



THE UNIVERSITY
OF QUEENSLAND
AUSTRALIA

CREATE CHANGE

Faculty of Science Board Meeting

Semester 2, 2018

St Lucia and Gatton

Agenda

1. Business arising for the Semester 1 meeting
 - a) Summary of feedback on the Science precinct and Gatton development plan
2. Staffing and achievements
3. UQ and External environment
4. Priorities for 2019
5. Associate Dean Academic update
6. Acting Associate Dean Research update
7. Faculty Executive Manager update
8. Morning tea!

Staffing matters

101 new staff since the last Faculty board meeting

Senior staff movements

- Christine Beveridge (ARC Laureate)
- Kerrie Wilson (QUT Director IFE)

New senior staff

- Director of Advancement (Evan Morgan)
- Acting Associate Dean Research (Jenny Seddon)
- Director of Biotechnology (Avril Robertson)
- School Manager, SMP (Whitney Woods)

Promotion to Senior Lecturer and Associate Professor (FoS & QAAFI)

- 22 applications, 20 successful (4 female, including 3 female to level D)

Promotion to Professor (FoS)

- 7 applications, 6 successful (3 female)

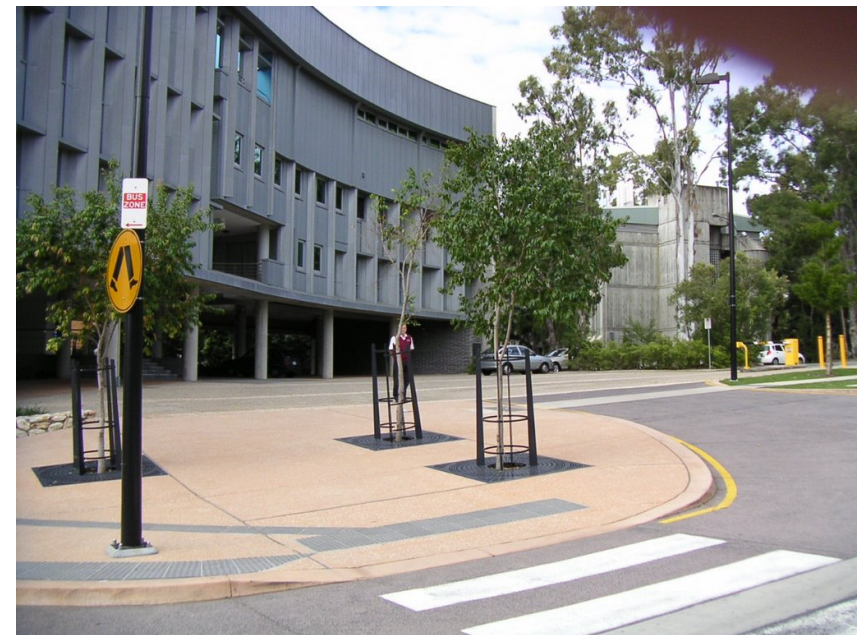


Achievements

- **BVSc(Hons):** International accreditation and Academic Program Review (5 yr cycle).
- **Teaching successes (more from Michael)**
 - **HEA fellows:** 8 x new fellows in 2018
 - **Blended learning / course digitization:** 14 UQ2U courses plus UQ-Monash collaboration
 - **New PGCW program development:** 5 programs in various stages of development
- **Research successes (More from Jenny)**
 - **Contributions to global subject rankings:** #1 Biodiversity conservation (CWUR), #3 Environment and ecology (NTU), #4 Agriculture (NTU), #8 Biotechnology (ARWU), #3 Marine (CWUR)
 - **Contribution to 2018 UQ Nature Index (#1 in Australia):** Chemistry 26/82 = 36.5%, Physical Sciences 29/83 = 35%, Life Sciences 58/194 = 30%, Earth and environmental sciences 30/83 = 36%
 - **Grant highlights:** 4 ARC Laureates, 3 ARC Future Fellows, 8 ARC DECRAAs, 22 ARC Discovery, 1 ARC LIEF, 7 ARC Linkage, 11 NHMRC project, 3 x ACIAR, RIRDC, GRDC, and more
 - **2018 Highly cited researchers:** Christine Beveridge, Phil Hugenholtz, Margie Mayfield, Peter Mumby, Hugh Possingham, Anthony Richardson

UQ environment

- New DVCR and DVCEE
- Reconciliation action plan
- Blended learning and Program architecture projects
- Commercialization advisory group
- Academic performance expectations review (P3 project)
- SAGE Athena SWAN
- Top 10 risks



