AGENDUM 6

The University of Manchester

Senate: 25 April 2018

Faculty of Science and Engineering: A Proposal for Change

Person reporting: Professor Martin Schröder, Vice-President and Dean of the Faculty of Science and Engineering

KEY RECOMMENDATIONS

Senate is asked to endorse the recommendations outlined within the following report, noting that the changes will take effect from 1 August 2019 with transition planning starting as soon as the changes are agreed.

Senate is asked to endorse, for recommendation to the Board of Governors, the proposed changes to the School structure in the Faculty of Science and Engineering comprising a reduction from nine Schools to two Schools with effect from 1 August 2019.

Senate is asked to endorse, for recommendation to the Board of Governors, that the two Schools will be named:

- School of Engineering
- School of Natural Sciences

Faculty of Science and Engineering: A Proposal for Change

VISION

"*The Faculty of Science and Engineering (FSE) must have the agility to respond to an increasingly challenging environment, maximising impact in the widest sense and working towards making the biggest difference to society. To do this we will need to make a step-change in the quality of our research, teaching and learning, and professional support, enabling our staff and students to realise their full potential. We will attract the best, to be the best and make the biggest difference*".

KEY RECOMMENDATIONS

Senate is asked to endorse the recommendations outlined within the following report, noting that the changes will take effect from 1 August 2019, with transition planning starting as soon as the changes are formally agreed.

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EXECUTIVE SUMMARY

We set out a proposal for the Faculty of Science and Engineering to re-structure from nine Schools to two in order to increase our agility, prompt a change in culture and enable a step-change in the quality of our Research, Teaching and Learning, Social Responsibility, Equality, Diversity and Inclusion, and Professional Support, enabling our staff and students to realise their full potential and thereby creating a resilient world-leading Faculty. The recommendation is that we do this while retaining the identity of the current School disciplines in 'Departments'. The working titles and compositions for the Schools are:

School of Engineering:
Departments of Chemical Engineering and Analytical Science, Computer Science, Electrical and Electronic Engineering, Mechanical, Aerospace and Civil Engineering.

School of Natural Sciences:
Departments of Chemistry, Earth and Environmental Sciences, Mathematics, Materials, Physics and Astronomy.

The proposal recommends the formation of a Faculty Teaching College and a Faculty Research College which will have key roles in developing initiatives that cut across Department, School and Faculty structures, and which will ensure consistency of approach and proactive sharing of best practice. The Colleges will be strategic in nature and the Vice Deans will be members of the Faculty Leadership Team alongside the two Heads of Schools, and the Vice Dean for Social Responsibility. The proposal further recommends the formation of a Doctoral Academy under the Research College to support an enhanced, single point of focus for PGR students across academic and PSS activity.

BACKGROUND

The prevailing assessment of the FSE Review in summer 2017 was that the focus of the re-structure of the Faculty was to significantly enhance student experience through improvements in teaching and learning and enable a step-change in research performance. The most persuasive driver of change is the need to enable greater flexibility in our response to discipline and technical changes, both in research and teaching; examples being the new opportunities in areas such as cyber security, Industry 4.0, robotics, and the data economy. The University is placed around 120th in national rankings in some teaching and learning league tables, and a significant number of our research disciplines are outside the top 5 in the UK according to the Shanghai ARWU world ranking of universities. This is unacceptable if we are to meet the University's vision, and requires a step-change both culturally and practically in order for the Faculty to reach its full potential, and therefore compete effectively with Cambridge, Imperial College, Oxford, UCL and comparator international institutions.

Through the review process and the following consultation a range of options was considered, including: maintaining the present nine School structure; organically reducing the number of Schools over time through mergers; a step-change to three or four Schools; and a step-change to two Schools. It was recognised that any decision around structural change is very judgement based, and relies upon mapping the structure to the vision, and to the changes desired. After extensive consultation it became clear that a two School model provides the best structure for enabling the Faculty to respond to the challenges of the future and improve quality and performance. One of the attractions of the two School model is the flexibility that it provides in this respect in the future, and that structuring through the Natural Science and Engineering Schools creates a natural and balanced organisation readily understood both internally and externally. It is proposed that the nine Schools currently convert to nine Departments within the two School structure to ensure rapid change to the new structure and limit unnecessary disruption. This also ensures clear and unambiguous identity for the disciplines. The proposal engages the whole Faculty in the change agenda and signals a clear call for change for all staff to share good practice to improve the student experience and academic performance of the Faculty.

THE CASE FOR CHANGE

The case for change across a variety of areas is detailed further later in the paper, but the following are considered to be the challenges we need to meet and which create a compelling case for the proposed changes in structure.

- We have ambition to be in the top 25 universities in the world, and, therefore, we must respond to external challenges in a manner appropriate to a great university, with decisive and positive actions;
- we need to facilitate the whole Faculty to become greater than the sum of its parts, better integrating strengths to compete more effectively with Cambridge, Imperial College, Oxford and UCL for both resource and the best students; in some areas we are already losing out to competitors such as Leeds, Sheffield and Liverpool;
- we must compete more effectively with overseas universities to achieve world-leading status internationally;
- we must be able to respond to an ever-changing research funding landscape, with a clear and unambiguous move to fewer, larger multi- and inter-disciplinary consortium and programme applications;

- we must make our financial position more resilient to future uncertainties driven by changes in HE and make more efficient use of resources;
- we must plan for a future where resources are even more limited or are allocated with more specific conditions or limitations on their use (*e.g.,* Industry Strategy Challenge Fund, Global Grand Challenge Fund, Prosperity Partnership Fund). Brexit makes our international links more important than ever, but we cannot be certain what rules will govern such links;
- we need to have the confidence and agility to respond to ever-increasing regulation, specifically in areas such as data protection, visas for staff and students, research data management, equality and diversity;
- we must be more cohesive to be fairly judged under increasing external assessments, including national exercises such as REF, TEF, KEF, NSS and DLHE (soon to become Graduate Outcomes and LEO), and through national and international league tables.

We therefore need to develop and utilise our most important resource – people – better, to maximise the quality of what we deliver, minimise repetition and unnecessary activities, and work more effectively and efficiently. While our current structure has served us well in many ways, the new external challenges that need to be faced mean it has become much less fit for purpose. The thesis of this document is that the Faculty needs the agility to respond to the increasingly challenging environment, to maximise impact, and make the biggest difference possible to society. It is therefore proposed that the Faculty is more likely to achieve its vision through a re-structure from nine to two Schools, bringing together but retaining the identity of disciplines.

TIMESCALES

It is proposed that any changes agreed will be implemented from 1 August 2019. This timescale allows for further involvement of staff and students in both organisational design and planning implementation. It also benefits from alignment with completion of the Student Lifecycle Project, preventing the need for parallel change programmes for PSS staff in this area of activity.

