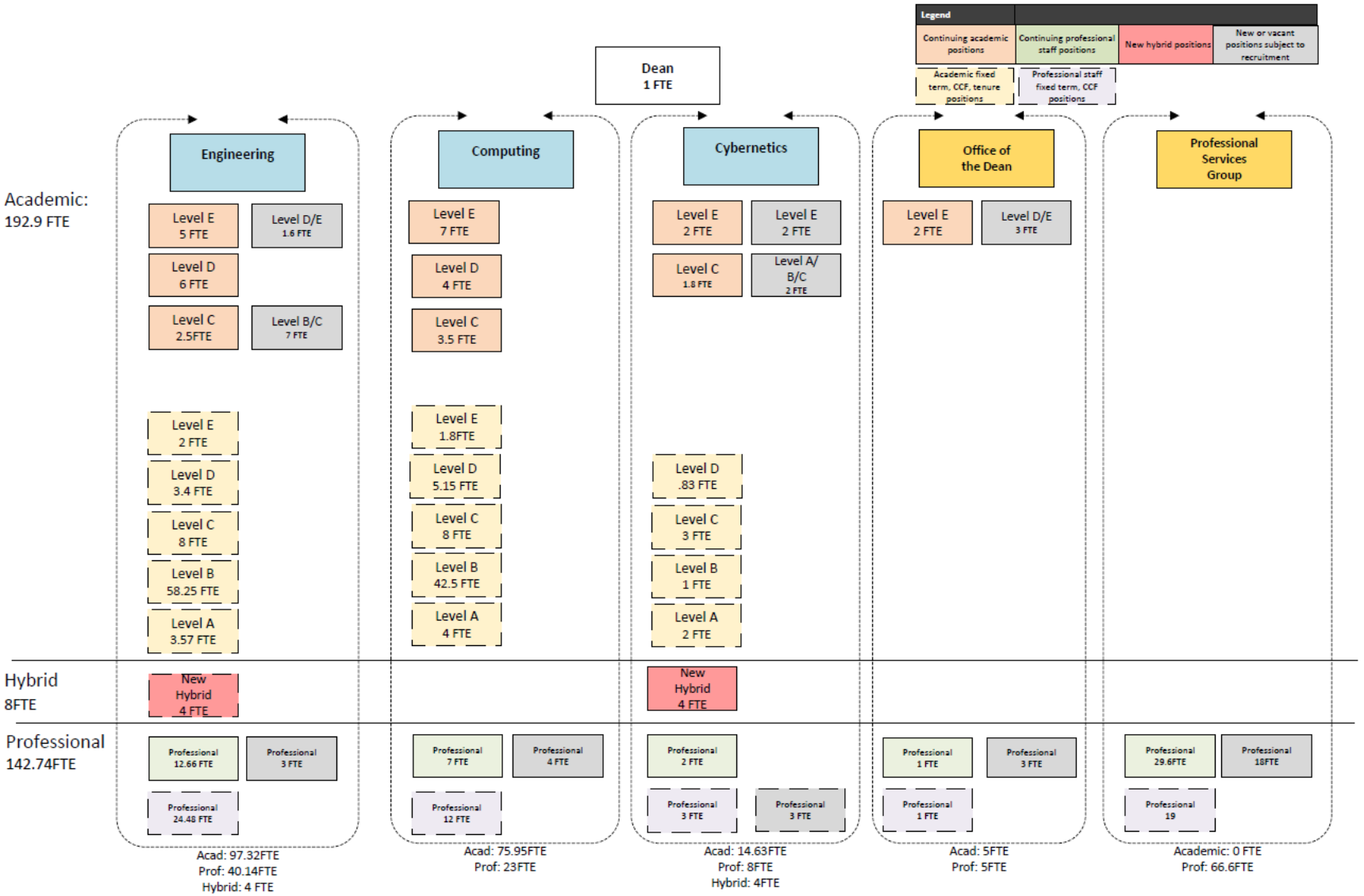
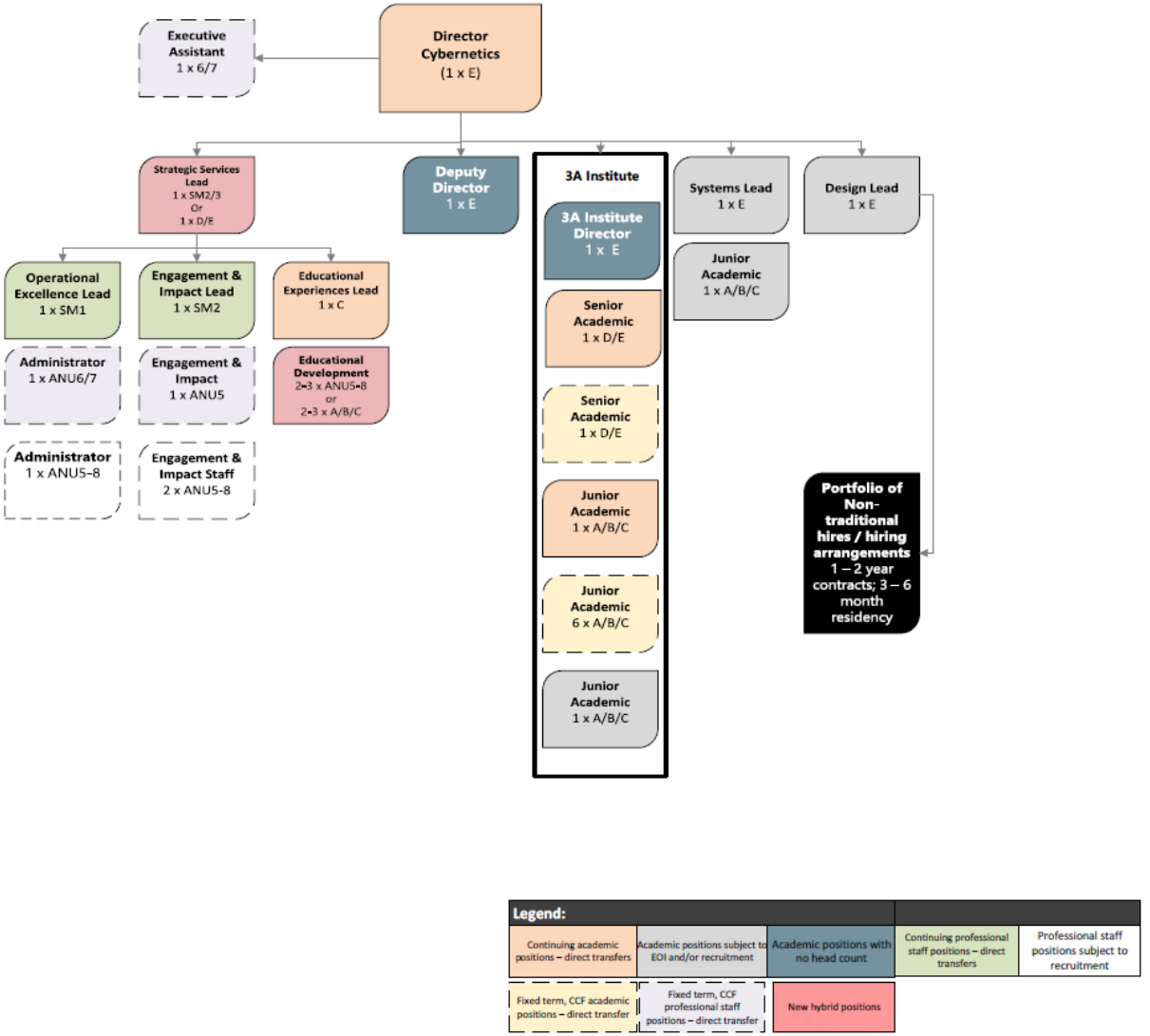
APPENDIX 3 – Current