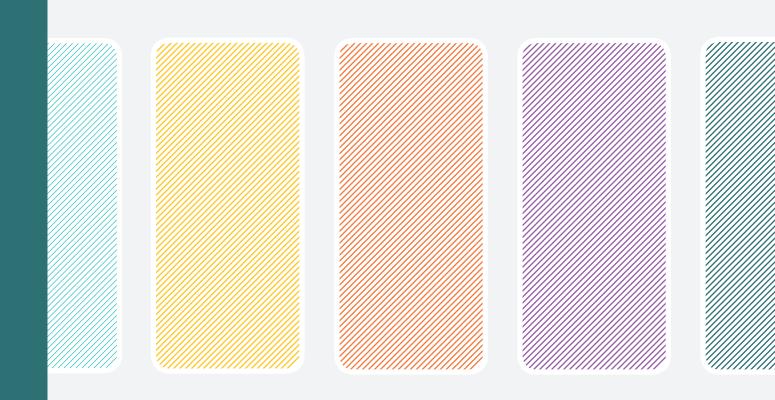
THE CONCORDAT TO SUPPORT RESEARCH INTEGRITY

A PROGRESS REPORT





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EXECUTIVE SUMMARY

- 1. This progress report was commissioned by the eight founding signatories of the Concordat to support research integrity (the concordat). A working group was set up to oversee the development of this report (see Annexe A for membership), which was produced by Universities UK (UUK) on behalf of the group. Input was sought from a range of stakeholders and through a variety of means, including: interviews with institutional representatives (19); qualitative case studies describing implementation activities and challenges (seven); written submissions from institutional representatives (49); and annual narrative statements (19) (see Annexe B for further details). This report and the supporting research primarily focus on the impact and experience of the concordat within universities, as opposed to other signatories of the concordat.
- 2. Dissemination of the concordat has been good, and awareness among key communities such as research managers and administrators (responsible for implementing the concordat at an institutional level) and senior leaders is strong. Between July 2012 and March 2016, more than 42,000 copies of the concordat were downloaded from the UUK website, and 2,500 hard copies were distributed to universities.
- 3. Overall, support for the concordat approach was strong across institutional representatives, research managers and administrators, and funders. Recognition of the autonomy of employers is seen to be important, and the flexibility of the concordat approach is highly valued. The approach continues to be favoured by practitioners over alternatives such as direct regulation.
- 4. There is less evidence of awareness of the concordat among research-active staff; however, it was consistently argued by respondents that this was not viewed as problematic. The concordat was mostly used as a framing policy instrument through which institutional policies and processes were examined, and through which local initiatives were developed and promoted. Direct reference to the concordat in these activities was far from universal.
- 5. All institutional representatives engaging with this report had undertaken some form of gap analysis to evaluate the requirements of the concordat against their own internal processes and existing practices. The concordat has also played an important role in raising the profile and status of support for research integrity within institutions, and awareness of internal policies and processes.
- 6. The link made between the concordat and the funding and assurance processes of major public funders has been important in ensuring that implementation of the concordat has been taken seriously, and that its dissemination has continued to be prioritised. It will be important to retain this link as the research landscape evolves with respect to the creation of UK Research and Innovation (UKRI).