BACKGROUND

The University Review Group of the Faculty of Science and Engineering (FSE) was commissioned to report to the Vice President and Dean of the Faculty, and published its final report in June 2017. The report recommended that the Faculty restructure from nine to four (or three) Schools. Following this:

- Initial discussions took place at Senate;
- the Dean of FSE undertook a range of internal consultations, addressing four Faculty open meetings in July 2017 and visiting all Schools in Sept-Oct 2017;
- feedback was collected from across the Faculty through a dedicated email site, including discussion, individual and collective responses from School Boards;
- the review was discussed with the Students' Union and at workshops to which all FSE students were invited;
- the Faculty Leadership Team had Away Day meetings to discuss options and potential ways forward.

From the Faculty consultation and representations, a number of views emerged including:

- Staff wanted to know the vision and rationale behind any proposed change;
- there was no strong support for the recommendation of the four or three School structure;
- there was consensus that maintaining discipline identity was essential through and after any change;
- there was overwhelming support that the Faculty needed to improve and embrace change in order to show greater agility in response to ever present external change.

A Faculty Working Group was set up in early Nov 2017 to consider the issue in detail and come up with a Faculty view for discussion at FLT in Jan 2018. The outputs from this Working Group were informed by the various elements of feedback outlined above.

Faculty Working Group Members:

William Sampson - Head of School, School of Materials
Danielle George - Vice Dean (Teaching and Learning)
Ian Rodd - Faculty Head of Finance
Paul Mativenga - Vice Dean (Social Responsibility, Equality & Diversity)
Rachel Brealey - Director of Faculty Operations
Sarah March - Faculty Head of Human Resources
Simon Rowland - Head of School, School of Electrical & Electronic Engineering
Steve Yeates - Vice Dean (Research)

Following an update report from the Working Group, the FLT meeting on 8th Jan 2018 agreed that the Faculty would progress with discussions focussing on the formation of a two School structure incorporating a Faculty Teaching College and Faculty Research College. This direction of travel has been subsequently discussed and presented at Senate (14th Feb 2018), at Faculty and School Leadership Team Meetings and at a further Faculty Leadership Team Away Day (5th March 2018). A further very positive meeting with Student Representatives took place on 17th April.

THE CASE FOR CHANGE

As outlined above, there are various internal and external drivers for change, which create an overarching need for the Faculty to rethink its structure and operating model. The proposal supports the means to deliver a step-change in the quality of academic activities in order to respond to these challenges, as follows.

Teaching and Learning: We have some excellent teaching and learning across the Faculty, but we also have areas where the student experience is poor. In the 14 years since merger, we have failed to share best practice. This failure has spanned a period with four different Vice President and Deans (including one interim), several Associate and Vice Deans for Teaching and Learning and many Heads of School. Therefore, it is a reasonable conclusion that the problem is not with personnel but with structure and the culture that it encourages. By bringing current Schools into larger structures we can share best practice more easily, and stop poor practice more quickly. We will create a Teaching College whose main remit is to facilitate the sharing of best practice and to set a more coherent framework to raise the quality of both the student experience and the delivery of teaching and learning across the Faculty in a more coherent and robust manner. We must grapple with problems across assessment and feedback, degree attainment, the student experience, and the huge variations in staff and student load and teaching delivery.

Research: Although there is significant working across School boundaries already, larger Schools will allow a more rapid response and earlier planning and strategic alignment (for example, *via* appointments and investments) to bid for external research funds that require interdisciplinary teams. It will certainly make it easier to devise matching funds that are increasingly needed for large external bids. Larger Schools will also allow better and more efficient use of key research equipment, and will allow us to develop new facilities supported by research and technical staff freed from the need to maintain copies of routine equipment. This is being achieved increasingly within the nine School model, but it will be far easier with two Schools.

We need to embed greater ambition by changing existing individualistic cultures and mindsets. We need to create greater efficiency and better balance in workloads to enable academics to concentrate on their strengths and be more successful, as too many academics in the Faculty currently have very low research income – often due to an imbalance in workload. Placing staff in much larger units will provide more scope for adjusting workloads, and give greater visibility of how many outstanding academics (both teachers and researchers) we have. This will challenge our existing cultures and will lead to greater ambition. Specifically, recruitment of interdisciplinary teams of researchers is currently highly challenging. Recruitment of new, and retaining our own world-leading researchers will be easier given larger budgets and resources within larger Schools.

Recruitment of international students will be increasingly important given financial challenges. We have existing pockets of excellent practice, but units where relatively little has been achieved. By bringing current Schools together we will share best practice as well as, and perhaps more importantly, create larger units that are better able to support the efforts needed in Internationalisation. For example, instead of nine Schools sending staff to China or India we would only need to send staff from two Schools. We could produce better web and advertising material by standardising approaches and removing duplication, learning from what works well already. As regulation of visas increases and changes, we will be better placed to respond and to ensure we remain compliant.

Recruitment of sufficient high-quality home students in an increasingly competitive market where demographic, funding and qualification changes are likely to impact on student numbers is also a risk. The greater alignment of marketing, recruitment and conversion best practice, along with flexibility to vire numbers across School structures without significant financial impact on individual discipline areas is considered to be a key benefit of the proposed changes.

Financial Resilience is challenged by the external financial climate and is most difficult for small units that are over-reliant on recruiting to narrow degree programmes. In addition, we have some activities that generate a great deal of income, for example huge PGT courses, but where the burden is placed on current Schools unequally. By bringing current Schools into two new larger Schools, we reduce the dangers associated with fluctuations in UG recruitment, and we share the burdens and the benefits of generating additional income, which is delivered currently through PGT courses. As the two Schools will control much larger budgets, the ability to spend strategically will increase, for example allowing investment in better teaching infrastructure, investing in areas of research strength and/or with high potential growth or supporting more key external research bids for funding.

Based upon 16/17 figures, the total financial contribution from the School of Engineering would have been £58.5m (5471 total student population) and from the School of Natural Sciences £59.1m (5831 total student population). Thus, the proposed structure creates two comparable Schools by size and financial resilience.

Administrative Burden: At present we have nine Schools, each of which replicates the structure of Faculty with a deal of precision. Each current School has Directors of Teaching and Learning; Research; Social Responsibility; Internationalisation; Graduate Education; Business Engagement; Admissions and Recruitment. Each School is then likely to have a committee structure to support each or combinations of these Directors. This is a huge duplication of effort and a vast amount of time could be created simply by merging roles. This could be done with nine Schools, but our contention is that this would be far more difficult than restructuring to two Schools. The two School structure implies the need in certain areas for only two Directors of each type within the Faculty; we may find that in the very large Schools we create, deputies will be needed in some roles, but this will not be needed across all activities. More importantly, we will be able to create simpler and more standard practices for most processes. At present, we have nine different ways of performing many simple tasks, and these often vary between divisions or groups within the same School.

Compliance Issues: It is clear that we are working in an ever more tightly regulated world. Regulations on visas, data protection, health and safety, diversity monitoring, and recruitment are already burdensome. This burden will increase. More importantly, the penalties, both reputational and financial, from failing to comply are increasing at the same rate as the increase in regulation. Meeting these compliance issues across nine Schools is inefficient and repetitive and often risks single points of failure. Meeting the compliance issues even in a two School model will be challenging, but far more affordable, robust and manageable.

