



Senate

Paper Title	Research Strategy
Outcome requested	Senate is asked to consider the draft Research Strategy.
Points for Senate members to note and further information	The strategy will be launched in 2014 as part of the new Strategic Plan. The draft strategy has taken into consideration input from staff consultation events, senior leadership group review and consideration at Faculty and QML research advisory groups and research development and consultation groups.
Questions for Senate to consider	Senate is invited to discuss the draft strategy and put forward any further comments or suggestions.
Regulatory/statutory reference points and links to College strategy	The Research Strategy will be part of the new Strategic Plan.
Strategy and risk	As above.
Reporting/consideration route for the paper	n/a
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Draft Research Strategy 2015-20: February 2014

Foreword

Queen Mary's character has been built from the commitment to the progressive and inclusive values of education and research embodied in its predecessors – the People's Palace (1887), Westfield College (1882), St Bartholomew's Hospital Medical College (1822) and England's first medical school at the London Hospital (1785).

These values underpin our approach to research today – our mission depends on the freedom of our staff and students to pursue and share knowledge within the context of promoting an open, enquiring, educated and tolerant society, recognizing that this fosters the progress of research and benefits society as a whole. We are dedicated to hiring the best and the brightest, and giving them the support and resources that they need. Finally, we are committed to developing the careers of our researchers and to promoting equality and diversity at all levels.

These are enduring principles and aims. Yet we must also recognise an ever-changing external research environment, which is currently characterised by decreasing research support in many areas, a concentration of funding for larger consortia and collaborations, a new focus on the impact of research, and rapid growth of national and international competitors. Our ambitions within this context are straightforward – we must ensure that our researchers have the support that they need to pursue new opportunities within this environment.

This new research strategy will be launched in 2014 as part of the new Queen Mary strategy. It incorporates the enduring themes of our current approach, but with a renewed assessment of the changing external environment and the new challenges and opportunities that it offers, as well as taking account of the significant advances made at Queen Mary in the past few years.

Bill Spence

Vice Principal (Research)

1. Environment

Queen Mary recognizes that the nature of its research environment is the most essential element in fostering the best research, and we will work to maintain the most inspiring and supportive such environment.

1. Queen Mary will continue to be a university based on a broad range of disciplines, ensuring a healthy balance of research and teaching, and investing to strengthen established and successful areas as well as in emerging areas of excellence, including targeted research in thematic areas where opportunities arise.
2. Queen Mary recognises the importance of research autonomy, flexibility and independence.
3. Queen Mary will foster its research centres and institutes, ensuring that they have the necessary support for their activities, and encouraging and supporting their innovations.
4. A healthy diversity of sources of research funding underpins the long-term sustainability of research. Queen Mary will monitor and direct resources appropriately to foster [such diversity](#).
5. Queen Mary will coordinate annual research reviews with Schools and Institutes, enabling them to monitor and evaluate their research strategies.
6. Queen Mary recognises the essential contributions to the research environment made by postgraduate and postdoctoral researchers and will support measures to ensure that appropriate numbers of such researchers are hosted here and given the support needed for success in their degrees and careers.
7. Queen Mary will ensure that investments as a whole promote the overall financial sustainability of the institution, whilst recognizing the value of research reputation and the disparity between direct income from research as compared with teaching.

2. Partnerships

Queen Mary recognises that growth in the breadth and depth of its research will enable broader partnerships and will work towards this.

1. Queen Mary will invest in new national and international research partnerships where these show promise, and encourage researchers to build new research contacts and collaborations that further their work and open up new opportunities.

2. Queen Mary will continue to work closely with Barts Health Trust, and will build on our membership of UCLP Academic Health Sciences systems, as well as our Clinical Academic Groups, in order to develop and deliver research that meets NHS priorities.
3. Queen Mary will work with other universities and organisations to build successful block grant and doctoral training partnerships in order to further develop our postgraduate programmes.
4. Queen Mary will build long-term relationships with research organisations, government, business, charities and other agencies in order to underpin direct, joint or leveraged funding for research and infrastructure.

3. Opportunities

Queen Mary recognises the variety of research opportunities in terms of their origin, their disciplinary reach and the levels of investment and engagement required and will seek to take advantage of these.