External environment

Local / National

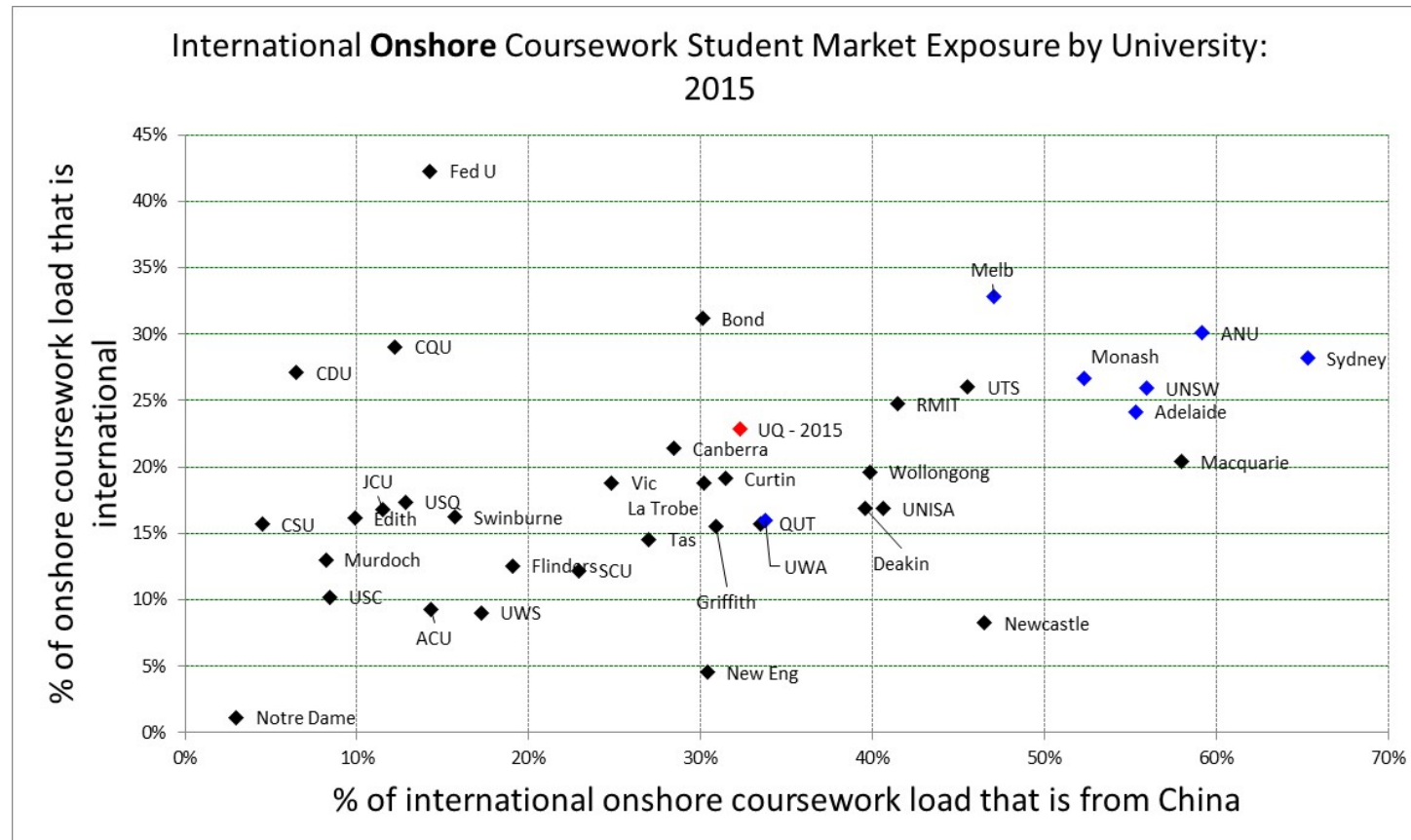
- Economic impact of Go8 universities (\$64B pa)
- Economic impact of medical research in Australia (\$78B / 1990-2004)
- Proposed changes to national grant processes (Single system, EOI etc)
- New National Science and research advisory council
- Cost of teaching exercise
- Significant partnerships with UQ
 - Queensland Museum (Sparklab)
 - QYAC
 - High School teachers across Qld

International

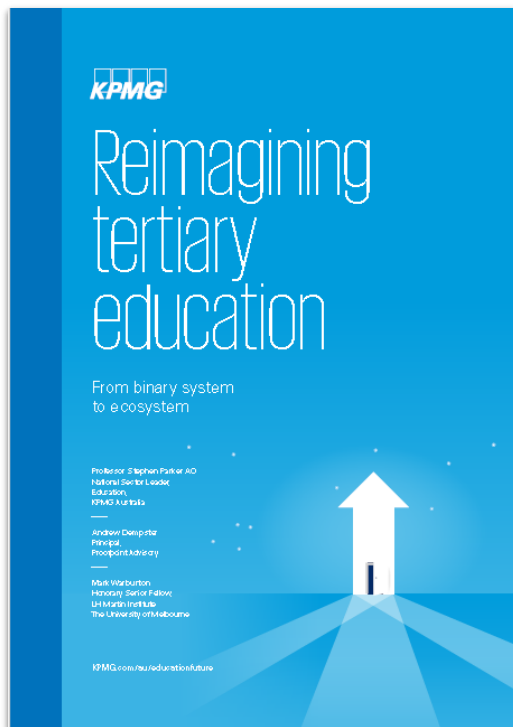
- Fragility of international student market
- Changing landscape of higher education
- Significant partnerships with UQ
 - Indian Institute of Technology Delhi
 - Technical University of Munich
 - Multiple new articulated program agreements



External environment



External environment



Ernst and Young 2018

- Comparative spend on teaching and research
- Funding the indirect cost of research
- Impact on ERA and QILT metrics
- Future models of Universities
 - Dependence on government
 - Nature of program offerings:
 - Degrees versus professional development / micro-credentials

Priorities for 2019

1. Program architecture and blended learning (DVCA)
2. Global challenge initiatives (DVCR)
3. Science precinct – Design phase
4. Gatton – Capital bids for stage 1 projects
5. Navigating new NHMRC schemes
6. Potential strategic funding bids
 - Marine Science (BIOL/SEES),
 - Sensing technologies for Medicine/Agriculture (SCMB/SMP/SAFS),
 - Infectious disease research (SCMB),
 - One Health (SVS),
 - Quantitative biology (BIOL)



UQ Science precinct

Vision

The UQ Science precinct will **enable partnerships** in a way that has not previously been possible. By co-locating future and current students, alumni, researchers, research facilities and our partners in industry and not for profit sectors, we will establish **a unique pipeline of engagement** that enhances the performance of all stakeholders. **Future students will be inspired** to study at UQ, **current students will be inspired** to pursue a career with us or our partners, **researchers will pursue impactful and partnered fundamental and applied research** that is underpinned by **world's best facilities**, and Alumni will be inspired to support UQ Science teaching and research activities. The UQ Science precinct will facilitate solutions to global challenges and the development of game changing graduates.