RESEARCH INSTITUTES

Within the new two School structure, our many Institutes will act as a glue to ensure and promote inter- and multi-disciplinary thinking, thus mitigating against potential separation of disciplines across the two Schools. To ensure that our staff are better supported and have clear

performance and financial accountability, Institutes will continue to be managed at Faculty level but with reporting lines to UMRI, and line management of staff remaining in a given academic's parent School. Directors will report at Faculty level. We will explore with UMRI opportunities for better managing and maximising the value added by our institutes.

The following Institutes are led from or have significant involvement with FSE:

1. Graphene Engineering Innovation Centre (GEIC)
2. UoM@Harwell
3. Manchester Environmental Research Institute (MERI)
4. Manchester Institute of Biotechnology (MIB)
5. National Graphene Institute (NGI)
6. Photon Science Institute (PSI)
7. Rosalind Franklin Institute (RFI)
8. Henry Royce Institute (HRI) for Advanced Materials
9. The Data Science Institute – (partner to The Alan Turing Institute)
10. Thomas Ashton Institute of Risk and Regulatory Research (TAIR3)
11. Dalton Nuclear Institute
12. Pankhurst Centre for Research in Health, Technology and Innovation
13. University of Manchester Aerospace Research Institute (UMARI)
14. Cockcroft Institute
15. BP International Centre for Advanced Materials

SCHOOL BOARDS AND ACADEMIC ENGAGEMENT

School Boards ensure that academic staff have a voice in the governance of their School within the University. The School Board is required by and operates under University Statute and Ordinance. The School Boards for the School of Engineering and for School of Natural Sciences will be supported by sub-committees at Department level which will engage all staff and enable manageable cohort meetings and discipline focussed academic engagement. This engagement will be supported by harmonised terms of reference and operation of governance structures.

BENEFITS ENABLED BY THE TWO SCHOOL STRUCTURE

Adoption of best practice in teaching and learning: There is some excellent teaching practice across the Faculty. However, there is a huge variation in student experience. For example, contact hours, assessment loads and expected working hours on units vary enormously. A stronger approach to development and consistent application of Teaching and Learning policy is required. This will be enabled by both the changes in the Faculty Teaching and Learning leadership organisation, including a more centralised course and unit review process, and more robust, simplified and standardised processes implemented by Schools.

Development of new and different taught courses: The Schools are presently primarily focused on delivery of existing courses and do not all have sufficient headroom to develop new offerings or radically change what we offer or how courses are delivered. It is considered that a two School model will afford more scope for academics to review and develop courses. Often PGT and DL are delivered within the same framework as UG, and we need to balance better the PGT loading to provide academics the time required for research.

Eliminating single points of failure in professional support services: At present, Professional Support Services (PSS) lacks consistency in terms of standardisation of roles and structures across Schools. Depending on the size and financial sustainability of the School, they can be increasingly subject to single points of failure. Processes are standardised in some areas, but this can be undermined by resourcing or by a wide range of 'local preferences', and many Schools struggle to resource and deliver added value services within their current structures. Fewer, larger schools would enable more standardised and better resourced support services, which can deliver cover for both essential and added value services without additional cost or loss of 'local' expertise. Additionally, there is an ability to balance resources, improve agility and invest more strategically in an ever-changing environment.

Agility: Two Schools will make it easier to standardise operations, co-deliver professional support services, and respond quickly and comprehensively to opportunities and challenges, allowing the opportunity to think across our range of capability and potential. The balance of postgraduate taught teaching and project supervision can also be better coordinated and supported. Financially, the two School model will deliver far greater headroom for strategic investment and agility to respond to investment needs.

Working across disciplines: It is acknowledged that inter-disciplinary activity is a strength of the Faculty. However, larger Schools will present further opportunities for improved working across existing groups and for greater sharing of best practice. The two Schools will help launch a more coherent and co-ordinated image of engineering and natural sciences at Manchester, and enable clarity for external engagement, which is presently lacking.

Financial sustainability: The proposed structure will create more financial flexibility and strategic opportunity within the two Schools than is possible within the current much smaller schools, where a lack of financial resilience means longer term plans can be disrupted by a bad year, in reduced student recruitment, for example. The larger financial resource available to two Schools will allow the creation of more financial headroom and the ability to make more significant and better targeted investments in staff and resources, supporting more rapid growth in existing or in new areas that are taking on national and international importance. Decisions about investment in capital equipment similarly become more strategic; key research themes are more easily coordinated within larger units and so there can be more and faster investment. The financial resilience afforded by multi-discipline schools allows the confidence to invest more and in the longer term. Research Institutes will be more transparent and accountable, and their relationships with Schools more transparent.

Ability to respond to increasing external benchmarking: The University and Faculty has to respond to increasing benchmarking externally, for example in metrics such as the National Student Survey (NSS), Teaching Excellence Framework (TEF), The Research Excellence Framework (REF), Academic Ranking of World Universities (ARWU), QS World University Rankings, Destinations of Leavers in Higher Education (DLHE) survey, Athena SWAN and in the future Knowledge Exchange Framework (KEF). These benchmarks increasingly affect our brand and therefore our ability to recruit the best students and staff and, ultimately, influence our financial sustainability and the quality of what we can deliver. This requires that we transition to best practice in all areas. Under nine schools we have been slow to consistently improve, to pick up best practice and to standardise and thus realise a step-change in the quality of what we do. The pooling of existing schools will provide the visibility, oversight and opportunity for reflection, a wider pool of

ideas and the leadership and resources to drive and accelerate change across disciplines and reduce differential performance to enable a step-change improvement in performance and quality.