College Structure



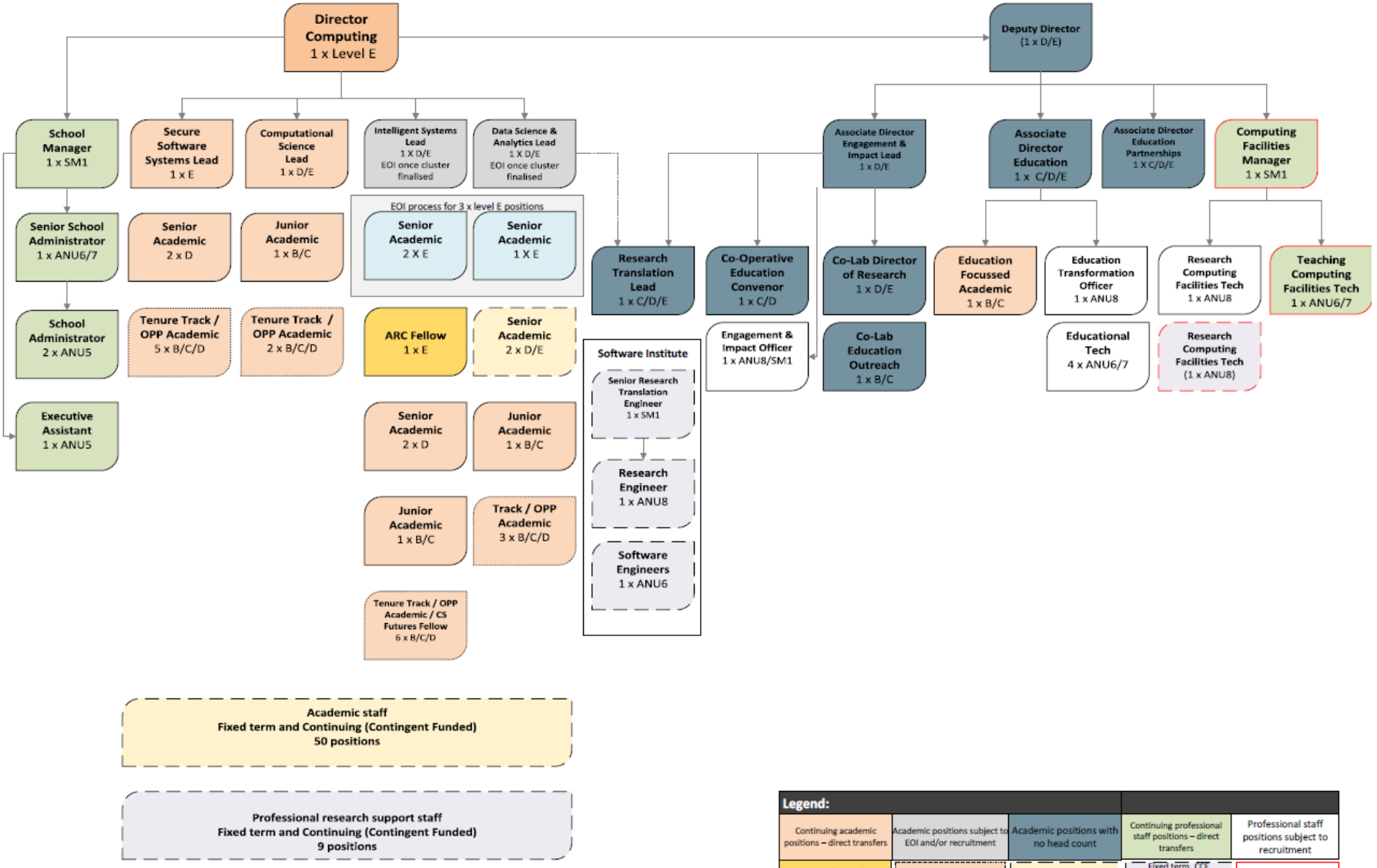
APPENDIX 4 – Proposed College Structure



