

Department of Earth and Environmental Sciences

Department Leadership Team Meeting

Minutes

Date: Wednesday 13th October 2021

Part 1 Attendees; Mike Burton (Head of Department)

Ann Webb (Deputy Head of Department)

Helena Gittins (Deputy School Operations Manager)

Cathy Walton (Chair of EDIA committee)

Katie Joy (Chair of Widening Participation committee)

Bart Van Dongen (Discipline Head of Education)

Gemma McCabe (PS Teaching and Learning Manager)

Gordon McFiggans (Discipline Head of Research)

David Polya (Line Manager)

Mads Huuse (Line Manager)

David Schultz (Line Manager)

Jon Pittman (PGR director)

Rhian Jones (Admissions)

Luis Garcia-Carreras (Employability)

Carl Jackson (PS Safety)

Rob Gardham (PS PA)

Rob Sansom (Forum Chair)

Russell Garwood (IT Director)

Apologies; Scott Heath (Line Manager), Lisa Jameson (PS Technical), David Topping (Line Manager)

Summary Actions

ACTION: Include in budget: Departmental equipment for WP students for fieldtrips (HG)

ACTION: Reach out to Head of Tech review re: consultation on appointment of MAGU technician (MB)

ACTION: Discuss with Jon Fellowes about capacity issue & where we are up to with PPMS (MB)

ACTION: Email all staff re: code to use for discretionary funding (MB)

ACTION: Confirm process for how to track spend on discretionary funding (HG)

ACTION: Define Terms of Reference for EES Advisory Board and compile list of people to approach (MB)

ACTION: Reach out to Scott Heath with questions about PGR structure (MB)

ACTION: Obtain mobile phone number ASAP for H&S issues - via Julia Cheung (CJ)

ACTION: Replace Sonya's details throughout building with emergency contact information (CJ)

Matters Arising

The minutes from the previous meeting were confirmed.

HoD Introduction and report

Mike Burton (MB)

An agreement has been reached that Data Science students will be transferred from Humanities to Science & Engineering if studying Environmental Analytics pathway. This enables the new position of Data Science lecturer, plus 2 further Data Science posts.

To ensure input on technical post recruitment, academics need some oversight.

ACTION: Reach out to Head of Tech review re: consultation on appointment of MAGU technician (MB)

MB proposed developing a system to quantify analytical work in labs to ensure we don't exceed capacity. Discussion included firstly defining capacity and to have ongoing conversation, and that this needs to involve RGLs.

Oversight by the Director for Williamson Research Centre was suggested, rather than solely RGs.

ACTION: Discuss with Jon Fellowes about capacity issue & where we are up to with PPMS (MB)

Discretionary funding: £350 pa per acad, to allocate through RGLS

A new code has been added onto the budget to use for this.

ACTION: Email all staff re: code to use for discretionary funding (MB)

ACTION: Confirm process for how to track spend on discretionary funding (HG)

Guidance on how it can be used and what it can be used for should be issued.

Extra strategic investment in the Dept.

This is due to this year's over-recruitment of students, and Finance's habit of announcing the surplus in May.

The proposal is to exhaust all the small bids put in recently, and then establish a 'wishlist' for use at short notice.

As a minimum the following was agreed by DLT: £240k on small bids, £15k on AV for G33/2.79 and £150k for Simon workshop/thin sections.

Further discussion included fieldtrip equipment, a second SCN, and WP support/bursaries. It was agreed by DLT to prioritise the initial items and put forward £400k as a back-up.

Line-managing fellows

There have been some questions raised about incoming non-tenure track independent research fellows: how they're line-managed, how they're mentored, what kind of NAP they do, etc.

MB presented a proposal categorising staff into 5 categories:

	Line manager	Mentor	NAP
Academic Staff	Standard	Self-organised	Completed full
			teaching NAP either in
			Manchester or
			equivalent previously
Academic Staff on	Standard	Senior Mentor	To complete full NAP
probation		(Merren Jones)	teaching assessments
			if not completed
			similar previously
Academic staff with	Deputy HoD (Ann	Senior Mentor	To complete full NAP
Presidential, DKO or	Webb)	(Merren Jones)	teaching assessments
FLF on probation			
Independent research	Research group lead	Senior Mentor	Attend NAP classes
fellow	or appropriate	(Merren Jones)	and Teaching for
	academic		Researchers, not the
			full teaching
			assessments
PDRA/Research fellow	PI of grant	New PDRA mentor	If active in teaching
paid by grant income		role?	then attend Teaching
			for PDRA

It was agreed that it would be a good idea to formulate these categories officially, to prevent ambiguity to fellows in the future.

Expansion of PGR students

It has been reported that the PGR student community will be expanded, particularly in EES and Physics.

A degree of funding is available but we need to be careful of our capacities.

Establishment of an EES Advisory Board

The Department has been asked to produce an external Board, composed of industry, stakeholders, local council etc. who meet annually. We would provide them with EES's overall strategic view/vision and they would advise. This would be separate from the Teaching Advisory Board.

We require Terms of Reference and suggestions of people to approach.

ACTION: Define Terms of Reference for EES Advisory Board and compile list of people to approach (MB)

Some initial ideas included the Head of NERC, alumni, British Ecological Society (contact: Richard Bardgett), representatives for diversity/gender equality.

Reports – please refer to grouped report handout

Recruitment & Admissions Update

Rhian Jones (RJ)
Report submitted

See report for further details.

Employability Update

Luis Garcia-Carreras (LGC)

Report submitted

It was reported that the University recently ranked 5th in the UK for employability, and 42nd in the world.

Teaching and Learning

Bart Van Dongen (BVD)

Report submitted

BVD highlighted that we will have a much stricter timescale to sort the administration and invigilation of exams. The deadline for submission of the final version of exams will be 10th December.

Staff will also need to consider a Plan B in case of escalating COVID cases/further lockdowns.

PGR Report

Jon Pittman (JP)

Report submitted

See report for further details.

Director of Research

Gordon McFiggins (GM)

Report submitted

ACTION: Reach out to Scott Heath with questions about PGR structure (MB)

EDIA

Catherine Walton (CW)

Report submitted

DLT gave its approval to commence a new initiative, 'Sustainable Development Goals and our Research' – a proposal by CW for a series of lectures/presentations aimed at the whole Dept., academic and otherwise.

IT Report

Russell Garwood (RG)

RG advised that for any changes to the staff list on the Dept. website, please email Russell and they can be amended.

PS Update

Carl Jackson (CJ)

The Dept. welcomed Carl Jackson who is replacing some aspects of Sonya's role. James Fields is the contact for risk assessments for travel.

ACTION: Obtain mobile phone number ASAP for H&S issues - via Julia Cheung (CJ)

ACTION: Replace Sonya's details throughout building with emergency contact information (CJ)

Helena Gittins (HG)

Academic Promotions for 2021/22 has been announced and further information will be coming soon about how to apply.

The new GTA system is up and running and working effectively.

AOB

JP confirmed that the issue raised by SH about PGR students not being able to access labs in the same way as others had been addressed.