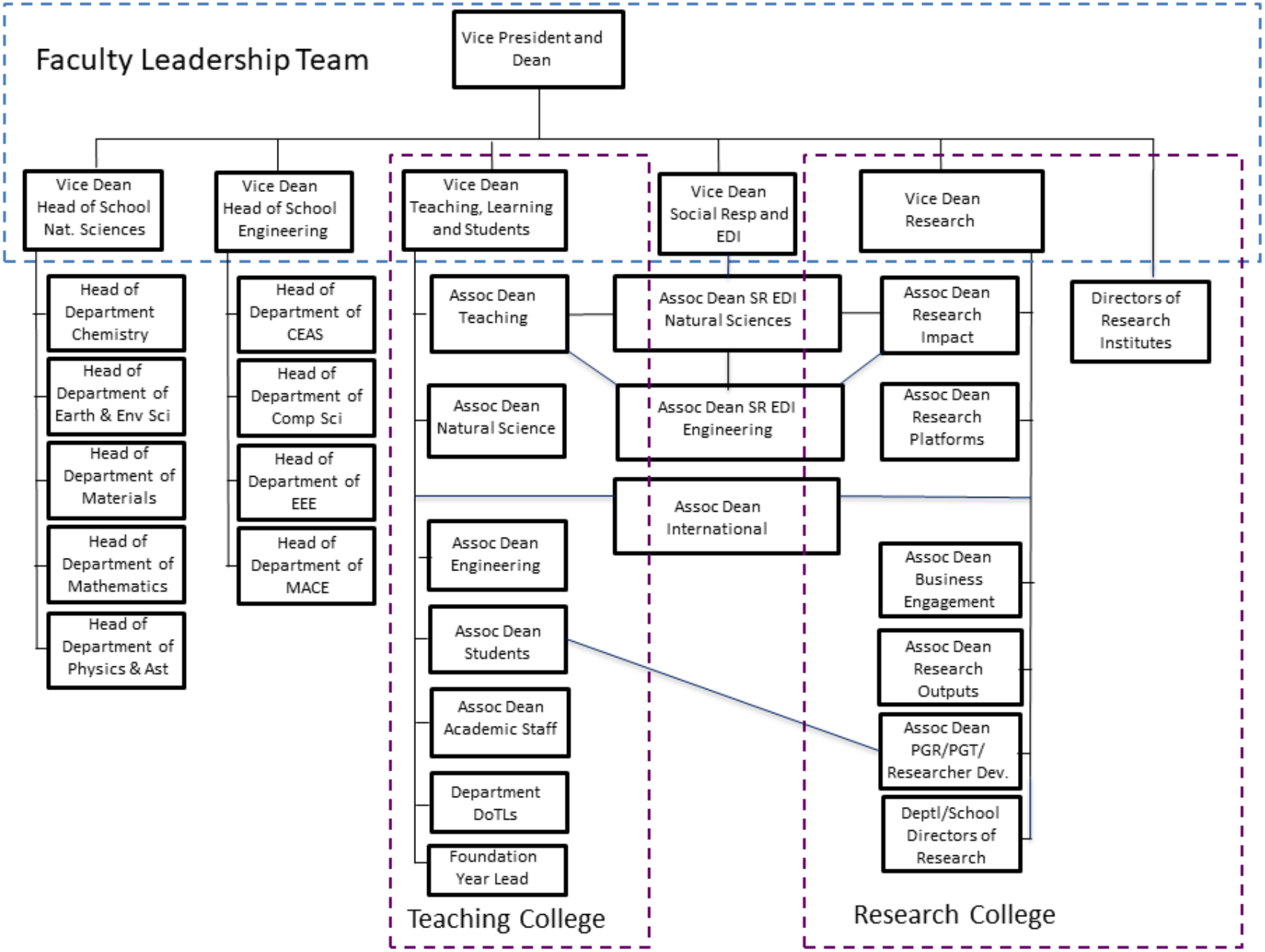
FINANCE

The proposed two School structure does not lead to any academic staff losses, but will require two new Heads of School, in addition to the 9 Heads of Department. The PSS structure is not yet defined and will follow the academic structure and requirements. However, it is considered that the two School structure offers the opportunity to develop more robust structures with critical mass of staff in key process areas. In turn, synergies created through alignment of processes and activities should allow opportunities to refocus colleagues onto more value-added activity. There will also be scope for greater efficiency in the delivery of technical support with fewer Schools, and it is hoped that this will provide improved opportunities for career development and progression through further transparency of structures and roles. Where possible, PSS changes will be aligned to University wide project change processes (SLP, RLP). Overall financial resilience will be created by having larger entities and with more capacity and headroom for strategic thinking.

APPENDIX I

STRUCTURE AND GOVERNANCE OF THE FACULTY OF SCIENCE AND ENGINEERING

The proposed structure is designed with clear ownership of business processes so that these are not reproduced at each of Department, School and Faculty levels. In this way, the new layer of management will streamline processes and decisions rather than encumber the organisation with additional bureaucracy. The organogram shows five Vice Deans reporting to the Vice President and Dean. Two of these are Heads of Schools, responsible for delivery of Research, Teaching and Learning and Social Responsibility within the two Schools. Vice Deans for Teaching, Learning and Students, for Research and for Social Responsibility are responsible for setting policy and supporting targeted outcomes. The PSS structure will be developed and organised to support this structure and its intentions. The academic membership of FLT will consist of the Vice President and Dean, and five Vice Deans with appropriate PSS colleagues.


Faculty Leadership Team
Vice President and Dean
Vice Dean Head of School Nat. Sciences
Vice Dean Head of School Engineering
Vice Dean Teaching, Learning and Students
Vice Dean Social Resp and EDI
Vice Dean Research
Head of Department Chemistry
Head of Department of Earth & Env Sci
Head of Department of Materials
Head of Department of Mathematics
Head of Department of Physics & Ast
Head of Department of CEAS
Head of Department of Comp Sci
Head of Department of EEE
Head of Department of MACE
Assoc Dean Teaching
Assoc Dean Natural Science
Assoc Dean Engineering
Assoc Dean Students
Assoc Dean Academic Staff
Department DoTLs
Foundation Year Lead
Assoc Dean SR EDI Natural Sciences
Assoc Dean SR EDI Engineering
Assoc Dean International
Assoc Dean Research Impact
Assoc Dean Research Platforms
Assoc Dean Business Engagement
Assoc Dean Research Outputs
Assoc Dean PGR/PGT/ Researcher Dev.
Deptl/School Directors of Research
Directors of Research Institutes
Teaching College
Research College

APPENDIX II

TEACHING COLLEGE

Vision

A world-class teaching and learning environment is one in which staff and students are able to reach their full academic and personal potential. The staff in such an environment are highly capable teachers and innovators who actively and continuously challenge the status quo thinking to do different and do better, striving to ensure that the University of Manchester is recognised by both metrics and reputation as one of the top institutions in the world for teaching and learning in Science and Engineering. Students graduating from such an environment are highly sought after by business and research leaders for their knowledge, skills, flexibility and dynamism. Fostering this ethos requires leadership and structure, which we will implement through a Faculty Teaching College.

Mission

The Faculty Teaching College will be led by experts in the scholarship of teaching and learning and with a track record of leadership and innovation. The Teaching College will:

- provide a focus and framework for delivering excellence in the learning environment and the student experience, rooted in personalised learning, scholarship and professional practice;
- provide a platform to develop effective and relevant curricula to address the changing needs of the workplace, informed by stakeholders from business, industry, policy and research, and will be reflective of the student voice;
- operate a comprehensive outcomes-based educational framework throughout the Faculty, embodying high quality teaching, effective learning processes, fair and consistent assessment and valid student outcomes;
- provide an overarching structure to monitor teaching quality, to assess the effectiveness of programmes of study, and to ensure standardised and simplified Teaching and Learning processes and activities for greater efficiency;
- empower individuals and groups to challenge existing practices and to innovate in teaching and learning through sharing best practice and pedagogic research;
- act as a focus for staff training and development in teaching and learning methodology, including new academics and GTA training programmes and peer review of teaching;
- deliver visible recognition and reward for teaching excellence to inculcate parity of esteem between teaching and research.