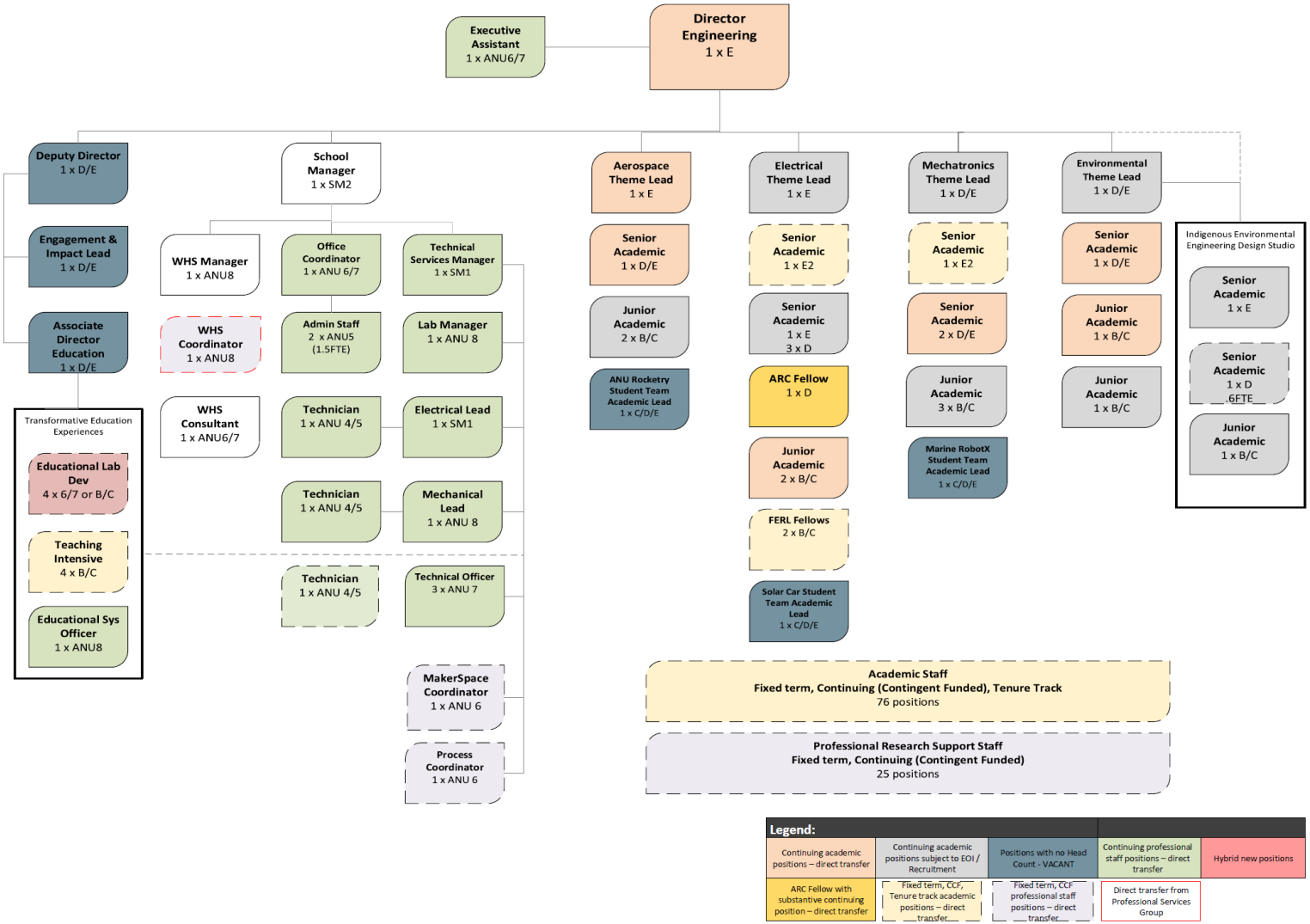
APPENDIX 5 - Proposed New Structure: School Of Cybernetics