Values

- Provides a welcome to Science at UQ
- Builds partnerships for learning, research and engagement
- Creates an integrated learning environment
- Delivers a collaborative research environment
- Gives value for money
- Designed for a 50-year lifetime

UQ Science precinct

- Flexible spaces for blended teaching delivery
- Superlabs for practical teaching
- Opportunities for work integrated learning

Teaching



- Space for Quantum Physics, Plant biotechnology, Microbiology and Biochemistry et al
- Research collaboration and partnerships
- Research infrastructure

Research



- Public events
- Alumni engagement
- Showcasing science
- Engaging future and current science students

Community engagement



University of Technology Sydney superlab: <https://www.youtube.com/watch?v=3RO55ex5SNM>

UQ Gatton Development Plan

Mission

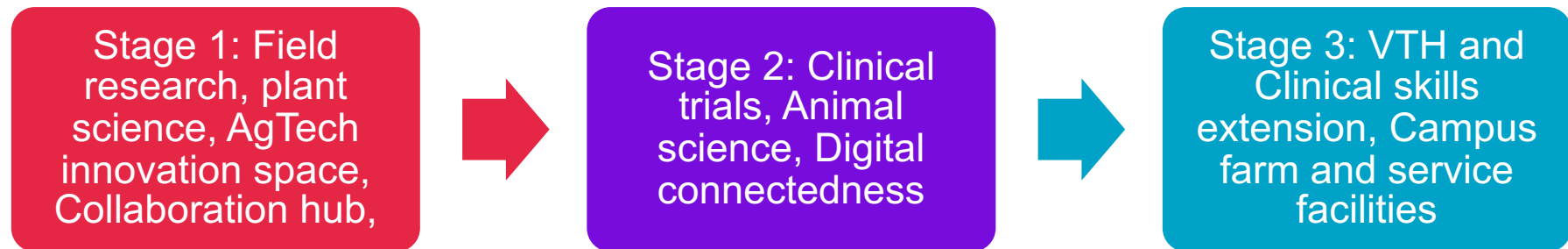
A key hub of The University of Queensland, the Gatton Campus is a rich and vibrant multi-disciplinary learning, research, practice and production community set on more than 1000 hectares of highly productive land in regional SE Queensland. As a key hub of The University of Queensland the Gatton Campus plays a key role in training the next generation of veterinary science and agriculture game changing leaders, and working with industry and government to develop and deliver practical, sustainable, evidence-based solutions to global issues.

Goals

- Improve student educational and on campus experience
- Enhance collaborative multidisciplinary technology enabled research
- Improve community engagement

UQ Gatton Development Plan

Infrastructure priorities



Next steps

Have your say survey to be launched soon: Internal, then external



Associate Dean Academic Report

2018 Faculty Teaching Excellence Awards

- A/Prof James Fraser (SCMB)
- Dr Margie McEwen (SVS)
- Dr Artem Pulemotov (SMP)
- Dr Thomas Sigler (SEES)
- VETS for LIFE (Dr McEwen, Prof Mills, Prof Jones)

2018 Higher Education Academy Fellowships

- Andrew Allsebrook, Michael Jennings, Karyn Johnson, Louise Kuchel, Paul Mills, Susan Rowland, Daniel Schull, Jack Wang

2019 UQ Teaching Fellowship: A/Prof Rowland Cobbold (SVS)

- <https://science.uq.edu.au/about/teaching-learning/awards-grants-and-fellowships>



FACULTY STRATEGIC PLAN 2018–2021

Support for Objective One: Transform students into game changing graduates

- Student access
- Curriculum
- Teaching innovation
- Student employability
- Student connectivity



FACULTY STRATEGIC PLAN 2018–2021

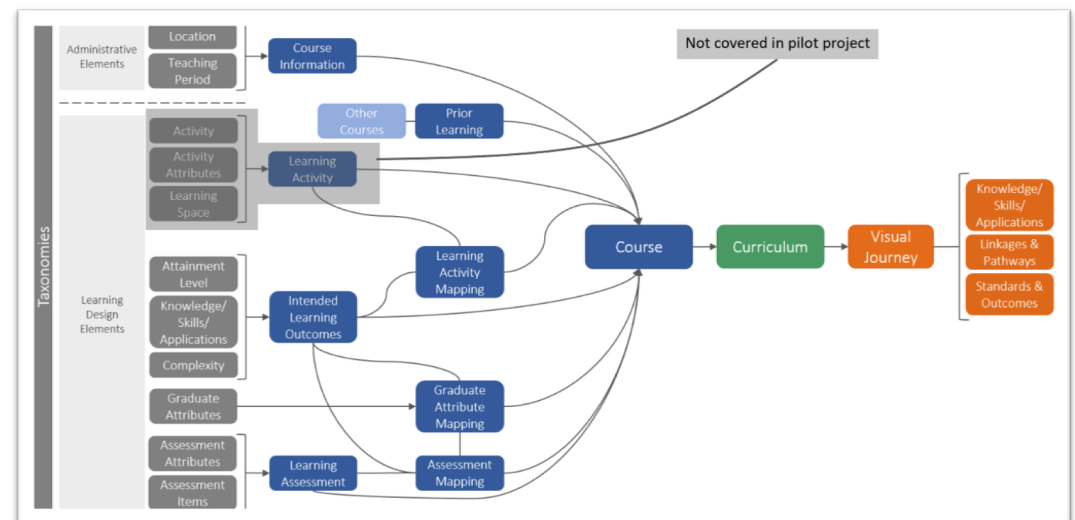
Support for Objective One: Transform students into game changing graduates