NOTE: Outcomes-based education (OBE) is a *learner-centric* framework that uses intended learning outcomes (ILOs) to align teaching, learning, assessment and feedback. The University of Manchester is committed to the use of OBE (as are most UK HE institutions) through the QAA Subject Benchmark Statements and FHEQ, PBSR accreditation requirements and the Washington Accord (for engineering degrees).

What is it for?

The Teaching College will provide a framework to simplify and standardise the structure of teaching, learning and assessment across FSE in pursuit of higher teaching quality and improved student experience.

This will involve:

- delivering an explicit outcomes-based educational alignment in all programmes across FSE, creating explicit constructive alignment of delivery of Teaching and Learning, including teaching intensity, assessment and feedback;

- operating a rolling programme of curriculum review for all programmes, informed by stakeholders and embedding employability and professional practice skills;
- applying a standardised process for approving, validating and recording all programmes and course units in FSE (including data structures aligned with SLP);
- maintaining standards in programmes through annual and periodic review and student experience action plans (SEAPs);
- monitoring student attendance, engagement and progress via an academic dashboard;
- collating and disseminating best practice in Teaching and Learning amongst schools and departments, and drawing in best practice from external HE institutions;
- organising effective staff training and support to develop teaching excellence;
- focussing on delivering excellence in the learning environment, including Teaching and Learning infrastructure and digital learning;
- evaluating outcomes and metrics (including student feedback) from all programmes in a unified framework and using these to drive improvements.

Who will be involved?

All academic staff who teach in FSE will be formally members of the Teaching College. There will be two principal structures:

- a strategic structure (led by the VD for TL&S supported by ADs, DoTLs and key strategic staff);
- an operational structure (DoTLs plus school and departmental programme teams for each degree course).

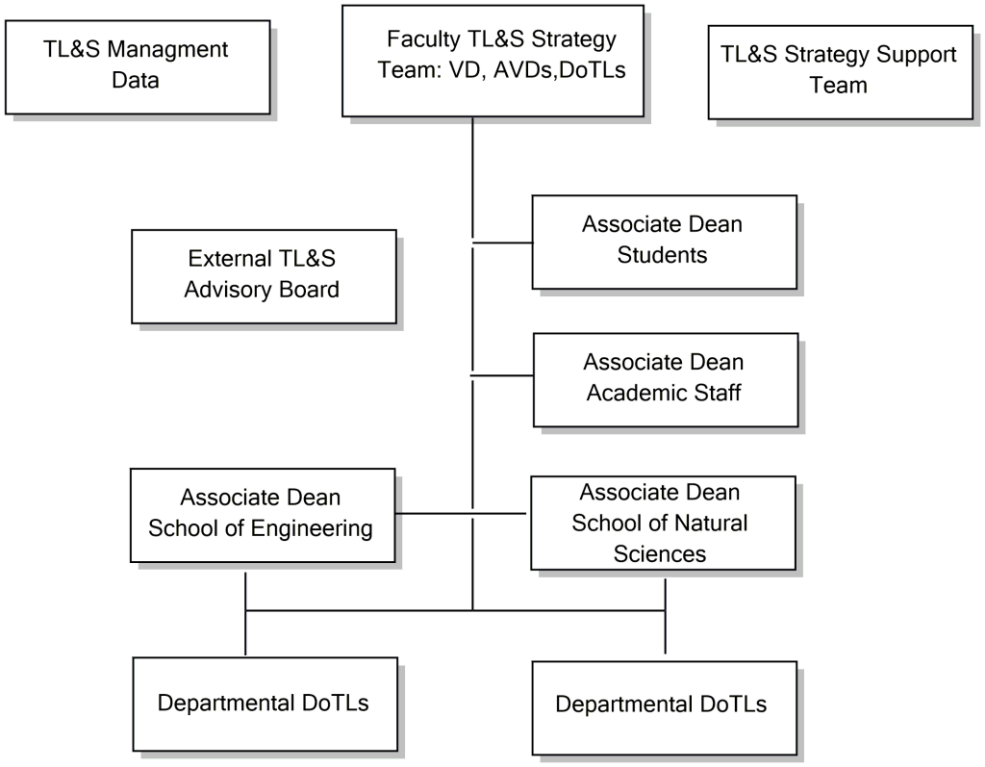
How will it be implemented?

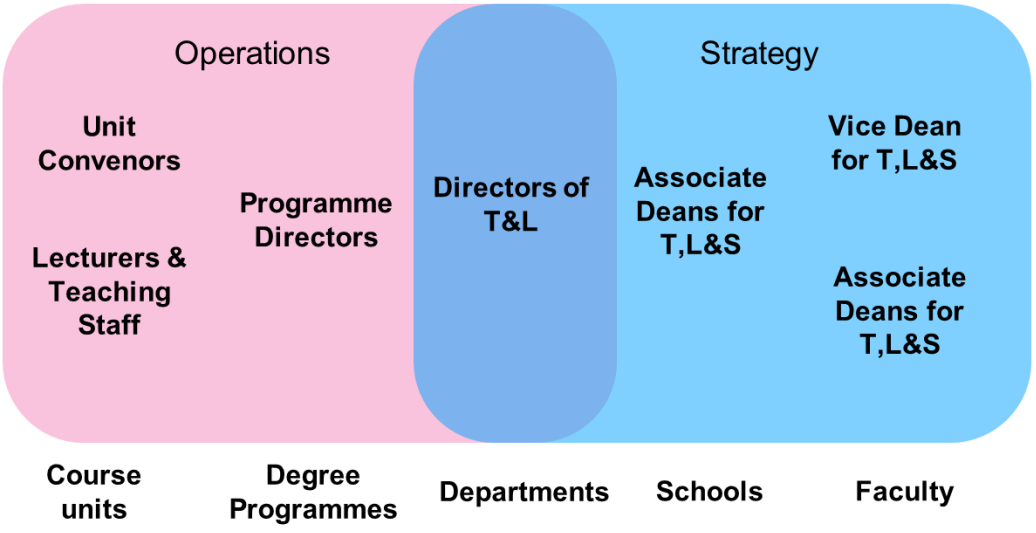
The overall direction of Teaching and Learning in FSE will be formulated by the strategic team, in consultation with various stakeholders (University senior leadership, employers from business, industry, policy and research, the academic research community, student bodies, professional body standards requirements). Ownership of the academic components of the programmes will lie with the individual Schools and Departments. Teaching College strategy team members will work with the programme teams to review all aspects of a given programme (detailed curriculum, teaching and assessment intensity, annual outputs and metrics). Members of the operational team will deliver and manage the programmes within the academic schools/departments. Student outcomes, performance metrics and student feedback from each of the degree programmes will be compiled and reviewed by the strategic team. These will be used to inform the annual and periodic review process and to drive improvements in teaching quality and student experience. The strategic team will review and evaluate external/synoptic indicators of teaching quality, student experience and learning environment annually, and use this evaluation to drive improvements across the faculty.