AW asked about guidance for PGRs and whether vivas should be in person or online. It had been agreed to continue a variety of options including online/in-person/hybrid.

Date of next meeting

Thursday 11th November 2021, 9am, via Zoom.

5. Recruitment and Admissions

2022 Entry, Undergraduate (UG) Recruitment

New Scholarship: A sizeable donation has been made to the University by Suez UK. This is intended to support scholarships for Widening Participation (WP) students in two cohorts, beginning their degrees in the 2022-23 and 2023-24 academic years. Scholarships are intended for Law students and for EES students. We expect to be able to award around four EES scholarships in each of the cohorts, with preference for WP+ students from Greater Manchester. Each scholarship will be £2000 for each of three years of study.

Open Days: A university open week was held, 6-9th October. This included centrally organised campus tours and virtual sessions on 6-8th, and a virtual event with a one-hour EES subject talk on 9th October. The EES talk had about 30 attendees and was recorded.

UCAS interviews: All interviews will be held on zoom. They will be run on Tuesdays and Thursdays, with two events before Christmas and four (or five if required) in Semester 2. We are working on the basis of 300 interviews, similar to last year. A large number of academics have already signed up to do interviews (thanks to all).

Offer-holder days: Earlier plans for FSE level Offer-holder Days have been abandoned. We will now arrange these events at the Department level. We propose to hold one in February and one in April. Dates are still to be finalised, but they will likely be held on Wednesdays. We will plan events that include a taster-style introduction to our degrees.

Student Ambassadors (SAs): SA recruitment is now being handled centrally by Bee Mistry-Bhudia. Following a call for applications in September, we are hiring several Ambassadors for EES. There will be a further call later in the semester.

Explore Your Planet (EYP): Katherine Harrison is leading on the EYP programme for the coming academic year. This is aimed at showing Year 12 students (first year of A levels) how various science A levels are used in Earth and Environmental Sciences. We plan to hold two virtual events that are followed up with an on-campus event in June. We will have a structured format, and tie content more closely to the A level curricula than we have done in the past.

2+2 programmes: A meeting was held to discuss the strategy for marketing 2+2 programmes this year. Programmes discussed include:

- NUIST, Nanjing Environmental Science new 2+2 agreement in 2020, low uptake so far (David Topping)
- Jilin Earth Science need to revisit a proposal for a 2+2 programme that was discussed a couple of years ago (Kevin Taylor)
- Chinese University of Petroleum Contract is ending, needs renewing (Kevin Taylor)
- Fudan (Environmental Science) existing agreement but no current activity (Hugh Coe)

There is agreement that the ideal way to promote these programmes is through visits to the partner institutions, but this is of course difficult at present. We will try to engage with NUIST students remotely, this semester.

An FSE International Student Diversification Strategy task-and-finish group is meeting this semester, chaired by Wayne Keating. Rhian Jones and Dave Polya are on this group. The first meeting (8th Oct) was a discussion of how to handle the Chinese market for UG and PGT students. The number of students applying to Manchester has been increasing significantly. There is an identified need to manage Chinese student numbers on oversubscribed courses, in order to diversify international student intake. It was agreed that there are different needs at Programme level. Courses with potential for growth should be identified, for agents to emphasise.

2022 entry, Post-graduate Taught (PGT) Recruitment

The two current Petroleum MSc courses will be combined into a single MSc, Petroleum Geoscience, for 2022 entry. We are changing marketing materials to reflect this change.

We are advertising our PGT courses and PGR at the Geological Society's Virtual Careers Days, 13-15th October. This will include a virtual exhibition booth on 14th October.

There is a PGT Virtual Open Week, the week of 18th October. Two EES sessions will be presented on 21st October, one for MPEC / MESPOM and one for Energy MSc courses (Petroleum Geoscience, and Geoscience for Sustainable Energy.)

Rhian Jones, Admissions Tutor

6. Employability Update

- This year's departmental employability activities going ahead as planned, including one session for 2nd years delivered by the careers service, and the self-led 3rd year careers 'unit'. All in semester 1, nothing planned for semester 2.
- PGR employability event being planned.
- BP will be delivering an in-person event aimed at 1st and 2nd year environmental science students in early November, in preparation for some events students can apply for at the end of November.

Luis Garcia-Carreras

7. T&L Update

Resit exams, start of year and timetabling. Mitigation meeting and resit exam board have taken place and all is handled. PGT final exam board had to be postponed and will take place on the 20th October 2021.

Welcome week went fine and it was good to see so many students back in the building. Verbal report about the start of the year, IT issues and timetabling will be given during the DLT meeting.

Assessment Pledge/commitment 2021-22. The senate was asked to approve the Assessment Commitments for the next academic year on a short time schedule outside of the usual discussion period at a Senate meeting (see email from David Schultz to all on the 1st of October). For your information the 5 major points are:

- 1. Moderation and scaling we will continue with robust moderation and scaling processes at course unit level, to ensure that the marks for whole year cohorts are not out of line with those from recent prior (non-COVID-19) years.
- 2. Degree classification we will continue to extend 'boundary zones' for Examination Board consideration of a higher classification by 1%. In addition, PGT students will be able to achieve a distinction even if they require a re-sit or compensated mark.
- 3. Resit fees we will stop charging resit fees.

- 4. Faculty and University Examination Boards these additional opportunities for internal and external scrutiny of outcomes will take place in 2021-22. These boards are being scheduled to minimise any necessary delays to the release of results and graduation.
- 5. Mitigating circumstances we will implement the following measures, to ensure that our mitigating circumstances processes are effective and appropriate during the pandemic.

Feedback has been supplied but it is (generally) expected that all 5 points will go ahead. Re point 4, we have raised concerns that it will cause a delay and will mean that the final results will be released on a later date than normally would be the case. We asked for more clarity and suggested that the university should set a fixed final release date for all undergraduate and postgraduate programmes. These should be earlier than this year is/was the case to avoid what has happened this year since it makes us look bad if compared to our competitors and it is not fair to students. They need to know when they can expect their results.

Fieldtrips. The replacement fieldtrip for the second year students on the Earth and Planetary Science programmes (led by Steve CC) and the second year fieldtrip (led by Julian/lan) has been a success. The first overseas fieldtrip to Spain for the 4th year MEarthSci students (led by Stefan and Rhodri) is going ahead as planned.

Rhodri is already looking into the (current) requirements for oversees fieldtrips to the EU for around the Easter period (Germany, Italy and Spain) in relation Covid/vaccinations/quarantine. This since it is very likely that students and staff need to be vaccinated (with the correct/approved vaccine) to avoid having to go into quarantine when they get into the country. It is important to raise awareness among the student cohorts to make sure they get organised.

Exams. Faculty has informed us that in the light of the compressed timeframe, the data collection exercise for end of semester on-campus invigilated exam arrangements will need to be completed by the end of this week (15th October). We have started the process (Email from Gemma last week) to collate the data on which of our semester one/full year units have an exam which will be scheduled in the exam period. Unit coordinators have until the end of today to check the data. Tomorrow/Friday Julian and I have to add in the justification that applies to each unit that has an on-campus invigilated exam, using a small list of options agreed by Faculty and checkboxes to speed this up. These will relate to quality assurance, confidence in candidate identity, and any professional, statutory and regulatory body requirements.