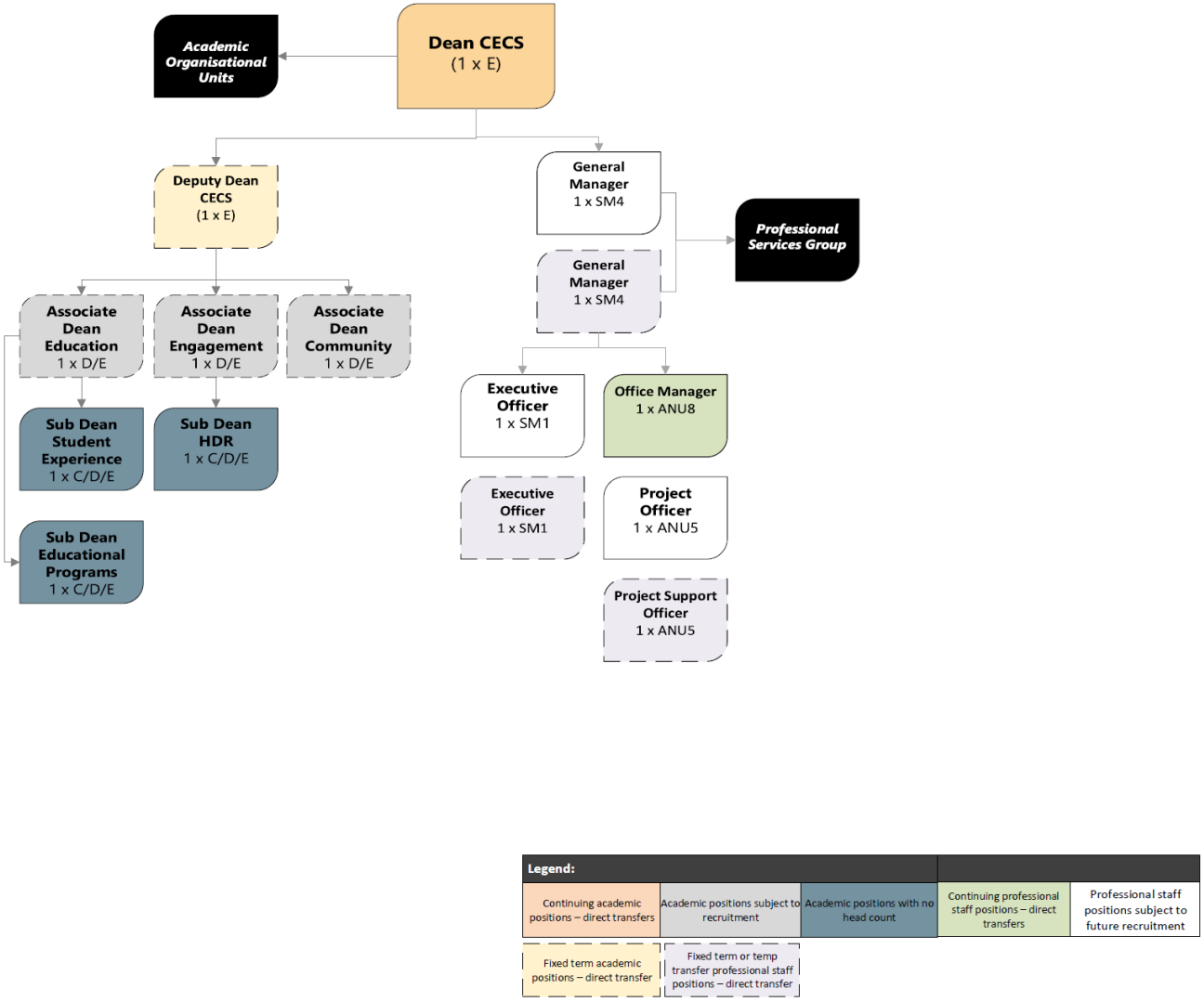
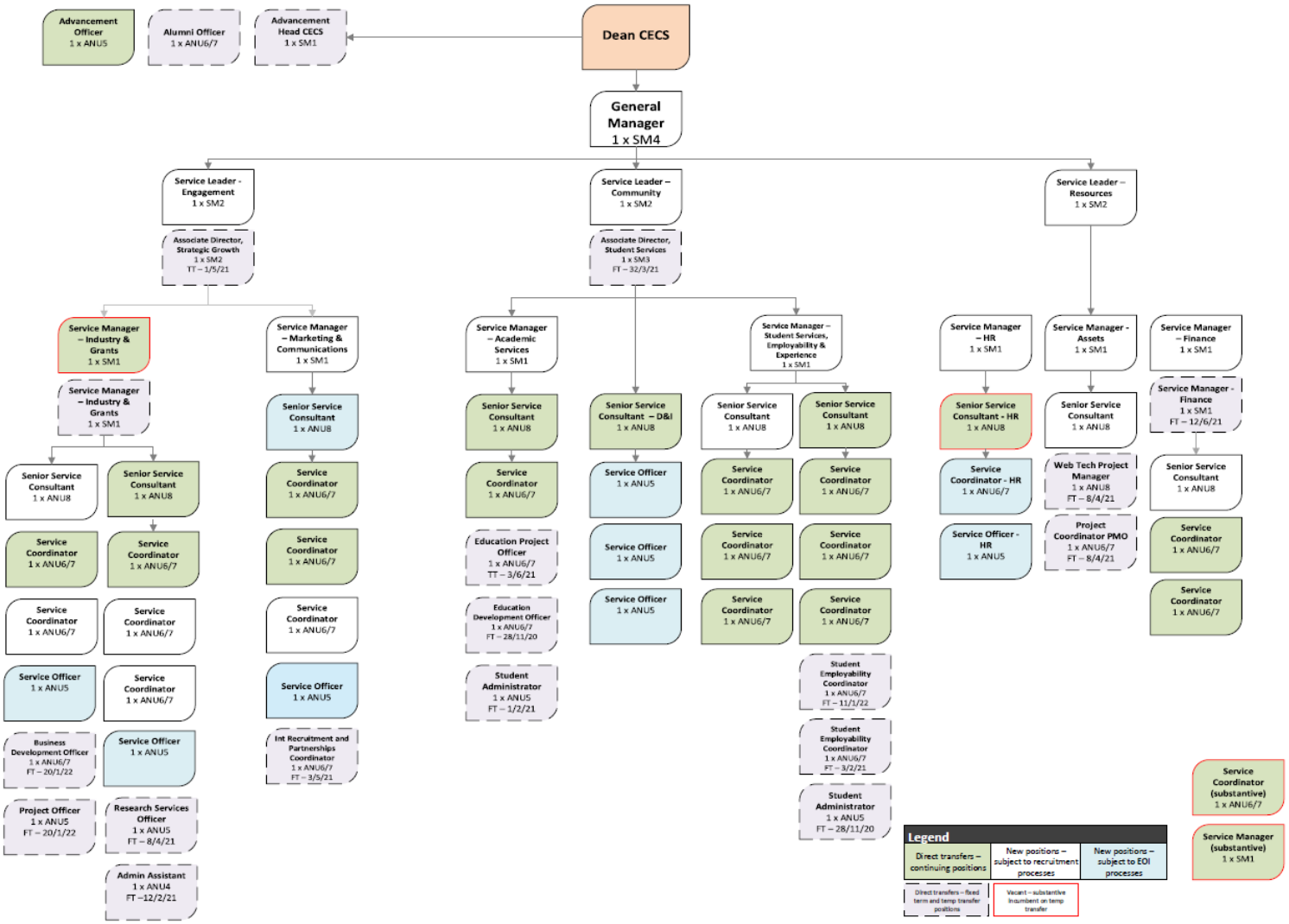
APPENDIX 6 - Proposed New Structure: School Of Computing



APPENDIX 7 – Proposed New Structure: School Of Engineering



APPENDIX 8 – Proposed New Structure: Office Of The Dean



APPENDIX 9 – Proposed New Structure: Professional Services Group