What will it deliver?

- high-quality academic degree programmes with clearly defined graduate attributes and contemporary curricula;
- a capability to adapt systematically and quickly to change in the HE landscape and to keep FSE programmes aligned with the needs of stakeholders;
- an effective process for the management and maintenance of standards across all FSE programmes;
- drivers for change in the quality of the learning environment, which plays a key role in the student experience and which is a significant contributor to TEF.

Organisational Diagrams





Each School will have an Associate Dean who will work with the relevant DoTLs, Head of School and Heads of Department as part of the management structure for teaching staff within the schools (i.e. line- and performance management of individual academic staff). The ADs will also hold other key strategic portfolio briefs as necessary, including TEF, student experience, staff development, data analysis and teaching and learning methodology.

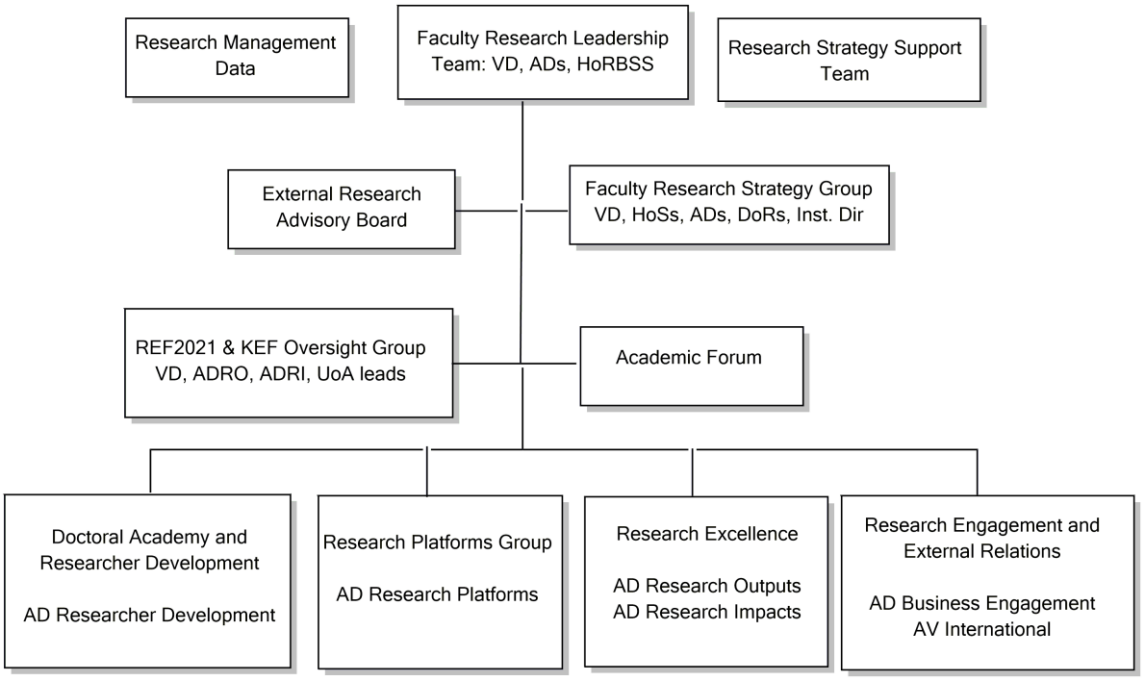
APPENDIX III

RESEARCH COLLEGE

Vision

- Retaining, attracting and supporting the best people to deliver the highest quality research and impact;
- provide world-leading research infrastructure and capability;
- to build on strengths in Departments and Institutes to facilitate inter- and multi- disciplinary working;
- to be able to react in a more agile way to both the changing external funding landscape and changing technological and social grand challenges;
- all underpinned by provision of high quality PSS support.

FSE Research College Organogram



ROLES AND RESPONSIBILITIES

Associate Dean Researcher Development*:* Responsible for researcher development across the full academic career from PGR, PDRAs, Research Fellows and new Academics. Provide strategic management and oversight of regulatory and policy requirements for all aspects of the Postgraduate Research Student (PGR) lifecycle within the Faculty, and for ensuring relevant ongoing development opportunities are available for all staff engaged in research.

Associate Dean Research Platforms*:* Responsible for co-ordinating the Faculty research equipment strategy and implementation through the Faculty Equipment Group. Chair the Faculty Research Information Technology Group, which will have oversight of the HPC, HIC and Research IT needs of the Faculty.

Associate Dean Outputs: To identify best practice in research activity leading to excellent research publications and subsequent eligibility for REF submission, and to develop a framework for embedding this across the Faculty. To develop strategies to recognise and publicise world-

leading publications emanating from the Faculty, and to ensure that Faculty outputs are compliant with external stakeholder requirements (open access and data management). To identify key performance indicators and relevant benchmarks against which to measure progress. Will represent faculty on University PURE and open research working groups (ORWG), Research Lifecycle Project, Research IT project, and REF2021 Project Board.

Associate Dean Impact: To be responsible for promoting and coordinating impact activity within the Faculty, both internally and externally. Lead the development and implementation of the Faculty's Impact Strategy. To ensure that appropriate strategies and policies are in place to enable the Faculty to monitor and record impact in preparation for forthcoming REF exercises and internal RRE exercises aligned with University expectations. Will represent Faculty at University level, University REF2021 Project Board and policy@manchester.

Associate Dean Business Engagement: To be responsible for promoting and coordinating business and innovation across the Faculty, with specific role to maximise grant income from industry and to develop and manage strategic collaborations with industry, nationally and internationally.

Associate Dean Internationalisation: To be responsible for promoting and coordinating research partnerships and collaborations with overseas Universities and research organisations. Lead the development and implementation of the Faculty's internationalisation strategy with the support of School Directors of Internationalisation. To ensure that appropriate strategies and policies are in place to manage, build, develop international research relationships to enable the Faculty meet University's internationalisation targets.

Directors of Research (DoR): They will provide direction and cohesion in the development of the discipline and School research strategy, ensuring synergy, prioritisation and sustainability. Working with the Vice Dean and Associate Deans for Research as a member of the Faculty Research Strategy Committee (FRSC) to help inform and shape Faculty and University research direction and strategy. They will also take a School overview, and promote and deliver with senior colleagues a coordinated research strategy including oversight of equipment needs, provision of key research management data, and pro-actively seek to arrange nomination of School members, including graduate students, for prizes and awards (Leverhulme, Royal Society, RAEng, professional bodies, UoM Distinguished Achievement Award, UoM Researcher of the Year Award). Be responsible for Department REF2021 preparations. Coordinate all aspects of planning and development of internal RRE. Some DoRs may be theme-based working across boundaries (*e.g.,* industry 4.0, data, robotics)

Directors of Internationalisation (DoI): DoIs will sit at the School level and will provide direction and cohesion in the development of the both Departmental and School internationalisation operational plan, ensuring synergy, prioritisation and sustainability. Working with the AD as a member of the Faculty Internationalisation Committee (FIC) to help inform and shape Faculty and University internationalisation direction and strategy. They will promote and deliver with senior colleagues a coordinated strategy including international collaborations in research, partnership, student exchange and student recruitment.