- **Student access**
 - **Future Scientist Scholarship**
 - **Support program: Students at risk**
- Curriculum
- Teaching innovation
- Student employability
- Student connectivity

FACULTY STRATEGIC PLAN 2018–2021

Support for Objective One: Transform students into game changing graduates

- Student access
- **Curriculum**
 - **Extra support for academic program reviews**
 - **Map student skills and knowledge in programs (supporting Program Architecture project)**
 - **Coming soon: Industry advisory panels**
- Teaching innovation
- Student employability
- Student connectivity



FACULTY STRATEGIC PLAN 2018–2021

Support for Objective One: Transform students into game changing graduates

- Student access
- Curriculum
- **Teaching innovation**
 - **Support blended learning initiatives (UQ2U and Faculty-funded)**
 - **Student-led observation for course improvement (SLOCI) – team now available**
 - **Staff training, grants and awards**
 - **Faculty T&L Forum: 9 am – 4 pm Thurs, 7 Feb 2019**
- Student employability
- Student connectivity

FACULTY STRATEGIC PLAN 2018–2021

Support for Objective One: Transform students into game changing graduates

- Student access
- Curriculum
- Teaching innovation
- **Student employability**
 - <https://science.uq.edu.au/student-support/employability>
 - **Faculty employability framework**
 - **SCIE3050 elective work-integrated learning course**
 - **Promotion of employability skills in courses**
 - **Students as Partners projects**
- Student connectivity

FACULTY STRATEGIC PLAN 2018–2021

Support for Objective One: Transform students into game changing graduates

- Student access
- Curriculum
- Teaching innovation
- Student employability
- **Student connectivity**
 - **Student Leadership Program including:**
 - **Leadership and Mentoring Partnerships in Science - training students as mentors (yr 1)**
 - **Science Leaders Academy (yrs 2-3)**

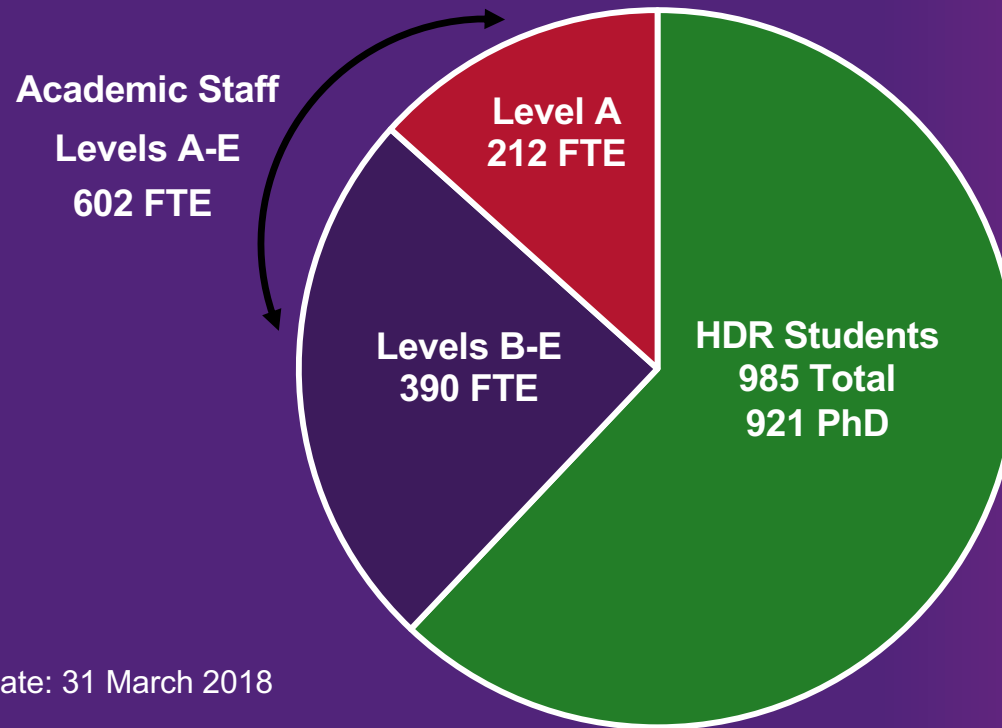
Reminder:

Faculty T&L Forum: 9 am – 4 pm Thurs, 7 Feb 2019



Acting Associate Dean Research Report

Academic Staff and HDR Student Base for Research



Staff as at Census Date: 31 March 2018

Awards

ARC Laureate Fellows

- Prof Christine Beveridge (BIOL)
- Prof Tamara Davis (SMP)
- Prof Bostjan Kobe (SCMB)
- Prof Hanns-Christoph Nägerl (SMP)

ARC Future Fellows

- Dr Tatsuya Amano
- Dr Ian Marquette (SMP)
- Dr Vera Weisbecker (BIOL)

Australian Academy of Science Gladstone Award for Research

- Grace Muriuki (SAFS)