The deadline for submission of the final version of the exam is also likely much earlier than in previous years. This partly due to the fact that printing is now done outside the university and likely takes more time. Missing the deadline means that the discipline is responsible for organising the exam themselves. We will inform all as soon as we have all the information.

Strategic departmental teaching planning document. Strategic planning document has been presented at the latest departmental board (updated version attached). 1 major update to point 6 (Petroleum Geoscience MSc's): Paperwork by faculty is approved and information online etc has been adjusted. Although this means that the withdrawal itself has been approved we are still required to provide the formal paperwork for reporting to the Teaching, Learning and Student Development and legal team. Jonathan/Rufus are working on this (deadline 18th October).

We need volunteers to be part of the fieldtrip carbon footprint group.

Quality Assurance Agency (QAA) membership. The university has (finally) renewed its membership or the QAA. This means that we are once again allowed to submit expressions of interest to join subject advisory groups if/when needed.

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Strategic departmental teaching planning meeting Thursday 09/09/2021 (update 11/10/2021)

Attendance: Brian O'Driscoll; Tucker Gilman; Steve Boult; Jonathan Redfern; David Topping; Amanda Edwards; Stefan Schroeder; Alison Pawley; Robert Sansom; Martin Gallagher; Neil Mitchell; Rufus Brunt; Kevin Taylor; Julian Mecklenburgh; Victoria Coker; Andrew Lowe; Greg Holland; Gemma Mccabe; Mike Burton; Bart van Dongen

Purpose of the meeting: To consider which Earth and Environmental discipline teaching related topics we want to focus on in the next year and how we are going to handle these. The idea is that <u>individual topics are not discussed in detail</u> but that it is decided whether or not a topic should be pursued, in which case a route needs to be planned, the basic principles need to be set etc. The idea is that, for most of the topics, we are ready for a series of departmental teaching meetings in January (like 2 years ago) during which final decisions can be taken. This will give the department enough time to deal with the outcomes through unit/programme amendments, budget planning etc.

Outcomes: An itemised list of the topics that will be considered further is put forward, as listed below. The topics listed contain, besides a brief summary statement, (if relevant) details of the team that will be working on this topic over the next couple of months (spokesperson is underlined). If not stated otherwise a report or something similar will be produced for (final) discussion in January. All teams are expected to submit a small interim progress report for the next departmental Teaching and Learning (T&L) meeting.

Topic list:

1) Changes in unit specs. All.

Unit coordinators may want to make changes related to their unit specs. These should be proposed/discussed with the relevant pathway cohort tutor and checked if this means a major or minor change (Bart and Gemma will provide the relevant information to the pathway cohort tutors and Tucker and Brian will make sure that it is which pathway cohort tutor is responsible for which unit). All major changes need to be proposed/discussed by the end of January to allow programme changes to be implement on time. This deadline is for all units, irrelevant if these are first of second semester units.

2) Changes on pathways. Pathway cohort tutors, Tucker and Brian.

Although there are no major changes on the undergraduate pathways/programmes expected, new units can be considered. It is not normally expected that the overall number of EART units will increase since this would increase the overall workload and can cause problems with timetabling etc. This indicates that when considering a new unit there is a need to carefully consider if/which unit this will replace on the curriculum, for which pathways this new unit will become core, and what the impact will be across both programmes (particularly related to programme level intended learning

outcomes). Proposals for any units therefore need to be discussed with the relevant programme directors, in the first instance. There is also a need to carefully look at the provision of UCIL units to makes sure that this is as comparable as possible across all pathways.

3) First year assessment discussion. Mandy, Julian, David T. and Rob.

Considering that the current regulations around the first year 40 credit units and assessments is causing problems, particularly if a student fails a unit and has a combination of deferrals and referrals. We are urged by the school/faculty to reconsider this carefully.

4) Geology with physical geography. Neil, Brian, Bart, representative from Geography.

Considering the relatively low number of students and ongoing challenges with this pathway a review of this pathway is needed. Possible outcomes could be that we attempt to fix issues arising and continue the pathway or that we discontinue the pathway.

5) New 4th year. <u>Tucker</u>, Brian and Rhodri.

Developing/checking/implementing the new final year that will be introduced for all of our undergraduate programmes in the next academic year. This includes a complete new, student led, fieldtrip.

6) Petroleum Geoscience MSc's. Rufus and Jonathan.

Merging of the two MSc's into a single programme. This task is already underway and paperwork has recently been submitted to faculty. We are currently waiting for feedback but it is expected that this will all be finalised and changes implemented before January.

Update 11/10: Paperwork by faculty is approved and information online etc has been adjusted. Although this means that the withdrawal itself has been approved we are still required to provide the formal paperwork for reporting to the Teaching, Learning and Student Development and legal team. Jonathan/Rufus are working on this (deadline 18th October).

7) MPEC remote. Andrew, James and Steve B.

Development of a remote version of the MPEC MSc. This is an ongoing task and NPP1 needs to be submitted as soon as possible.

8) Data science. <u>David T.</u>, all programme directors, Paul, Bart and Mike B.

Data science is considered to be a growth area within the faculty meaning that there is a need to consider what can/should be done in our discipline. Discussions should include potential expansion of the existing Environmental Analytics pathway on the Data Science MSc (maybe reforming it to a joint Earth and Environmental Analytics pathway?), staffing (including proparation of 'business model' for appointment of new post(s)), (group) projects, involvement in a potential new faculty wide undergraduate programme and development of novel MSc pathways. Depending on developments in faculty this may be something that takes time and is likely not completed by January.

9) Projects. Andrew, all pathway cohort tutors, Brian, Tucker, David S, Chris, somebody from PS.

Work out the final plans for scalable (cohort) project provision of MPEC projects (partly depends if the plans for super GTAs goes ahead) and considering how undergraduate projects can be delivered next academic year and in the future.

10) Moderation process. Julian and Gemma.

Our current moderation system is not completely in line with the regulations and needs a complete overhaul. Changes need to be implemented as soon as possible and a full proposal is expected for the next T&L meeting

11) Units with single academic coverage. <u>Vicky</u>, Bart and programme directors.

A number of our (regular) units are currently being delivered by a single academic member of staff. These may be single points of failures and could cause complications if a sabbatical is requested. Should the intention be that most (if not all) units should be delivered by at least 2 academic members of staff? What support should be offered by the department if this is not possible/preferred and a unit remains to be delivered by a single academic? Should there be a backup agreed/on record (through the line manager system) for all these units to be used when and if the need arises?

12) Teaching out of term time. Bart, Cathy W., Rhodri, Brian, Tucker, student reps, Vicky, Gemma.

Currently not all teaching is done in term time and there are, for instance, a number of EART listed fieldtrips that run in the 'holiday' period. Is this fair? Should a student be able to do the full 120 credits each year in term time? What will be the impact on the delivery of all our teaching if we would move to a model that would allow this? What do our (main) copetitors do?