- 7. The cost and administrative burden of implementing the concordat when considered at institutional level have been relatively small. This masks some differential impacts on smaller and less research-intensive institutions; however, the broad consensus is that activities to provide assurance over compliance and to support the principles of the concordat add value and should not be seen as a burden. However, care must be taken to ensure that individuals tasked with leading implementation are appropriately resourced and have access to adequate support and infrastructure.
- 8. While compliance with the concordat was not viewed as overly burdensome or complicated, there were concerns that there has been a lack of communication and clarity from signatories over their expectations around compliance. Most respondents noted that a statement of expectations would be welcomed, although the autonomy of institutions to define approaches to implementation that reflect their specific needs and context should not be undermined.
- 9. A vibrant community of research managers and administrators tasked with implementing the concordat has grown, with peers sharing expertise, good practice and experiences through a range of forums. There has also been excellent support and leadership from the UK Research Integrity Office (UKRIO) and the professional networks provided by the Association of Research Managers and Administrators (ARMA) and the Association for Research Ethics (AfRE).
- 10. These community-led networks have been the bedrock of implementation activities. While more should be done by signatories to help signpost practitioners to relevant professional networks and resources in a coordinated fashion, this process should not undermine these services. Established professional networks should be seen as important partners in establishing a more coherent approach to sector-wide communications and support for implementation.
- 11. One area for improvement identified in this report is in the provision of public information on action to promote and embed the principles set out in the concordat. This is not due to a lack of activity, as this report demonstrates; however, there is a need for more to be done to improve accountability. Only 35 annual narrative statements were identified, and half of institutional websites lacked easy-to-find information on research integrity activities and the concordat.
- 12. The founding signatories need to take a more proactive approach to engagement with institutions and those tasked with implementing the provisions of the concordat. Overall, there has been excellent progress and there is a vibrant community of research professionals actively working to implement both the word and the spirit of the concordat. This willingness should be built on by the provision of better guidance, more regular and coordinated communications and high-level coordination of the support that is available to institutions.

NEXT STEPS FOR THE CONCORDAT TO SUPPORT RESEARCH INTEGRITY

To build on the progress that has been made in embedding the commitments of the concordat, the working group makes the following recommendations.

- 1. The main features of the concordat should be retained. The concordat approach should not be changed it is seen as an appropriate, proportionate and effective mechanism and there has been considerable investment by research organisations and their staff in ensuring that systems and processes are fit for purpose. The focus should be on consolidating benefits, not changing course.
- 2. Signatories should not seek to dictate how research organisations promote a positive culture of research integrity. This is a matter for autonomous institutions, research professionals and the academic community to agree.
- 3. **Signatories should, collectively, articulate their expectations of compliance.** This report recommends that these expectations should focus on greater transparency and accountability. As a minimum, funders should state that research organisations should have: a dedicated and discoverable webpage on research integrity; a named point of contact for research integrity and misconduct enquiries; and a publicly available annual narrative statement setting out the steps they have taken to promote a positive culture of research integrity.
- 4. **Examples of best practice should be collected.** Examples of different approaches to producing annual narrative statements should be collected, and guidance provided on good practice. The RCUK assurance questions on research integrity might act as a sound guide for the annual narrative statement. In addition, more should be done by signatories to help signpost practitioners to relevant professional networks and resources.
- 5. The momentum that has been created within the research community should be maintained. Signatories should support this by developing the annual forum recommended in the original concordat and by committing to review progress again in three years.
- 6. Research organisations need to continue working hard to ensure that they are open and transparent in respect of research integrity, and compliance with the concordat. In line with recommendation 3 for research organisations, signatories should, as a minimum, have a dedicated and discoverable webpage on research integrity; have a named point of contact for research integrity and misconduct enquiries; and produce a publicly available annual narrative statement setting out the steps they have taken to promote a positive culture of research integrity.
- 7. Setting the right culture for research integrity is primarily a matter for research organisations and the research communities they support. However, consideration should be given to supporting the Declaration on Research Assessment as

one mechanism to help reduce some of the perceived instrumental drivers of research misconduct and questionable research practices.

8. Addressing the issues raised by the concordat has required investment and leadership. Institutional leaders must ensure that those tasked with bringing about a step-change in research integrity continue to be appropriately resourced and empowered.

The working group will meet for a final time in early 2017 to agree the terms of reference for the proposed research integrity forum and to agree an action plan to implement the recommendations of this report.

INTRODUCTION

Science and research matter. They are critical not only for the economic prosperity and life-chances of people here in the UK, but for our ability to tackle the many complex global challenges of the 21st century and, as a recent research review put it, 'to build a more secure and prosperous world' for all¹. And the UK has a truly world-class research base. With 1% of the world's population and only 3% of research funding, it produces almost 16% of the most highly cited research articles.² Nearly three-quarters of all research submitted to the 2014 Research Excellence Framework (REF) was judged to be either world leading or internationally excellent, and the huge range of impact case studies collected as part of the exercise – for the first time – show the real-world impact that this research has.³ It is also true that universities lie at the heart of the UK's world-leading system⁴, with nearly 75% of publicly funded research performed in higher education institutions. The UK punches well above its weight.