2018 Malcolm McIntosh Prize for Physical Scientist of the Year

- Assoc Prof Jack Clegg (SCMB)

2018 Loreal-UNESCO for Women in Science Australia & New Zealand Fellowship

- Dr Kirsty Short (SCMB)

Young Tall Poppy Awards

- Dr Jacinda Ginges (SMP)
- Dr Jacqui Romero (SMP)
- Dr Teresa Ubide Garralda (SEES)

Advance Queensland Industry Research Fellowships

- Dr Anne Sawyer (SCMB)

2018 Excellence in Higher Degree Research Supervision

- Professor Joanne Meers (SVS)

UQ 3MT Winner

- Micha Jackson (BIOL)

Australian Museum Eureka Prizes

- Optical Physics in Neuroscience (UQ)
- CF Air (cross-institutional)

W. H. (Beattie) Steel Medal

- Prof Halina Rubinsztein-Dunlop (SMP)

ARC Outcomes



Australian Government
Australian Research Council

ARC Discovery Projects 2019

Number of funded projects: 1. UNSW (88); 2. UQ (67); 3. Monash (65); 4. Sydney (62)

Faculty of Science - 22 grants (81 applications); Success rate 27% (overall 22%)

Lead School	Number of grants	Funding (\$)
School of Agriculture and Food Sciences	2	765,000
School of Biological Sciences	10	4,831,000
School of Chemistry and Molecular Biosciences	5	2,311,429
School of Earth and Environmental Sciences	1	310,000
School of Mathematics and Physics	4	1,574,000
Total	22	9,791,429

ARC Outcomes



Australian Government
Australian Research Council

ARC Discovery Early Career Researcher Award (DECRA) 2019

- Number of funded projects: 1. UQ (25); =2. Monash, ANU, Melbourne (22)
- Faculty of Science - 8 awards (37 applications); Success rate 21.6% (overall 17%)

Lead School	Number of grants	Funding (\$)
School of Biological Sciences	1	410,176
School of Chemistry and Molecular Biosciences	1	387,103
School of Earth and Environmental Sciences	1	390,000
School of Mathematics and Physics	6	2,245,645
Total	9	3,432,924

ARC Outcomes



Australian Government
Australian Research Council

ARC Linkage Infrastructure, Equipment & Facilities (LIEF) 2019

- Number of funded projects: UQ (2). Ranking 1. ANU (6); =2. Curtin, Monash, Adelaide, UNSW, Sydney (3).

Lead School	Grant	Funding (\$)
School of Chemistry and Molecular Biosciences	An integrated materials surface analytical facility	844,947

Research Income and Publications

HERDC Income Category	2014	2015	2016	2017	2018 (YTD)
1 Australian Competitive Grants	48,457,909	42,873,666	41,188,544	41,329,228	2018 HERDC categorisation not available until Jun/Jul 2019 Q3 Forecast EOY Research Income below
2 Other Public Sector Funding	6,206,100	5,316,559	5,152,275	4,869,754	
3 Industry and Other Funding	17,512,343	19,726,018	18,556,993	17,016,814	
4 CRC Funding	791,203	950,428	727,032	344,667	
TOTAL	72,967,555	68,866,671	65,624,844	63,560,463	64,740,986

Publications Data

- ❑ **1,094** publications 2018 YTD - *Thompson-referenced publications by Faculty of Science staff (Fixed-Term and Continuing Level A-E appointments)*
- ❑ Over the 6 years of 2012-2017 inclusive, full-year counts have varied from 1,329 to 1,697

Faculty of Science Internal Funding Schemes

Science with Impact Fund (SWIF)

❑ 2018 Round

- 35 applications received
- 14 projects funded
 - ✓ 8 Development
 - ✓ 6 Establishment
- Funding from
 - ✓ Faculty of Science \$368K
 - ✓ Partner organisations \$221K cash and \$271K in-kind

❑ 2017 Round

- Final reports for projects funded in 2017 due by 31 March 2019

Emerging Science Leaders Fund

❑ 6 applications received - 4 funded totalling \$46,642

❑ Successful applications included

- *Nature Masterclass*
 - led by SCMB, SBS
 - held 23 Nov 2018
- *Better Science in less time using open data science*
 - led by SEES, SMP, EAIT, GCI
 - postponed to 2019
- *Quantum Maiwar*
 - led by SMP, HASS
 - held 6 Nov 2018
- *EMCR Scientific Writing Workshop*
 - led by SCMB, SAFS, SBS
 - scheduled for 6 Dec 2018

Pilot PhD Mentoring Program

- Run by Graduate School using Chronus software
- 2 PhD student participants per faculty
- External mentors (govt, industry, NGO, alumni)
- Mentors must have a PhD
- Mentoring program started 26 October, to run for 3 months
- Once pilot has been completed, the aim is to step up to a much larger cohort for 2019



Research Themes and Development Workshops

□ Five (5) Research Themes proposed

- Based on analysis of all citation-indexed publications from the Faculty over the last 6 years (2012-18)
- Web of Science subject areas (and staff) grouped according to pattern of publication across subject areas (cluster analysis)
- Intensive researcher consultation via Theme Development Workshops (19 Nov - 04 Dec 2018)



Workshop #1 (19 Nov 2018)

- Plant Sciences
- Agronomy
- Soil Science
- Polymer Science
- Chemistry, Organic
- Food Science & Technology
- Chemistry, Applied

Workshop #2 (21 Nov 2018)