13) Accreditation. Brian, Tucker, Rhodri and Bart.

This academic year we will have, for the first time, students who will graduate from our new undergraduate programmes. The accreditation for these programmes is not completed yet, meaning that (i) there is an urgent need to consider which programmes/pathways will need accreditation and (ii) complete the application process as soon as possible, where possible.

14) Sustainable Development Goals (SDGs) in Teaching. Vicky, Cathy W, Bart, student reps.

We are currently looking at how SDGs are used in our teaching for each course unit. Based on the outcomes of the survey a list of recommendations will be prepared.

15) Fieldwork inclusivity. Rhodri, Cathy W, Sonya, Bart, student reps.

Discussions are ongoing of how we can make our field courses more inclusive. A list of suggestions has recently been proposed and will be presented/discussed during the next T&L meeting.

16) Fieldwork carbon footprint. Cathy W, Looking for volunteers.

There is a need to consider the carbon footprint of our field courses. Things to consider include, for instance, what to with courses with a destination that can only be (reasonably) reached by airplane and thus likely have a substantial carbon footprint? Should these be banned all together? Or should the number of those EART fieldtrips on our programmes be limited to max 1 per pathway/programme during the whole undergraduate experience, for instance, only in the third year? What to be done with non-EART fieldtrips? Is there a way we can make the whole departmental 'field course package' carbon neutral, or as close to carbon neutral as possible, in the next 5 year?

8. PGR Update

Admissions and recruitment:

Admissions numbers for the 2021 cycle are: 303 applications, 90 offers made, of which there are 66 acceptances. We are also now starting to collate application numbers for the 2022 cycle and will begin reporting these for subsequent meetings.

We are still awaiting details on the STFC DTP and EPSRC DTP studentships available for Sept 22 starts. The first stage of the BBSRC DTP studentship call has completed and nine proposals submitted from EES staff were approved and will now be advertised.

Other current open calls include the Synthetic Biology Manchester-Tsinghua Dual award PhD Programme (15 November deadline for proposals) and the Manchester-Melbourne Dual award PhD Programme (25 October deadline for proposals). Details of both schemes have been circulated to all staff.

The calls for the University of Manchester-Chinese Scholarship Council (CSC) studentships and the President's Doctoral Studentships (PDS) will open soon with deadlines for the CSC scheme in mid-January 2022 and for the PDS scheme in early February 2022.

I have also encouraged staff to advertise a self-funded PhD project proposal via FindaPhD.com, which may also be useful at attracting potential students for internal funded schemes (e.g., CSC, PDS, Dean's studentships). Faculty now funds these adverts for both funded and self-funded projects.

Details of the new PGR Admissions software system (PGR Evaluations) have been sent to staff. EES are one of the departments piloting this system. It should have gone live this week but due to some Campus Solutions upgrade issues this will be delayed until next Monday (18 October).

As part of the centralisation of PGR admissions processes there will also be revisions to the PGR fee structures (awaiting FLT approval) but I do not yet have the details on these.

There will be an EES PGR presentation during the PGR Virtual Open Week given on 3rd November to promote our programmes and research.

New starting PGRs:

We welcomed 38 new PhD, MPhil and MSc by Research starters into the department at the end of last month and had combined in-person and online induction presentations and activities. We have made new PGRs aware that they should have begun meeting their supervisors to discuss PGR-supervisor expectations, project plans and local induction requirements (and reminded supervisors of the same). We will be contacting PGRs later this month to check that they are happy with their programme start and that supervisor meetings have taken place.

PGR working arrangement:

A message was sent out to remind staff that unless risk assessments of lab space determines a continuation of low occupancy levels, there should no longer be any lab rotas in operation in our research spaces and that access to our research facilities has reverted to pre-pandemic levels providing our researchers with out of hours and extended opening times (all dependent on risk assessments and other paperwork being in place).

We are also surveying researchers in the department to check that they happy with their research environment and access to supervision following this relaxation and to let us know if there any concerns.

NERC DTP scoping discussion:

The first meeting took place with representatives from each Research Group, alongside myself, HoD and HoR to discuss initial thoughts for the NERC DTP3 bid. A summary of the meeting discussion

points is <u>here</u>. The discussion focussed mainly on opinions and suggestions related to partnership structure, research themes, training and the suggested development of a writing team with different individuals to lead on different aspects of the bid (external engagements, training/education, research themes, EDIA, etc).

It was highlighted that any discussions and decisions of involvement with other universities should not be delayed long past the end of 2021/early 2022 and we should let University of Liverpool (as our current NERC DTP partner) aware of our intentions as soon as possible. It was also suggested that early engagement with potential industry partners particularly to discuss training ideas is highly beneficial.

Current actions from this meeting was the development of a timeline for bid development and organising meetings with other Manchester groups (e.g. SEED, MACE).

Current NERC DTP:

Following Geraint's retirement last month, I have formally taken over as NERC DTP lead for the final few months until all the remaining cohorts have completed.

Jon Pittman

9. Research Update

DHoR Report Oct 2021; 13/10/21 Gordon McFiggans

Faculty Research Centres: "Governance" document for internally funded research centres circulated with Appendix A; this does include a process for application to be an FSE recognised Centre, but still does not describe Faculty Research Strategy with which all Centres are expected to align. Which brings us to...

School Research Strategy: the last SoNS research committee on 6^{th} Oct decided that 2 x ½-day meetings will be organised to define the research agenda for consistency with emerging FSE strategy. The first will be at the end Nov / start Dec 2021. In light of this – need to return to the last month's standing item:

Departmental Research Strategy: We have been asked to come up with an overarching DEES 20 year research strategy to see us through the next decade or two – i.e. the longer term view of what and who we are; in particular focusing on what we should stop doing. Thoughts and comments required. The SoNS research priorities have been stated as:

- i) Sustainable futures and net zero
- ii) Integration of natural sciences with healthcare including environment
- iii) Modelling and the broad area of digital data science

We have been asked for a similar DEES-focussed set of 3 (maximum 4) research priorities.

UKRI FLF round: next round the applications will focus on i) Sustainability and ii) Advanced Materials. Currently no knowledge of whether it is possible / how to influence these priorities. Likely possible only by coming up with a clear Dept. / School / FSE strategy.

PGR Growth Strategy: separate document provided outlining 30% increase in capacity and delivery strategy (with associated funding). Need to discuss the implications on resources, time and space, whether the degree of matched funding is appropriate and how the plans translate into actual numbers whilst also increasing quality. Interesting challenge.

PS challenges: recognised at SoNS Res. Comm. that there are challenges in various areas of PS support. If there are urgent / critical HR and Finance problems, can we provide a rank ordered list for escalation to Emma Reilly?

Overhead increases: this was rolled out late this year, with some attendant problems to multi-stage proposals. It is recognised that future communication must be done in a timely way - Finance to prepare comms to cascade to Departments ahead of problems in future years.