1. Queen Mary will invest in a major expansion of Life Sciences over the period of this Strategy, exploring the opportunities for a Life Sciences Institute incorporating a significant number of new staff, and working towards further investment with external partners.
2. Queen Mary will encourage interdisciplinary research initiatives and flexible research networks, and support the establishment of new research institutes where there is significant growth potential.
3. Queen Mary will actively recruit outstanding new researchers and research teams, and support their research ambitions.
4. Queen Mary recognizes the creativity and innovation that can arise from researcher initiatives and will facilitate these.
5. Queen Mary will take advantage of grant opportunities in order to increase its ranking in terms of research income for each of the major UK Research Councils, other UK-based funding bodies and from the European Union.

4. Infrastructure

Provision and renewal of the best research infrastructure is critical to our support for research.

1. Queen Mary will ensure the continuing provision of high-quality work and social space for all researchers.
2. Queen Mary will ensure that continuing and appropriate investment into infrastructure is made so that research facilities of all types that support our work are fully used, properly financed, managed and maintained, and compliant with the best health and safety standards. We will actively develop partnership arrangements with other institutions in order to further facilities sharing.
3. Queen Mary will further develop our IT infrastructure to support research, including secure data storage, a data repository, research information and reporting systems, grant application and management systems, and our requirements for high performance and high throughput computing.

5. Policy and Practice

Our commitment to fairness, openness and ethical behavior in research will be reflected in policy and practice.

1. Queen Mary will continue to promote equality and diversity in all facets of research, maintaining and developing relevant policy, monitoring and implementation. This will include active involvement with relevant externally-recognised awards and partnerships, such as the Athena Swan awards, Stonewall Diversity champions and BME mentoring partnerships.
2. Queen Mary affirms its commitment to the general principle of Open Access to the outputs of research, and data underlying these, subject to the necessary constraints of any funder, legal and ethical requirements, and it will formulate and promote appropriate policies and ensure the means for implementation.
3. Queen Mary will promote to staff its policies relating to the ethics and integrity of research and ensure that appropriate training and monitoring procedures continue to ensure that the highest standards are maintained.
4. We will maintain our practices in order to ensure the continuing award of the European HR Badge of Excellence in Research.

6. Support for Researchers

We will ensure that our researchers' contributions are fully recognised, and that professional research support is available to them.

1. Queen Mary affirms that its success in research relies upon the commitment and enthusiasm of its researchers, and will strive to ensure that appropriate time, facilities and resources are available to them.
2. Queen Mary will work towards ensuring that all aspects of the contributions of researchers to Queen Mary are accounted for in terms of their work, and that an appropriate balance of research and non-research work is realised.
3. Queen Mary will support researchers in the preparation of grant applications by implementing an internal peer-review process [to provide guidance and advice on](#) all major grant [applications](#).
4. Queen Mary will continue to invest in professional support for research grant applications, adapting this to changing needs such as the growth in larger collaborative grants, inter-disciplinary awards, doctoral training awards and opportunities to diversify income through growth in EU and other non-UKRC funding sources.

7. Researcher Development

The career development of our researchers and the advancement of their horizons is key to ensuring the realisation of their full potential.

1. Queen Mary will deliver research leadership development and training as part of its researcher development programme.
2. Queen Mary will continue to encourage its researchers to develop their careers and to increase significantly our influence on high-level policy through representation on key decision-making and grant-awarding bodies, and [engagement with](#) decision makers in every part of public life.
3. We will maintain a programme of researcher development for all new research staff that is responsive to their needs.
4. Queen Mary will continue to advance the Concordat to Support the Development of Researchers by agreeing mentoring and other mechanisms to ensure that research careers at Queen Mary are appropriately fostered.
5. We will continue to support our Doctoral College, providing the necessary resources to enable it to review the progress of our aims concerning PhD and

postdoctoral research, oversee the development of a cohort of PhD and postdoctoral researchers and provide developmental and social events that enhance their environment.