- Tropical Medicine
- Parasitology
- Virology
- Entomology
- Veterinary Sciences
- Agriculture, Dairy & Animal Science

Workshop #3 (26 Nov 2018)

- Nanoscience & Nanotechnology
- Materials Science, Multidisciplinary
- Physics, Applied
- Physics, Condensed Matter
- Chemistry, Physical
- Chemistry, Multidisciplinary
- Chemistry, Inorganic & Nuclear
- Engineering, Electrical & Electronic
- Energy & Fuels
- Physics, Multidisciplinary
- Optics
- Physics, Atomic, Molecular & Chemical
- Astronomy & Astrophysics
- Physics, Mathematical
- Mathematics

Workshop #4 (29 Nov 2018)

- Ecology
- Biodiversity Conservation
- Environmental Studies
- Meteorology & Atmospheric Sciences
- Geography
- Remote Sensing
- Water Resources
- Environmental Sciences
- Geosciences, Multidisciplinary
- Geography, Physical
- Palaeontology
- Geochemistry & Geophysics
- Zoology
- Biology
- Evolutionary Biology
- Oceanography
- Marine & Freshwater Biology
- Fisheries

Workshop #5 (04 Dec 2018)

- Biophysics
- Biochemistry & Molecular Biology
- Chemistry, Medicinal
- Biotechnology & Applied Microbiology
- Biochemical Research Methods
- Medicine, Research & Experimental
- Immunology
- Cell Biology
- Microbiology
- Infectious Diseases
- Pharmacology & Pharmacy
- Statistics & Probability
- Computer Science, Interdisciplinary Applications
- Mathematical & Computational Biology

NHMRC Impact Case Study Workshops

- Workshops organised by R&ID to support NHMRC Investigator Grant applicants in preparing highly effective Research Impact Case Studies.
- Five workshops - **3 for applicants at Emerging Leadership level** and **2 for Leadership level**.

Leadership Workshop 1 – hosted by UQ R&I, Institute for Molecular Bioscience and the Faculty of Science

Date: Wednesday 28 November 2018

Note: This session was recorded and the audio file will be made available on the [UQ R&I webpage](#).

Leadership Workshop 2 – hosted by UQ R&I and the Faculty of Medicine

Date: Tuesday 4 December 2018 11:15am to 1:00pm

Venue: Room 325, Mayne Medical School ([Building 0881](#)), Herston Campus

Live Stream (Zoom): <https://uqz.zoom.us/j/894035645>

Emerging Leadership Workshop 1 – hosted by UQ R&I and the Faculty of Medicine

Date: Monday 3 December 2018 2:45pm-4:30pm

Venue: Room 325, Mayne Medical School ([Building 0881](#)), Herston Campus

Live Stream (Zoom): <https://uqz.zoom.us/j/151982512>

Emerging Leadership Workshop 2 – hosted by UQ R&I and the Faculty of Health and Behavioural Sciences

Date: Wednesday 5 December 2018 9:15am-11:00am

Venue: Room 343, General Purpose South ([Building 78](#)), St Lucia Campus

Live Stream (Zoom): not available.