CO₂ emission targets for research (and other operational activities): seems commitment to reduce FSE CO₂ emissions from travelling by 50% compared to 2018/19 has been overturned and now only includes the discretionary component of emissions (i.e. those we're not committed to).

Awards and Applications: no DEES update but FSE Deep Dive extract attached as separate document. Some discrepancy in the way this is reported and not presenting us in as favourable a light as we'd recognise. Request made for monthly P- & R-code updates, annual success rate per staff member (labelled with beacons / themes / platforms / categories & EDIA categories) and most importantly regular reporting of everything that's included in the Deep Dive data, so we can locally check for consistency with what's centrally used.

Non Tenure-track Fellow Management: Thoughts from RGLs condensed into:

- i) It concerns us that this is written as if the decision on TT or non-TT is taken before a fellow arrives and is thereafter immutable.
- ii) We think a RS URF, STFC ER or equivalent senior fellow be line managed by someone who sits on the DLT so that they can discuss their contribution to the department's strategic goals across all areas of activity.

[Appendices]

Faculty of Science and Engineering

Policy on the Governance of Internally Funded Research Centres

The delivery and promotion of critical mass research activity within the Faculty may on occasion be strategically delivered through the formation of a research 'centre'. This document outlines the policy for their formation, support and governance, and closure.

A Research Centre is a formal grouping that exists to add value and focus to the research activities of colleagues and the intellectual life of the Faculty more broadly. Research Centres may be disciplinary or cross-disciplinary within or across Departments, Schools and Institutes. They serve to organise and support a critical mass of research colleagues and research activity, with a shared research agenda.

A Research Centre is a formal structure which exists to achieve the strategic research goals of FSE. Research Centres are expected to:

- have a coherent research agenda which transcends a particular research project;
- have a clear and well-designed strategy in place for supporting excellence in the quality of research outputs – including mentoring and peer review of draft outputs and funding applications;
- have a clear and well-designed strategy for promoting their research profile, engaging in knowledge exchange and achieving impact.
- generate a regular stream of research funding, at a level appropriate for the field of enquiry;
- have a coherent and realistic plan to securing external funding and recognition;
- engage and support the career development of PGRs and ECRs as well as more established members.

A Research Centre will enhance the quality and impact of the research it supports by serving most, if not all, of the following purposes:

- 1. To be a vehicle for communicating, promoting and branding research and knowledge exchange to staff and to the outside world.
- 2. To facilitate implementation of particular areas of Faculty research strategy.
- 3. To provide a structure to secure external funding in a specific area of research.
- 4. To facilitate cross-discipline, cross-School and/or cross-Faculty work on a shared challenge or problem.
- 5. To bring together, and make visible, a critical mass of cognate researchers.
- 6. To provide a supportive environment for research staff and PGR students; and their recruitment and retention in a competitive market.

Establishment of Research Centres

A Research Centre can be established through application to the Faculty's Research Leadership Team (FRLT). FRLT is responsible for the initial assessment of proposals to establish new Research Centres, seeking broader input within the Faculty as necessary. Proposals are to be completed following the guidance in Appendix A and evidence:

- 1. A critical mass (typically >5) of committed academics with a track record of collaboration around a set of cognate research interests.
- 2. A well-focused but sufficiently broad intellectual agenda.
- 3. The capacity to make a major contribution to implementing one or more aspects or highlighted themes in the Faculty research strategy.

- 4. A track record of research activities and collaboration which clearly belong to the group and which go beyond that of organising regular seminar and lecture series and/or disseminating news and information. This may include, but is not restricted to, multiple successful external funding applications; a closely linked postgraduate programme; the hosting of a series of visiting professors and/or postdoctoral fellows; a range of prominent research impact and knowledge transfer initiatives.
- 5. A clearly distinctive profile vis-à-vis other existing Centres or Institutes in the Faculty

Proposals supported by FRLT will be submitted to the Faculty Leadership Team (FLT) for consideration and approval, with Research Centres having a 3-year lifespan before renewal.

Governance, operation and review of research centres

Research Centres are governed by the Faculty though FRLT with an identified Centre Head responsible for its leadership and reporting. Research Centres may appoint an Advisory Board, where FRLT agrees this is appropriate, to provide an external perspective to inform the Centre's strategy, policies and activities.

The standard terms of reference of an Advisory Board are:

- 1. To advise on the general strategy for the Research Centre in order to achieve its objectives.
- 2. To advise on actions to be taken to advance specific agendas of the Research Centre, including research impact, business & funder engagement.
- 3. To advise on issues referred to the Board by the management group. These may include: (i) proposed modifications to the Research Centre's activities or budget; (ii) specific communication and dissemination activities.
- 4. To comment on the draft Annual Report.

Research centres should be of such size that they are able to be financially self-supporting, recovering the cost of any support from research grants & awards. At the discretion of the FLT a small budget may be provided to support the establishment of newly formed Centres.

Research Centres are *reviewed annually*. They are required to submit an annual report to FRLT using a designated template which covers factual statements of performance and trajectory and self-evaluation (usually by end of May). FRLT considers the Research Centres' reports and in September submits an annual overview report to the FLT which summarises the activity and performance of all its Research Centres, including the creation and dissolution of Centres.

A periodic review will take place in the third year of a Research Centres establishment or following renewal in place of the annual review. FRLT will reach its evaluation of the Centre's track record of performance and contribution on the basis of:

- The Centre's delivery of research impact in its broadest sense.
- Achievements and progress made against the objectives identified when the Centre was established or last renewed.
- Approval of objectives for the forthcoming three-year period, and beyond if appropriate, including but not limited to research projects, publications, events and visitors
- The financial position and sustainability of the Centre (is it affordable?).
- The 'value-added' of the activity being organised through the existence of a Centre.

FRLT will decide on this basis whether:

- to approve the continuation of the Centre for a determined period (normally three years) subject to any specified conditions;
- to recommend that where a Research Centre has failed to meet its core objectives that it is given a one-year probation period with clearly defined objectives to improve performance to be attained during that period, failing which it would be closed down;
- to recommend to the Faculty Leadership Team the discontinuation of the Centre and an exit plan.

If an existing Research Centre wishes to significantly alter its initial orientation and profile, it will need to re-apply for Research Centre status.

Appendix A - Application for FSE Research Centre Status

Applications for FSE Research Centre Status should be limited to a maximum of 2 sides of A4 (font size 11) and provide the following information:

- Proposed Centre name and its strategic purpose
- Specific objectives against which the Centre's success can be evaluated
- Relevant contextual information
- Proposed Centre management arrangements and resourcing

Applicants are advised to carefully read through the FSE Policy on the Governance of Internally Funded Research Centres noting that such Centres should have a specific role that is distinct from Departmental research groupings or Research Institutes. Repeated below are aspects that the case should provide evidence for:

- 6. A critical mass (typically >5) of committed academics with a track record of collaboration around a set of cognate research interests.
- 7. A well-focused but sufficiently broad intellectual agenda.
- 8. The capacity to make a major contribution to implementing one or more aspects or highlighted themes in the Faculty research strategy.
- 9. A track record of research activities and collaboration which clearly belong to the group and which go beyond that of organising regular seminar and lecture series and/or disseminating news and information. This may include, but is not restricted to, multiple successful external funding applications; a closely linked postgraduate programme; the hosting of a series of visiting professors and/or postdoctoral fellows; a range of prominent research impact and knowledge transfer initiatives.
- 10. A clearly distinctive profile vis-à-vis other existing Centres or Institutes in the Faculty

Prior to submitting an application, informal discussion with a School Head of Research and/or the Associate Dean (Research Institutes) is recommended.