OPERATIONAL MANAGEMENT

Doctoral Academy and Researcher Development

Doctoral Academy: The Doctoral Academy (DA) will provide management and oversight of regulatory and policy requirements for all aspects of the Postgraduate Research Students (PGR) lifecycle within

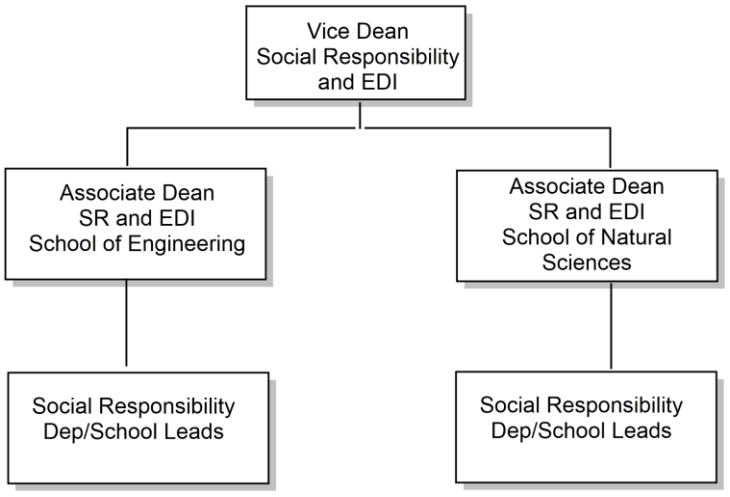
the Faculty. It will provide transparent and standardised processes for all PGR across the Faculty, in line with University policy, and will be a clear point of contact for procedural matters. The DA will be chaired by the AD Researcher Development and will retain close links with the Teaching College for student focussed matters such as taught elements of some PhD programmes and student wellbeing. It will also work closely with the FRSG, Business Engagement and Internationalisation on increasing PGR funding across the Faculty, and with the Schools and the student body to improve submission and completion rates and ensure the student outputs and impacts that contribute to our Research Excellence. PGR also represent the first step on the ladder of researcher development and the Doctoral Academy will be closely linked to wider Researcher Development and ongoing academic support for research.

Researcher Development: Researcher Development (RD) covers a continuum across the academic career from PGR, PDRAs, Research Fellows, New Academics and beyond. While the Research College will contribute to NAP, overall delivery of the NAP will rest with the Teaching College. Researcher Development will be closely associated with the DA through a broad portfolio of training activities (professional and transferrable skills) offered to PGR, GTA training (link to Teaching College), and a Researcher Development programme for early career research staff. Researcher Development will also manage Fellowship workshops and Peer Review, in conjunction with FRSG and the Academic Forum.

APPENDIX IV

SOCIAL RESPONSIBILITY, EQUALITY, DIVERSITY and INCLUSION

The University is sector-leading in Social Responsibility. A key challenge going forward, as more universities embrace the Social Responsibility agenda, is for Manchester to be distinctive in Social Responsibility. We must avoid complacency and ensure we continue to champion Social Responsibility as a unique feature of the University. We believe coordinating and rebranding our activities under two Schools will provide greater clarity to external partners and enable us to offer a joined-up picture of our work. The two School model also offers greater efficiency and planning from an internal perspective, ensuring we reduce duplication and deliver enhanced, more focused activities. Larger schools create a bigger pool of ideas, to co-create a distinctive SR agenda and a unique opportunity to scale up our engagement. The Faculty's contributions to Social Responsibility are excellent but we tend to do very many smaller projects rather than single large projects. It is appropriate to keep Athena Swan at the Department level in the short term (since Departments are largely unchanged from current Schools in the first instance), but then move accreditation to Schools at the next convenient renewal period after synchronising practice and raising performance across each School. This will create a significant administrative efficiency.



Notes:

a. FSE Social Responsibility Committee and FSE Equality, Diversity and Inclusion Committees will continue to run.
b. The SR ADs will also have strategic leadership of EDI in their Schools and will hold other key strategic portfolio briefs as necessary, for example, Engaging our Communities or Environmental Sustainability.
c. Research with Impact will be linked to the Research College through the Impact and Business Engagement ADs.
d. Socially Responsible Graduates will be linked to the Teaching College through the AD for Teaching.

University of Manchester
Risk Register
Faculty of Science & Engineering restructure from 9 Schools to 2 Schools
March 2018

Risk	Impact		Likelihood		Net Risk	Rank	Risk Indicators	Current Management Processes and Mitigating Activities	Risk Owner
1. The restructure process itself will direct staff attention away from core business Whilst recognising that staff engagement is important in the implementation of the new structure, management focus will become diverted from delivering the core business in the Faculty.	Serious	3	Possible	2	6		• Reduction in research applications. • Insufficient improvements in teaching and learning environment and student experience.	• Close monitoring of core metrics e.g. applications for research awards, research income and contribution targets. • Close of monitoring of Student Experience Action Plans produced at School level. • Two School model will focus change where it is most required and will help to reduce the potential collateral damage.	VD for Research VD for T,L&S Heads of School
2. Additional management layer inhibits activity By creating a new layer of leadership (Schools), there is a risk that communication pathways become longer, decision making slows down and communication becomes less effective.	Major	4	Possible	2	8		• Decisions take longer and processes take longer to sign off. • Staff identify in staff surveys as feeling less connected to decision-making. • An increased level of bureaucracy become apparent.	• Faculty Leadership team will be strengthened by two Heads of School roles which will be more strategic than currently. • Heads of Department will have significant and vital roles in operational oversight. • Ensure effective line management, engagement and communication within Departments. • Standardise and simplify business processes across the Faculty. • Cut out duplication and repetition of processes and practices. • Delegation of authority.	Dean Heads of School

Risk	Impact		Likelihood		Net Risk	Rank	Risk Indicators	Current Management Processes and Mitigating Activities	Risk Owner
3. Increase in organisational cost of delivery and management The proposal may increase the cost of running the Faculty.	Moderate	2	Possible	2	4		• Budgets reflect an increased cost for management function. • Staff workloads around management increase, as measured by TRAC and workload models in Departments.	• It is recognised that in short term the proposed structure may increase the running costs of the Faculty. • Close monitoring of costs in order to ensure budget targets will continue to be met. • Opportunities for cost savings will be identified and taken where appropriate, as currently.	Dean DoFO Heads of School
4. Loss of subject identify and status Loss of current School identify, profile, cohesion and student experience.	Major	4	Rare	1	4		• Poor NSS outcomes • Student recruitment challenges	• It is recognised that maintaining discipline identity is essential and current disciplines will remain visible as Departments. • We will monitor, e.g. through student rep meetings in subject areas, student perceptions and experience from the start and throughout. • The departments will be the primary unit for external media presence (Web, social media).	Heads of School Heads of Dept