However, the potential for research to have a significant real-world impact depends on the confidence that can be placed in the knowledge that is produced. Wherever this confidence is undermined, through poor practice or misconduct, then public trust in – and support for – research can be shaken. It is therefore vital that the people and institutions that perform, support and fund research take their responsibility to ensure that research is conducted to the highest possible standards of integrity seriously.

In 2011, some concerns had been raised that the overall coordination and governance of research integrity issues in UK research were not as effective as they might be.⁵ There was, it was argued, a lack of a coherent and effective policy through which this important issue was managed. More needed to be done to provide assurances to government and to the wider public that UK research worked hard to meet the very highest ethical, legal and professional standards. It is in this context that the major public and charitable funders of research, government and universities set out to articulate a new approach to research integrity. Together, these partners agreed to develop a clear, comprehensive and holistic framework that would help raise the profile of research integrity issues at all levels and across all

www.gov.uk/government/uploads/system/uploads/attachment data/file/263729/bis-13-1297-international-comparative-performance-of-the-UK-research-base-2013.pdf

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¹ DFID (2016) *DFID Research Review October 2016*, available at:

 $[\]underline{www.gov.uk/government/uploads/system/uploads/attachment_data/file/\underline{564075/Research-review4.pdf}$

² BIS (2013) *International comparative performance of the UK research base 2013: a report prepared by Elsevier for the UK's Department of Business, Innovation and Skills*, available at: www.gov.uk/government/uploads/system/uploads/attachment data/file/263729/bis-13-1297-international-

³ See <u>www.ref.ac.uk/</u>

⁴ UUK (2014) *Research and postgraduate research training*, available at: www.universitiesuk.ac.uk/policy-and-analysis/reports/Pages/research-and-postgraduate-research-training.aspx

⁵ For example, House of Commons Science and Technology Committee (2011) *Peer review in scientific publications Eighth Report of Session 2010–12*, available at: www.publications.parliament.uk/pa/cm201012/cmselect/cmsctech/856/856.pdf

disciplines, and would encourage even greater focus on this important issue across the research community. It was from this process that the concordat emerged.⁶

Published in July 2012, the concordat set out five broad commitments that all institutions and organisations in receipt of public funding for research should make. Endorsed by the national higher education funding councils, Research Councils UK, Wellcome Trust and government, the concordat represented the first attempt to provide a single, coherent policy statement on research integrity at the national level. The objective was to work within existing systems and structures, but provide a clear stimulus for concerted action. Through UUK, more than 130 higher education institutions also signed up to the concordat.

Figure 1: The concordat commitments

- 1. We are committed to maintaining the highest standards of rigour and integrity in all aspects of research.
- 2. We are committed to ensuring that research is conducted according to appropriate ethical, legal and professional frameworks, obligations and standards.
- 3. We are committed to supporting a research environment that is underpinned by a culture of integrity and based on good governance, best practice and support for the development of researchers.
- 4. We are committed to using transparent, robust and fair processes to deal with allegations of research misconduct should they arise.
- 5. We are committed to working together to strengthen the integrity of research and to reviewing progress regularly and openly.

The emphasis of the concordat (see Figure 1) was placed on taking steps to foster a research environment that would cultivate and support good practice. Addressing the potential causes of poor practice and creating a culture where mistakes can be openly discussed is the most effective way of preventing misconduct, rather than simply focusing on catching wrongdoers. However, as the concordat makes clear, employers must also have robust and transparent processes in place to investigate allegations of misconduct and – where proven – to take necessary remedial action, including sanctions.

As part of their commitments, the eight founding signatories to the concordat agreed to report on progress towards implementation. This report sets out the first attempt to take stock and to identify both the positive stories and the areas where more work needs to be

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 $^{^6}$ UUK (2012) Concordat to support research integrity, available at: $\underline{\text{www.universitiesuk.ac.uk/policy-and-analysis/reports/Documents/2012/the-concordat-to-support-research-integrity.pdf}$

done. The focus throughout is on universities and the ways in which they have responded to the concordat. Future work may wish to cast the net more widely.