6. Queen Mary will apply a programme of regular assessments in order to support the progression and completion of PhD students.
7. We will deliver an appropriate postgraduate research skills training programme for all our doctoral candidates, including support for employability.
8. We will provide high-quality supervision training for new academic staff and offer regular refresher sessions for existing staff.

8. Promotion

It is critical to our future growth and the success of our research that we fully promote our research and its impact to expert and non-expert audiences.

1. Queen Mary will support the promotion of our research to peers as a critical element of the further strengthening of our reputation, and will foster the hosting of international and national meetings, workshops and conferences on campus, as well as via Visiting Exceptional Researcher Award programmes that will enable the strengthening and growth of research collaborations and networks.
2. Queen Mary affirms the importance of the promotion of our research and its impact through the media, websites and open access arrangements.
3. Queen Mary will maintain a high level of [quality](#) public engagement with our research and its impact, [supported by](#) the Centre for Public Engagement,
4. Queen Mary will work towards increased capacity for, and public and patient participation in, clinical research and medical trials.
5. Queen Mary will encourage the involvement of its researchers as experts in discussions of public import.
6. Queen Mary will support research across all Faculties that will have a positive impact on the local community and its cultural, social, and economic life.

9. Innovation and Impact

Queen Mary seeks to foster innovations arising from our research and their impact for the benefit of society, and will promote policies and practices that advance this.

1. Queen Mary will adopt and disseminate policies on Intellectual Property and related issues that recognise and incentivise the work of researchers in engaging with a diverse range of industries and developing innovations.
2. Queen Mary will support the innovation and impact work of researchers, making allowance for the time and other resource commitments made, and recognising these contributions through our appraisal and promotions processes and staff bonus scheme.
3. Queen Mary will increase its work to embed innovation and impact activities within the organization, through the appointment of and support for dedicated staff resource.
4. Queen Mary Innovation will increase its visibility and engagement with QM researchers and work towards sustainability via increased income streams.
5. Queen Mary will continue to increase and realize its potential for innovation through growth in disclosures, licensing and spin-outs.
6. Queen Mary will build longer-term innovation and impact relationships with significant business and other partners most relevant to its developmental strategy, using these where applicable to access direct, joint or leveraged funding for innovation.

10. Indicators of Progress

We will judge if we have created the exceptional research environment that we aim for using measurable Indicators of Progress¹, which are given below.

1. Queen Mary will be ranked in the top 10 in the UK and top 75 in the world by 2020 in reputable league tables that take full account of research.
2. Queen Mary will be in the top ten (top 15 for EPSRC, NERC) funded universities for each of the major UK Research Councils by 2020.
3. Research grant income per academic will be in the top ten in the UK by 2020.
4. Diversification of research income so that more than half arises from outside the UK public purse by 2020, [in particular through an increase in European Union funding](#)
5. Research grant success rates for all major UK funding bodies will exceed 30%, in relative numbers of awards as well as amounts, by 2020.
6. The numbers of independently funded Research Fellows per academic will be in the top ten in the UK by 2020.
7. The numbers of Postdoctoral researchers plus Research Assistants per academic will be in the top ten in the UK by 2020.
8. PhD student intake and total numbers per academic will be in the top ten in the UK by 2020.
9. PhD submission rates within 4 years (or 5 years for 4 year funded studentships, and pro-rata for part-time studentships) will exceed 90% of those progressing beyond first year, by 2020.
10. Research income from industry will double by 2020.
11. We will attain the institutional Athena SWAN Silver award by 2016 and work towards Gold for 2020.
12. The numbers of Queen Mary spin-outs, disclosures and licences per academic will be in the top ten in the UK by 2020.
13. Queen Mary Innovation will become financially sustainable by 2020.

¹ These Indicators of Progress (IoPs) apply to Queen Mary as a whole; constituent parts of the institution are expected to contribute appropriately to these aims in the round, with expectations and ambitions set to take account of their current standings and opportunities.

Epilogue

The aims above encompass those that are natural for any research-intensive university with significant ambitions and a commitment to the traditional values of higher education. Their particular resonance at Queen Mary derives from the progressive, egalitarian and inclusive ideals of our founder institutions in the nineteenth century and earlier. Today this is reflected in the collegiality of our working environment, the commitment and enthusiasm of our staff for our continuing rapid progress, and our engagement both with fundamental research and with its applications to the benefit of society.