Completed applications should be submitted as a pdf document to the FSE Vice-Dean Research

FSE PGR Growth Strategy Scott Heath, Rich Curry, Chris Dolan

<u>Our Vision:</u> The Faculty is competitive but not leading in terms of our PGR population. Whilst our research performance is strong, and significantly supported by our PGRs, we aspire to be a top 25 university internationally. Maintaining the current status quo will not allow us to progress towards this target, access new opportunities, and meet the evolving needs of the world/ecosystem in which our PGRs will operate. We have the ambition to lead PGR training, not follow, to ensure

Box 1: PGR Highlights: PGRs contributed to 690 outputs and 27 impact cases in the 2021 REF period

that our PGRs are prepared and competitively placed to become the future leaders of the areas in which their careers take them. This then creates a virtuous circle so they maintain engagement with UoM over their career.

Our Current Position: Whilst the quality of our current PGR contribution does not necessarily directly scale with quantity, our ability to deliver the ambitious impact our vision aims for does require the capacity to deliver. Analysis of PGR numbers in FSE in comparison to Oxford, Cambridge Imperial and Edinburgh show that our PGR population would need to increase by 30% overall (~650 PGRs) to match their capacity. Based on academic:PGR ratios this indicates a need for a 35% growth (480 1FTE PGRs) in the School of Natural Sciences, focussed in EES and P&A; and a 18.6% (180 1FTE PGRs) growth in Engineering, focussed in MACE and CEAS (see appendices 1 and 2). Appendix 2 calculates the number of doctorates per academic to negate the effect of Oxford and Cambridge Part 2 students in some disciplines.

The Opportunity: Increasing our PGR capacity by 30% presents us with the opportunity to add strategic value beyond what we currently deliver. It is notable that, given our current disparity with competitors, our current level of PGR activity provides a substantial contribution to FSE in terms of engagement with industry, research outputs and impact as illustrated in Box 1. This will continue under the proposed strategy whilst critically enabling us to invest in areas aligned to support a wider research and innovation strategy, support our international strategy and deliver a significant uplift in the quantity and quality of our research outputs and impact. It is also possible through this proposed investment to broaden the range of PGR pathways available to support teaching and learning, increase accessibility and address ED&I challenges, and support entrepreneurship.

<u>Delivery of PGR Growth:</u> The Faculty has approved resources for enabling this investment in PGR numbers over a 6-year delivery framework. Costings are provided below based, on models which exclude fee waivers as a direct cost. The alternative approach of including such fee waivers provides an overly distorted financial cost of the strategy as it assumes that all fee waivers are replacing what would have been guaranteed fee income. This is clearly a false premise as if this was the case these PGRs students would already be enrolled within the Faculty and we would not need to increase our PGR population by 30% to match that of our sector equivalents. This approach also does not associate a value to the outputs and impact of our PGR cohort.

The following principles are agreed:

- The initial focus of PGR number growth will be on ECRs (thereby strengthening UoM ability to attract the best);
- The outcome of REF will inform us of our areas of strength allocation of increased numbers of PGRs to these areas will seek to ensure we don't lose traction here;
- The HoS's, SHoR's, ADs and VDR will make cases for new areas that need strengthening to become world leading.

The additional PGR capacity will be delivered through consideration of the following additional actions:

- Aim to 45% of DTP studentships on a 0.5 basis that supervisory team finds external match;
- Aim to allocate School studentships on a 0.5 basis that supervisory team finds matching external funding;
- Create 'super-GTAs' positions to deliver high quality T&L, particularly in departments where we have over recruited at UG/PGT whilst pursuing PGR degree on a 60-80% FTE research basis;
- An increase in Dean's awards;
- Increase support to existing CDTs for additional PGRs funded 50:50 with industry;
- Increase the number of Dual awards;

Item	Additional PGR p.a.	Cost Estimate (over 42
		month programme) £
Allocate DTPs at 0.5	30	0
Allocate School Awards at 0.5**	20	546K
Super-GTA creation**	20	1.09M
Deans Awards**	20	1.09M
Support existing CDTs at 0.5**	10	273K
Duals Awards*	10	546K
Totals	110 p.a. for 6 years	7.525M

These additional PGRs will result in increased output and impact for the next REF. Evidence from our latest REF shows that our PGRs were authors on 690 of our submitted outputs and 27 of our 42 impact cases. At a conservative estimate of 1 high quality publication per PGR these PGR will generate more than 650 extra outputs of over a 6-year period. Additionally, the increase in our academic:PGR ratio will feed into national and international league tables and comparisons which is clearly important but more complex to quantify.

Further considerations:

An increase in the amount of non-UKRI funding (e.g. School Awards, Deans Awards, Dual Awards) allows us to recruit and unrestricted number of high quality EU/Int students (UKRI funding restricted to 30% of the cohort cap). Following either the rapid or steady growth strategy has no real impact on the overall cost – however following a rapid growth strategy would allow the benefits of our increased research power to be realised more quickly (i.e increased numbers of high quality publications, increased grant income and impact.)

Flexing our DTP to allow us to award half studentships allows us to increase the number of PGRs who can apply for a doctoral prize. Presently PGRs on Deans awards and PDS awards (often our best PGRS) are ineligible for the Doctoral Prize as they didn't have an EPSRC component to their funding. This model allows to award these PGRs half funding from the DTP half funding from PDS/Dean's awards making them eligible for the Doctoral Prize.

New CDTs – there is likely to be a new CDT call in 2023 – A University of the calibre of Manchester should be hosting 7-9 CDTs. Whilst this is out of scope for plan A – successful growth in our CDT numbers in any future call would allow us to reduce the numbers of PGRs that we have to fund in Plan B to achieve our target growth.

In School level PGR strategies, we need to:

- Look at the local/place agenda so the idea of growing CDTs/EngDs with local companies (work with the AD-BE);
- Recruit PGRs in cohorts (they can still be working in diverse but related areas) rather than put them in as individuals, the added value from this both to the PGR and the project outputs is enormous.
- Look at the possibility of creating integrated masters/integrated PhD to try to encourage more sponsored students from the Middle East to stay and do a externally funded PhD -we may want to target specific master courses in EEE /EES (MPEC) or the new CEAS/EES Masters.
- Look at more dual / 2 +2 PhDs to help us diversify our PGR population (work with AD Int).
- Before the next REF look carefully at where we return our staff to optimise the Academic: PGR ratio's

Estimated Budgets:

Note – after discussion with Gemma Lyons fees have been removed as these are not "real" costs – providing we are not displacing fee paying students.