The chapters that follow seek to identify the common themes that emerged from the evidence collected by the working group (see Annexe B), and illustrate how a vibrant and committed community of research professionals has emerged to lead implementation of the concordat, raising the profile of research integrity issues and developing new and innovative approaches to all aspects of research governance. These communities have helped institutions make sound progress, supported by expert bodies that have developed good practice and facilitated the development of new professional networks.

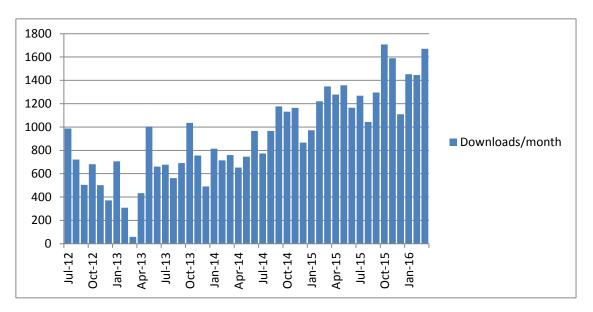
The 'job' of ensuring that the public can have trust in UK research will never be finished, and indeed more does need to be done. For example, there needs to be a more open approach from universities – and universities should, in fact, welcome the opportunity to showcase the excellent work that has been led within institutions. However, as this progress report shows, there are strong foundations to build on.

DISSEMINATION AND AWARENESS OF THE CONCORDAT

UUK signed up to the concordat on behalf of the whole membership in July 2012.7 This recognised the political and reputational importance of the issues raised by government and the wider research community regarding integrity and misconduct. As such, the first challenge was to ensure wide dissemination and broad take-up of the concordat and its commitments.

Since publication, the concordat has consistently been in the top 10 most downloaded documents from the UUK website, with nearly 42,000 downloads in total between July 2012 and March 2016. It is also the most requested printed document, with over 2,500 hard copies ordered by over 50 universities between July 2012 and March 2016. Importantly, data from UUK shows that take-up of the concordat has, in fact, been increasing over time, as shown in Figure 2.

Figure 2: Number of downloads of the concordat per month, July 2012 – March 2016 (excluding UUK internal access)



While this trend represents a rather blunt metric of dissemination and take-up, it does suggest that, even as we approach four years since publication, the concordat is a relevant and much-used resource. This supports a view raised by interviewees and other respondents that implementation was a 'process' rather than an 'event', which required continuous engagement and improvement – there is no 'end point'.

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⁷ A full list of the UUK membership can be found here: www.universitiesuk.ac.uk/about/Pages/member-institutions.aspx

⁸ UUK records

As one respondent argued:

Awareness is gradually increasing, primarily amongst senior management, the governing body, research leaders and those researchers who already had an awareness of research ethics and governance. Further work is needed to enhance awareness across all disciplines, to emphasise its relevance to all researchers and to foster a culture of integrity – this can only be done with ongoing and consistent effort from all those involved in research, including employers, funders, publishers and professional bodies.

However, dissemination does not necessarily mean engagement, or even awareness. As one respondent noted, their institution publicised the concordat 'very widely, but it is difficult to gauge what level of coverage was attained.' Indeed, one feature of the feedback received was the need to consider how 'awareness' and 'engagement' should be understood. Universities – as for any large, complex organisation – consist of a wide range of actors from many professional areas, and institutions themselves are far from homogenous. There is no singular 'research community', only varied 'communities' that have a range of understandings and approaches to research integrity and misconduct. Each may have different levels of engagement, understanding and interest in the issues raised in the concordat. As one respondent noted, 'Communication of new initiatives and expectations is always challenging in a large institution'. Awareness of the concordat was generally seen to be '[m]ixed as yet, but growing'.

In spite of this range of experiences, a consistent message was received. This had two main characteristics. First, respondents reported that awareness and engagement were growing over time, which was to be expected as the concordat first became embedded in research management and leadership roles, within institutional processes and then finally into the culture of an organisation (more of which below, pp.20–21). Awareness of the concordat was seen to be higher 'amongst senior managerial staff, [early career researchers] and new starters' than 'amongst academic and research staff' more generally. However, this was not necessarily viewed as problematic because, second, it was argued that awareness of the concordat was highest among research leaders and managers since it was used to frame and articulate institutional policies and practices, and it was these more tailored and contextually specific approaches that would be disseminated to academic staff.