Risk	Impact		Likelihood		Net Risk	Rank	Risk Indicators	Current Management Processes and Mitigating Activities	Risk Owner
5. Athena Swan Charter status The change in Faculty structure impacts upon the Athena Swan Charter status that current Schools have.	Major	4	Possible	2	8		• Areas with Bronze award that did not get the award renewed. • No new departments gaining Silver award. • Less clear governance around EDI principles and practices.	• Early communication with the Equality Challenge Unit as well as learning from the process that FBMH. • Principles of EDI will remain embedded in the day-to-day operations of each Department; the principles will be driven by consistent leadership from two Schools. • Departments will continue work to maintain and improve their accreditation status. • Department accountability and budget delegation will be defined to allow them to drive change. • After a term of levelling performance across Schools to share best practice we can then reduce the Athena Swan submissions to two by moving them to School level. • Schools and Departments will continue to work on equality, diversity and inclusion so that we create the best place to work for.	VD for SR Heads of School
6. Difficulty in recruiting or retaining academic staff Difficulty in recruiting or retaining academic staff through change.	Major	4	Possible	2	8		• Key staff leave the University • Applications for early career lectureships and fellowships fall.	• Close management of the restructure will be undertaken by FLT to ensure engagement with all staff and to minimise negative impact on individuals. • Retain identity and reputation of each subject area. • Faculty remains committed to attract and retain the very best staff. • Staff experience will be monitored closely through and beyond the implementation phase, via School Boards and staff surveys.	Dean Heads of School

Risk	Impact		Likelihood		Net Risk	Rank	Risk Indicators	Current Management Processes and Mitigating Activities	Risk Owner
7. Difficulty in recruiting and retaining PSS staff Difficulty in retaining and recruiting PSS staff and maintaining business as usual activity through significant change	Major	4	Possible	2	8		• Key PSS staff begin to seek employment opportunities elsewhere due to change and feeling of uncertainty. • Restructure will be perceived to reduce opportunities for career progression • The University of Manchester will be viewed as less attractive institution by potential high quality candidates.	• Training and Development programmes for PSS staff, e.g. ILP and Leading Change Development programmes, help staff to adapt to change and realise opportunities that it provides. • Communication of benefits offered to staff, including Training and Development, on the University website helps potential candidates to create a positive image of the Faculty.	DoFO HoSA
8. Loss of local influence inputs into decisions A risk that Departments feel that decision making is removed from their own unit and leadership, and that strategy is developed in isolation from Departments. Individual academics and PSS staff will be more distanced and have less opportunities to communicate with policy makers.	Major	4	Possible	2	8		• Strategies become disconnected from the delivery and operational realities • Feeling of isolation and lack of opportunity to influence decisions.	• Develop meaningful two-way communication between leadership at different levels across the Faculty. • School Boards will discuss matters raised at Department staff meetings. • The Establishment of Teaching and Research Colleges will enhance staff engagement.	Dean Heads of School
9. New Departments remain as silos The transition from Schools to Departments with the same academic staff and subject delivery discourages engagement across the new Schools and between Departments.	Major	4	Possible	2	8		• Feeling of increased bureaucracy. • Decline in new research initiatives. • Teaching programmes developed between subject areas reduce.	• Strong FLT agenda to retain full coherency. • Teaching and Research Colleges will oversee and reinforce cross-Faculty processes. • Leadership across the Faculty will comprise representation from Schools. • School boards will increase the interaction of staff between Departments in each School.	Dean VD for Research VD for TL&S VD for SR

Risk	Impact		Likelihood		Net Risk	Rank	Risk Indicators	Current Management Processes and Mitigating Activities	Risk Owner
10. Risk of becoming two Faculties through time The risk that the size of each school will effectively see two smaller "Faculties" developing.	Minor	1	Rare	1	1		• Distinctive School processes and procedures will begin to develop over time. • Operational governances differ between the two Schools.	• Both Schools will be part of the Faculty and Heads of School will be part of the FLT. • Policies, processes and budgets for the Faculty will be owned and overseen by FLT. • Research Institutes will strengthen interdisciplinary research across the Faculty.	Dean Heads of School DoRI
11. Low staff engagement in new structure Risk that staff do not engage in the implementation of the two School structure.	Major	4	Possible	2	8		• Resistance to change and low or no engagement by staff in new structure.	• Consultation to gain full buy-in from Tier 4 leaders in the Departments. • Full involvement of leaders in developing the operations within each School. • Increased training e.g. Inspiring Leaders Programme and Change Management programmes.	Dean DoFO Heads of School HoD
12. Risk that Teaching College does not improve the Faculty performance in Teaching and Learning Risk that teaching and learning staff do not engage with the development of the Teaching College. Teaching and learning practices and processes will remaining stagnant, leading to declining student experience and engagement.	Major	4	Possible	2	8		• DoTLs do not engage with Teaching College. • Low or poor visibility of Teaching College to staff. • NSS scores and TEF awards do not improve.	• Continue on-going engagement with DoTLs, Vice Deans and Assistant Vice Deans. • Staff consultation on the proposed development of Teaching College. • Strong visible presence of Teaching College to both staff and students through marketing and communication. • Effective communication of the vision of Teaching College to all stakeholders, including objectives and its different functions. • Produce an implementation plan and follow it up.	VD for TL&S

Risk	Impact		Likelihood		Net Risk	Rank	Risk Indicators	Current Management Processes and Mitigating Activities	Risk Owner
13. Two School structure does not take place Risk that the proposed structure does not happen and the Faculty reverts to its current structure.	Major	4	Possible	2	8		• Continued lack of inconsistent policies and practices • Less agility • Much less flexibility for strategic investment through budgets.	• There is a clear recognition within the Faculty of the need to respond better to external challenges. • Continue to consult and engage staff in the implementation of the new structure • Development of governances that meet the needs and expectations of staff.	Dean FLT
14. Research Institutes Risk that the management of Institutes is not bound into policy making. Management of them continues to fall between UMRI (UoM) and FSE Schools.	Serious	3	Possible	2	6		• Continued lack of inconsistent policies and practices between different Institutes. • Low level of agility and collaboration.	• Governance and operational delivery of Research Institutes to be discussed with the University with an aim to increase standardisation in the new structure.	VD for Research Dean DoRI
15. The proposal may cause stress and concern which may lead to low morale and increased levels of absence Failure to support staff sufficiently during the period of change and equip them with tools to adapt and manage change effectively, whilst realising opportunities it provides, may lead to decreased levels of motivation, job satisfaction and increase in staff absence	Serious	3	Possible	2	6		• Uncertainty of how new structure will affect roles and responsibilities	• Equip managers with skills to manage change and support staff during change • Employee wellbeing activities are carried out as an ongoing practice • Effective and honest communication with staff • Tier 4 Development Programme 'Inspiring Leaders' • Make UoM a great place to work: target 'best employer' awards.	Dean DoFO Heads of School