It is noted that there will be additional unspecified costs for ensuring the required PS support is in place to cover the increase in cohort size.

Budget Forecast Plan B – steady growth:

Year	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30	30/31
# PGRs	65	130	195	260	260	260	195	130	65
£	1,014,585	1,014,585	1,014,585	507,293					
£		1,034,877	1,034,877	1,034,877	517,438				
£			1,055,574	1,055,574	1,055,574	527,787			
£				1,076,686	1,076,686	1,076,686	538,343		
£					1,098,219	1,098,219	1,098,219	549,109	
£						1,120,184	1,120,184	1,120,184	560,091
Total (£)	1,014,585	2,049,462	3,105,036	3,674,429	3,747,917	3,822,875	2,756,746	1,669,293	560,091

Appendix 1 -Academic:PGR ratio – Note data for Oxford, Cambridge, Imperial and Edinburgh are against HESA cost Centres

	Manchester		Oxford	Imperial	Cambridge	Edinburgh
Eng	3.67	Eng	3.9	4.23	3.11	
NS	3.14	NS	4.14	3.58	4.24	
CEAS	3.48	Chemical Eng		4.33	4.7	0.35
CS	4.16	IT Systems & Software Eng	2.55		2.8	2.78
EEE	3.59	EE and Comp Eng		3.39	1.9	1.37
MACE	3.26	Civil/Mech/Aero & Production Eng		6.25		7.13
		General Eng	5.25	3.13	3.77	3.18
Chem	3.26	Chemistry	6.62	6.33	7.55	3.39
EES	3.67	Earth Marine and Env Sci	2.74	2.61	2.5	2.05
Materials	4.57	Mineral, metallurgy & materials Eng	5.58	4.64	4.39	
Maths	1.93	Maths	2.84	2.1	2.03	1.14
P&A	6.10	Physics	3.06	2.24	4.73	1.76

Appendix 2 -Academic:Doctorate ratio – data are against HESA cost Centres

	Manchester	Oxford	Imperial	Cambridge	Edinburgh
Chemical Eng	0.666		1.31	1.215	
IT Systems & Software Eng	0.696	0.627		1.238	0.6
EE and Comp Eng	0.784		0.56		
Civil/Mech/Aero & Production Eng	0.626		0.85		
General Eng		0.781	0.661	0.885	
Chemistry	1.91	1.84	1.11	2.16	1.02
Earth Marine and Env Sci	0.4	0.46	0.9	0.3	0.3
Mineral, metallurgy & materials Eng	0.384	0.72	1.06	0.796	
Maths	0.49	0.53	0.44	0.57	0.41
Physics	0.59	0.678	0.755	1.169	0.475

Apendix 3 – Raw data for Manchester

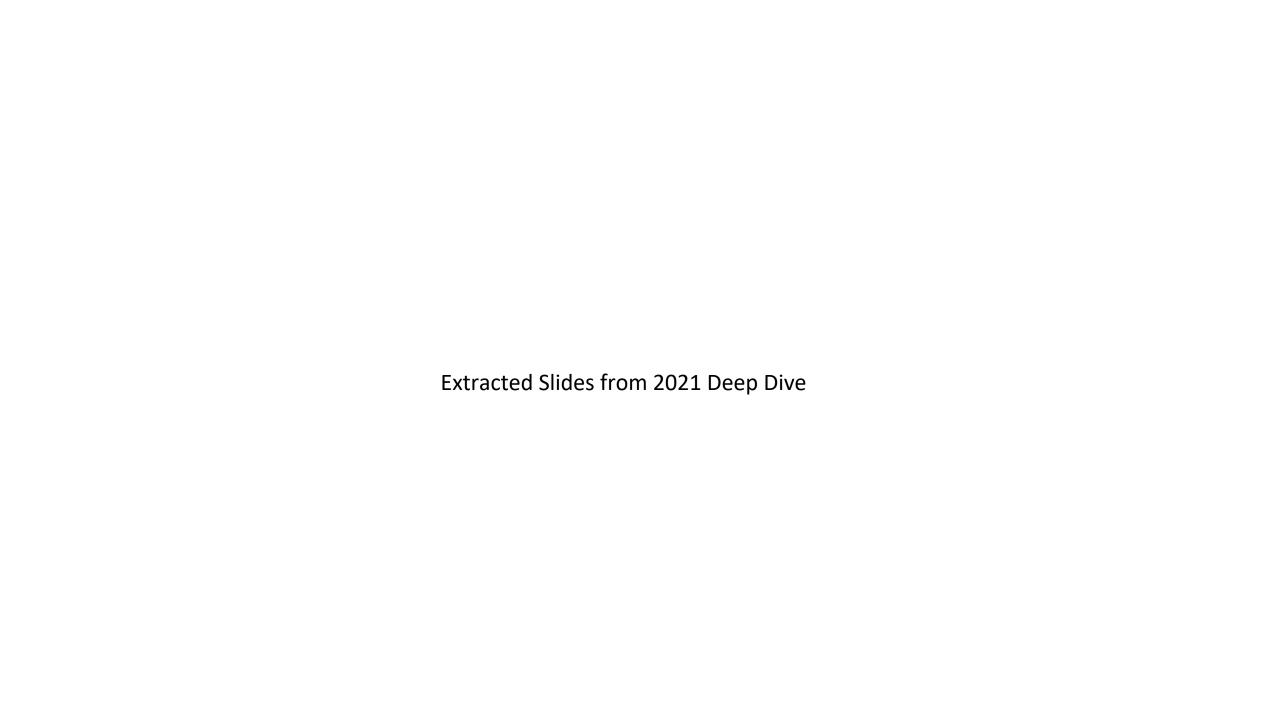
Dept/School	No of PGR's
1st Yr CDT	23
CEAS	174
CS	241
EEE	230
MACE	297
SoE	965
Chemistry	347
EES	178
Materials	445
Maths	120
P&A	268
SoNS	1358
Faculty	1655
D = 11 / C =	DEE AI
Dept/School.	REF Acad.
CEAS	50
CEAS CS	50 58
CEAS CS EEE	50 58 64
CEAS CS EEE MACE	50 58 64 91
CEAS CS EEE MACE SoE	50 58 64 91 263
CEAS CS EEE MACE SoE Chemistry	50 58 64 91 263 76
CEAS CS EEE MACE SoE Chemistry EES	50 58 64 91 263 76 92
CEAS CS EEE MACE SoE Chemistry EES Materials	50 58 64 91 263 76 92 73
CEAS CS EEE MACE SoE Chemistry EES Materials Maths	50 58 64 91 263 76 92 73
CEAS CS EEE MACE SoE Chemistry EES Materials Maths P&A	50 58 64 91 263 76 92 73 86 106
CEAS CS EEE MACE SoE Chemistry EES Materials Maths	50 58 64 91 263 76 92 73

In NS we need to raise to a ratio of 4.25:1 to equal the best = 1840 PGRs = additional 482