Implementation notes (internal)

Preamble:

The Indicators of Progress (section 10 of the Research Strategy) should not to be interpreted as rigidly prescribing fixed five-year plans for each School/Institute, regardless of current position and the external environment in its differing impacts. Rather, it is expected that the QML-wide aims will filter down and be re-interpreted accordingly, through levels of Professional Services, and Faculty, School/Institute, and further into sub-School/Institute structures (eg research centres) as appropriate. The aggregations of aims and their achievements at each level are expected to combine, under the aegis of those with the appropriate levels of responsibility, in order to achieve the QML-wide goals. The process for achieving this would take place in time for input to the annual PAR meetings, and discussion around this might well be appropriate at the annual research and innovation review meeting.

Data sources:

IoP 1 may use the THE and Jiao Tong league tables.

IoP 2 relies on RCUK data that is regularly available.

IoPs 3,6,7,8: Comparable data for other institutions is available from HESA/HEIDI by institution and UoA or cost/JACS code which can be mapped onto Faculties and Schools/Institutes.

IoPs 4, 9 and 10 will use internal data from JRMO, RDO and Finance.

IoP 13 will use internal data and a new model for QMI income.

IoP 11 is an external award.

IoP 12 will use HEBCI data.

Implementation:

Feedback from Schools/Institutes sought guidance on how to assess appropriate contributions to the institutional goals. This is very much dependent on the particular discipline and the specific situation of an individual School/Institute. There are however some general guidance points – for example, to learn from other Schools/Institutes at QML that are successful, and learn from other Departments/Schools/Institutes in other institutions that are doing better. In terms of the former, the widespread sharing of data on research around QML should be a priority – eg which areas are doing well with PGR recruitment and how they are achieving this.

An individual School or Institute might well already have achieved some Indicator of Progress, either with respect to internal data where relevant, or in terms of comparison with their peers within other institutions; this might naturally affect the balance of their concentration on various aims as well as their overall strategy – increasing focus on diversifying research income rather than on PhD intake, for example, if indicated.

Professional services, both within Directorates and Schools/Institutes, will also play a vital role in the provision and interpretation of the data, and in supporting and developing the implementation of specific measures.

Specific measures:

There are specific measures that may address particular IoPs. Some suggestions follow, but it will be mainly Schools and Institutes that will be able to form a view on what initiatives are most likely to succeed. Cross-institutional initiatives and structures would be expected to contribute to a variety of the IoPs.

IoP 1: this can only be as a side-effect of the other achievements,

IoPs 2, 3: develop better intelligence about success rates, better peer review processes, significantly better preparation for large grant bids, developing more research partnerships with other institutions,

IoP 4: greater engagement with EU unit and new EU Steering Group; exploration of all opportunities that arise outside RCUK,

IoP 5: better peer review processes, increased use of research teams with co-Investigators on major grants rather than requiring all staff to put in research grants, concentration on fewer, stronger bids rather than more smaller, weaker ones,

IoP 6: active programmes of seeking out Fellowship holders in order to recruit them to QML, and seeking out the best candidates for applications for Fellowships to be held at QML,

IoP 7: appropriate requests for RA support in grant applications,

IoP 8: full use of all sources of PGR funds – CSC, other country programmes, CASE, joint PhDs, etc; better preparation for CDT bids including longer-term planning of future partnerships,

IoP 9: Adherence to existing policies and guidance on PhD progression stages, with attention paid to quality of intake if needed,

IoP 10: greater engagement with major opportunities involving partnerships with other universities and businesses; clear strategies and implementation plans around Tech City, the creative industries, and the Life Sciences initiative,

IoP 11: Timetabling of relevant applications by Schools/Institutes; implementation of guidance and data provision by appropriate sections of Professional Services,

IoP 12: significantly increased visibility of QMI amongst academics, and promotion of innovation opportunities; increased use of HEIF for innovation opportunities and development in place of supporting some core professional services, implementation of new IP policy and widespread dissemination,

IoP 13: development of five-year business plans for QMI; development and implementation of new IP policies.