Emerging Leadership Workshop 3 – hosted by UQ R&I and Queensland Brain Institute

Date: Friday 7 December 2018 1:15pm to 3:00pm

Venue: QBI Auditorium, QBI ([Building 79](#)), St Lucia Campus

Live Stream (Zoom): <https://uqz.zoom.us/j/632082627>

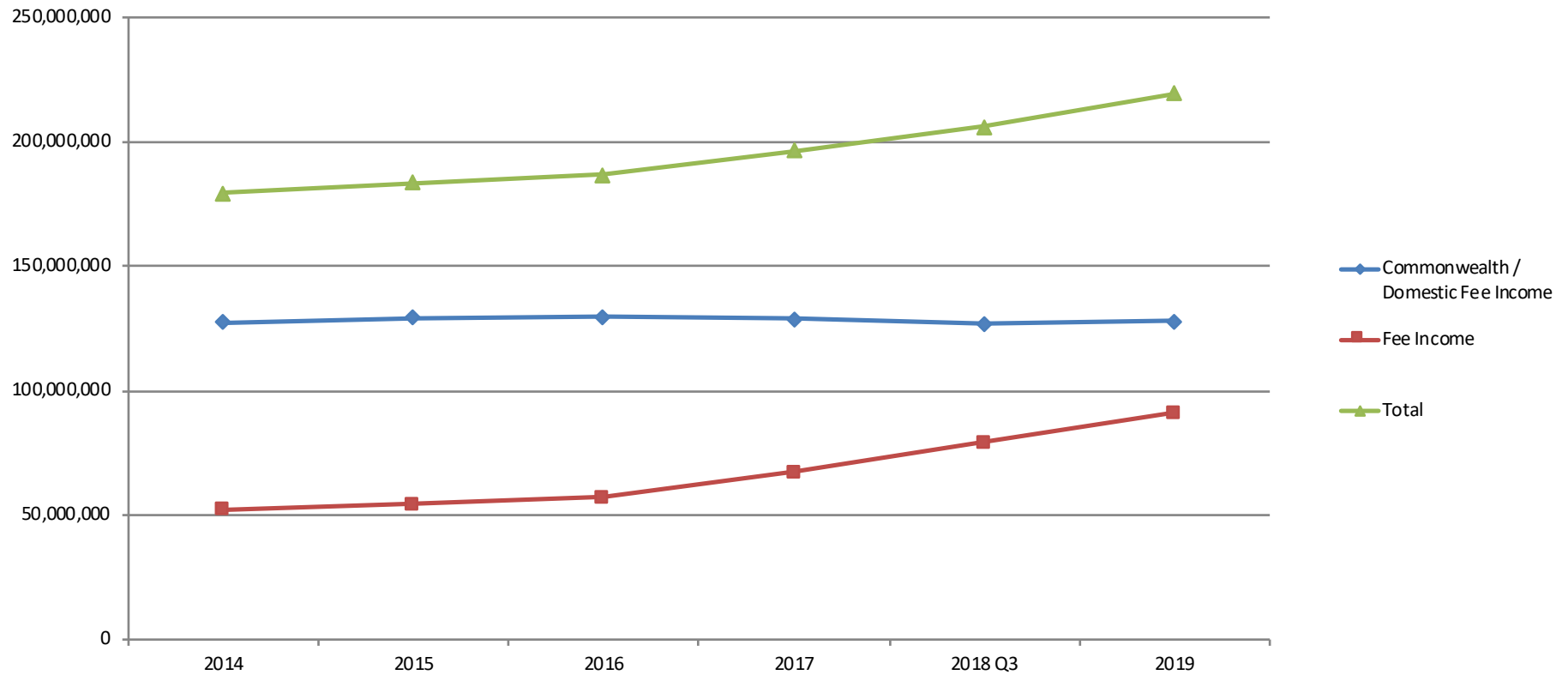


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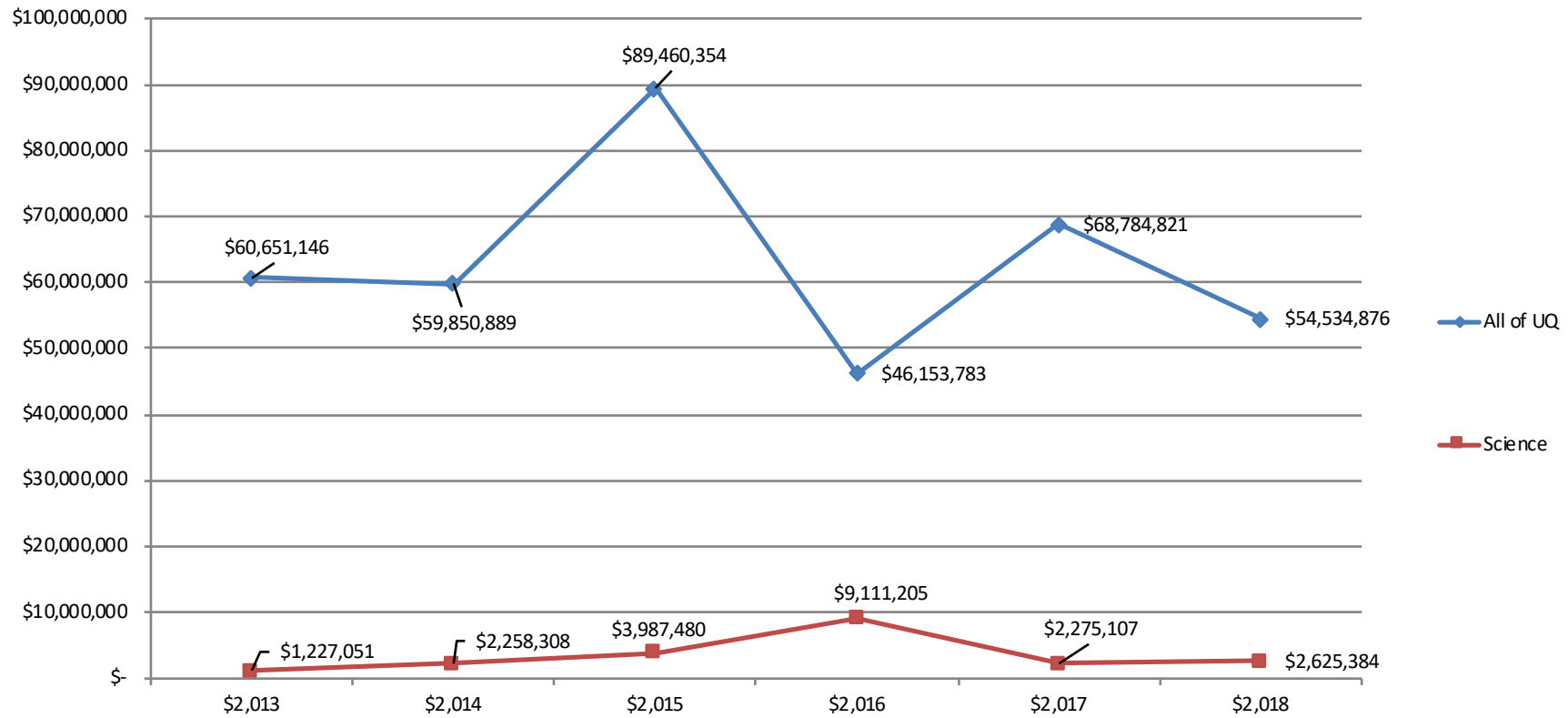
Faculty Executive Manager Report