In ENG we need to raise to a ratio of 4.25:1 to equal the best = 1118 PGRs = additional 176

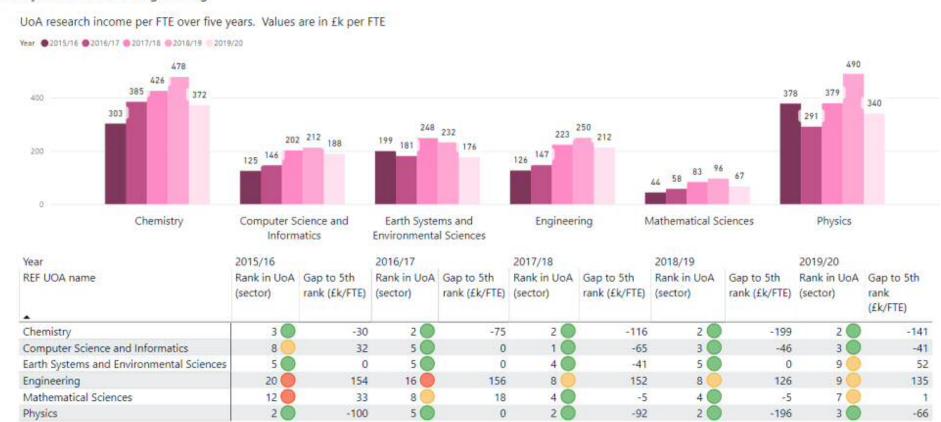
Total - 658 = 30% growth

Growth at rate of 5% per year = extra 110 studentships per year for 6 years

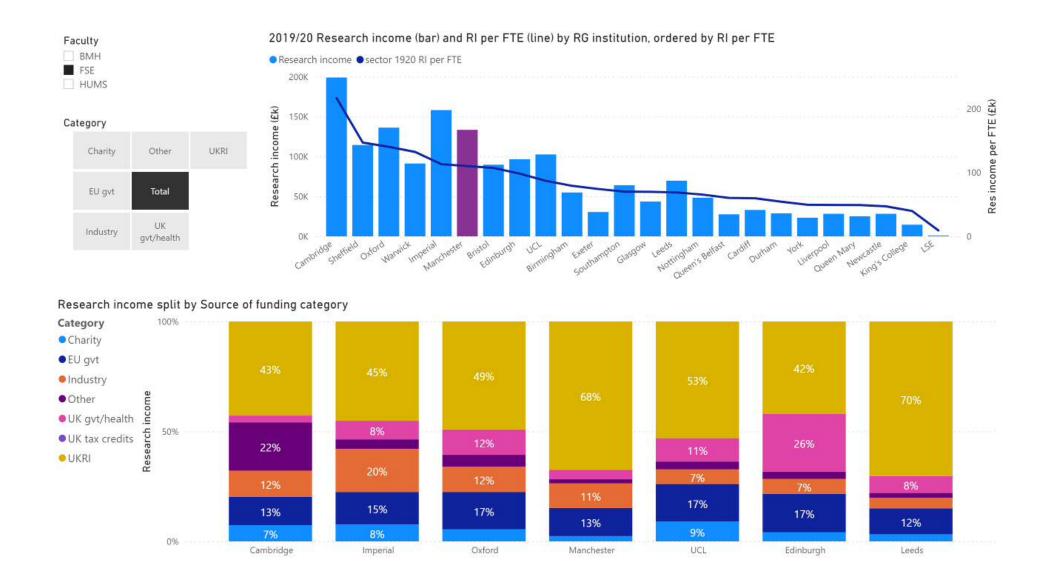


Faculty of Science and Engineering

Faculty of Science and Engineering



Faculty of Science and Engineering source of funding



PGR per FTE- top 5 RG thresholds



Citations in top decile 2016-20 - Benchmarking UoAs



10. EDIA

- **1.** Re a previous DLT action to take forward possible DEES pilot and lead within FSE for tagging our units to SDG goals, CW BvD and VC to meet Jillean Yeow within next week for further discussion.
- **2.** Athena Swan application and Action Plan (largely written by Giles Johnson) continues to be under review by School SAT. A suggested action point specific to DEES is:

Use open days, interviews, advertising materials, pictures on website, etc, to show that: support is provided to UG students for field courses; that field courses are accessible to all; and that female-specific needs, e.g. coping with menstruation during days out in the field, are addressed.

There will be an opportunity within the next couple of weeks for feedback on a final draft.

3. EDIA Team have discussed the possibility of DEES running a departmental lecture series (perhaps 3 talks over the year) on "Sustainable Development Goals and Our Research". Suggested format is a leading departmental researcher would talk to one of the sustainable development goals, discussing issues involved in that goal and how their research can address this. The idea would be to ensure the talk was very general i.e. of interest to all Research Groups as well as support staff and technical staff (and perhaps undergraduate students). This has been discussed by EDIA Team and there are mixed viewpoints (see below). We would like DLT to discuss and decide if this is useful initiative or not, and format.

Possible advantages:

- Make us more aware of research in other research groups
- Promote cross-disciplinarity
- Take the opportunity to get know each other better through social event afterwards (nibbles/drinks? Cake/tea?), including across academic/non-academic roles.
- We could consider inviting people from elsewhere in the university if we thought this would showcase our research relevant to SDGs.

Possible Issues:

- Staff might not engage (too busy)
- Is there really any need/desire for this?
- Might prevent engagement with departmental seminar series
- \$\$\$
- Covid



A couple of people have suggested their willingness to give talks. E.g. Susanne Shultz

Her research on how land in Africa is used by people/animals, impacts on people's livelihoods, emergence of zoonotic disease and conservation



Dave Polya

His research on arsenic contamination of ground water in South and Southeast Asia and how to ensure people's health

11. IT Report

Past:

- Wifi update in Williamson & Simon happened over the summer, and rolling electricity shut offs in the Williamson in September were managed by Emma and Kofi admirably without causing too much interruption to the systems in the building.
- Project students now have access to the CSF thanks to faculty buy-in, allowing a wider range of computational projects.
- Software requests that went in in Spring were actioned just before the start of term. Whilst closer than ideal time-wise, this did mean that Kofi and Emma didn't need to do it all themselves, freeing up their time and also that much of our software is now being rolled out to the MECD clusters.
- Newsletters stopped over the summer and for September as there was not uch happening and then I was away for most of Sept on fieldwork but they will be kicking off again soon.

Ongoing/Future:

- There are some obvious structural issues regarding IT services, and no obvious route to feed them back for example, software requests need to go in six months before a course is taught and identify the teaching cluster, however, the cluster used for teaching is only timetabled the week the course starts. Tickets that I put in on this, and similar issues, are ignored. My plan for the coming month is to try and find out how to feed these structural problems back to someone in IT that can actually address them.
- Similarly, a wide range of AV issues have become apparent as we've started teaching again. I'm keeping track of these, and trying to find out how to improve our experience when teaching by feeding back into the service.
- I'm still exploring the many ways to get workstations for computational work within the University. When this is complete I intend to put together a guide to help others.

RJG 11/11/2021