Teaching Income 2014 - 2019



Funds Raised

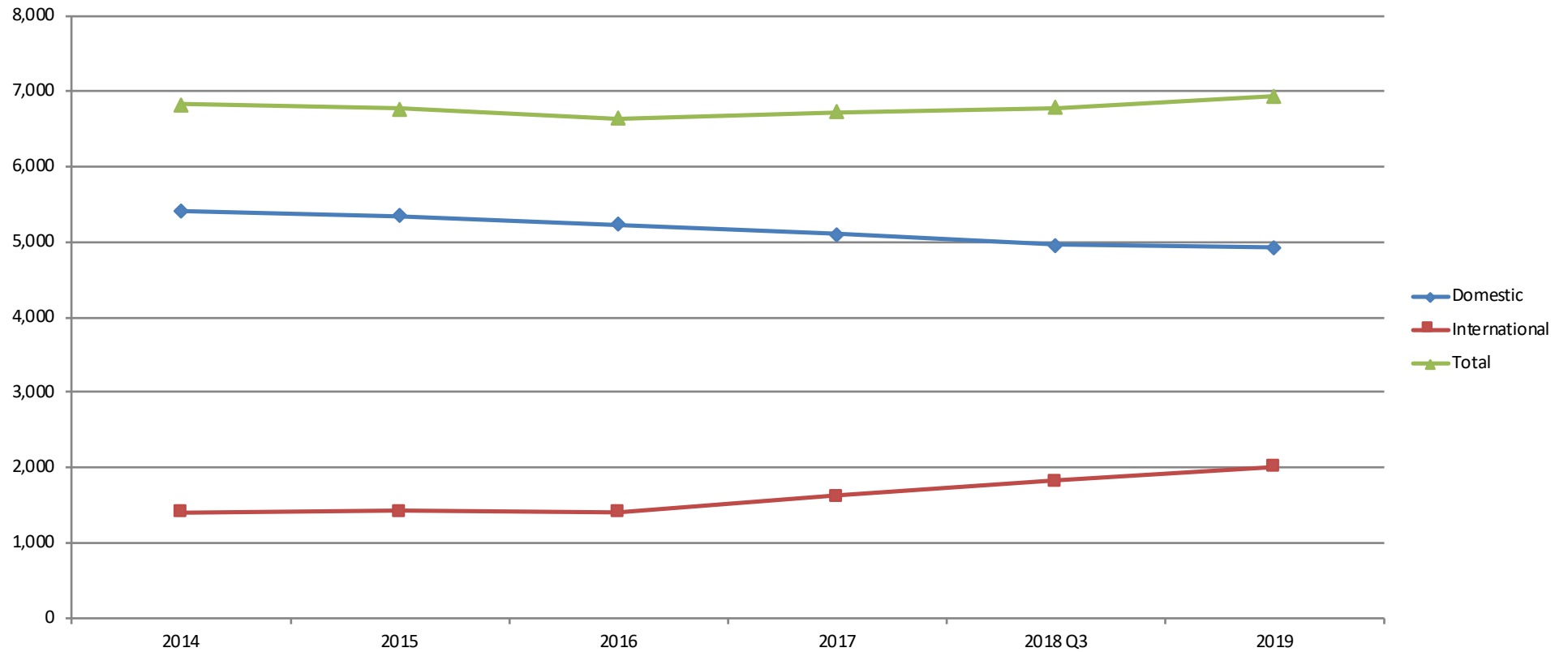
UQ Advancement Campaign Reporting 2013-2018 as of 30 Oct 2018



Operating Allocation

	2018 Budget	2018 Q3	2019 Budget	Change 2019 Budget / 2018 Q3
Commonwealth/Student Income	127.8	127.0	128.0	0.8%
Research Related Block Funds	33.0	33.2	30.6	-7.8%
Fee Income	83.3	82.7	95.1	15.0%
Total Gross Tax Model Income	244.1	242.9	253.7	4.4%
Tax (Overhead)	129.5	128.9	134.9	4.7%
Net	114.6	114.0	118.8	4.2%

Coursework EFTSL (UQ + PG)



OP Cut Off 2014 to 2019

Program	2014 Actual OP Cut Off	2015 Actual OP Cut Off	2016 Actual OP Cut Off	2017 Actual OP Cut Off	2018 Actual OP Cut Off	2019 Proposed OP Cut Off
Bachelor of Science	11	10	9	9	9	9
Bachelor Agricultural Science (Hons)	11	10	9	9	9	9
Bachelor Environmental Management	12	11	11	10	10	10
Bachelor Occupational Health & Safety Science	12	11	11	10	10	10
Bachelor of Food Technology	12	11	9	8	Note 1	Note 1
Bachelor of Agribusiness	13	12	11	11	11	11
Bachelor of Biotechnology	10	9	9	9	9	9
Bachelor of Regional and Town Planning	11	12	12	10	10	10
Bachelor of Biomedical Science (Hons)	7	7	7	Note 3	Note 3	Note 3
NEW Bachelor of Biomedical Science (3 year)				7	7	7
Bachelor of Veterinary Science (Hons)	1	1	1	2	1	1
Bachelor of Environmental Science (Hons)	10	10	9	9	7	7
Bachelor of Advanced Science (Hons)	3	3	3	3	3	3
Bachelor of Applied Science (replaced with 4 named degrees in 2016)	13	13	Note 2	Note 2	Note 2	Note 2
NEW Bachelor of Equine Science			12	12	12	11
NEW Bachelor of Sustainable Agriculture			12	12	12	11
NEW Bachelor of Wildlife Science			12	12	12	11
NEW Bachelor of Veterinary Technology			12	12	12	11
NEW Bachelor of Mathematics			4	4	4	4
Diploma of Science	12	12	12	12	12	12

Note 1 - Not offered to new students

Note 2 - B Applied Science replaced with 4 new named degrees

Note 3 - B Biomed Science (Hons) discontinued, replaced with new B Biomed Science (3 year)



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Thank you and questions