Hence, while it was argued consistently that 'awareness of, and interest in, research integrity is [sic] high' among the academic community and that the 'requirements of good research practice and the need to demonstrate integrity in research are well embedded', it is likely that 'there may be less familiarity with the "concordat". As such, awareness of the concordat within the academic community should not be equated with awareness of, or engagement with, the principles of good research practice and research integrity. The concordat is a policy intervention that is used by research leaders to frame an institutional response. As one respondent succinctly put it: 'There will undoubtedly be pockets where the concordat itself is not well known, but we are confident that [the] message on research integrity has got through.'

VIEWS ON THE CONCORDAT APPROACH

The concordat was introduced as an approach that recognised the autonomy of research organisations and researchers, and worked with (and indeed 'complemented') existing frameworks. However, recognition of the concordat within the funding terms and conditions of major research funders (see Annexe C) meant that there was a clear shift in its status within higher education institutions and, in particular, among senior leaders. The concordat was now a policy framework for which compliance would need to be demonstrated.

This altered perceptions of the concordat significantly, giving it (as many have referred), 'teeth'. While this shift was not welcomed by all, it was recognised why the link to funding had been made and there was recognition also that this had provided a clear incentive for institutions to focus their efforts on implementation. There was a widely reported impact on the status and profile of the concordat (and research integrity issues) within institutions. This demonstrated that the concordat approach, when considered alongside funding requirements and a light-touch compliance process, could indeed stimulate the level of activity and focus demanded by the importance of the issues it addressed.

As discussed earlier, the concordat was a policy intervention that reflected the particularities of the UK research system and received support from government as an appropriate mechanism. But it was not the only option available, and there have previously been calls for greater and more direct regulation. However, the unanimous response of those engaged with this report has been that the concordat remains the most appropriate assurance mechanism for the UK sector. In contrast to alternatives (notably such as direct regulation), there was consensus across interviewees that the concordat was an 'appropriate and proportionate approach', because it recognised and indeed supported institutional autonomy and diversity while helping to frame the research integrity agenda positively. This put a focus on good practice and on creating a research environment that is conducive to excellent research rather than solely on policing bad practice.

It was noted that in setting out a high-level framework that recognised institutional and disciplinary diversity, the concordat describes a set of values, which are applied locally and differentially according to context, and support a more reflective approach to embedding good research practice that has the potential to bring about longer term cultural change:

Direct regulation can undermine attempts to engage the research community in positive efforts to demonstrate integrity in research by framing the requirements solely within the context of 'compliance'. By developing the Concordat as an alternative to direct regulation, there is greater flexibility to undertake initiatives designed to support integrity in research.

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⁹ UUK (2012) Concordat to support research integrity, p.10

Further, it was argued that direct regulation would:

come at a significant cost to both Government and universities alike. It would also kill the positive culture of good research practice that UK universities already have and are trying to build further upon. I don't believe it would deter those deliberately setting out to defraud or mislead.

Further, the concordat approach that has been developed in the UK has been recognised outside the higher education sector, both nationally and internationally, and other higher education systems have drawn directly on it to help inform their own unique, contextually relevant mechanisms to enhance governance and oversight of research integrity issues (see Figure 3).

Figure 3: International and other sector views on the concordat¹⁰

Reflecting the strengths of the type of approach it embodies, the concordat has been of influence in higher education systems across the world. For example, similar publications by other national research-funding or research-performing organisations directly reference the concordat. This includes the *Danish Code of Conduct for Research Integrity* (2014), developed by the Danish Ministry of Higher Education and Science, and the *National policy statement on Ensuring Research Integrity in Ireland* (2014), which explicitly claims that the concordat 'significantly influenced' its development.

Although the concordat is not directly referenced, it is also worth noting that the EU Council Conclusion on Research Integrity, which was adopted on 1 December 2015, is aligned to the approach taken in the UK on research integrity, and embodied by the concordat.

There are also examples of UK universities applying policies that are directly influenced by the concordat to international collaborators. This includes, for example, at the University of Nottingham's international campuses in China and Malaysia.

Other UK and international (public, private and third-sector) organisations engaged in funding research and in promoting, regulating or providing training in good research practice refer to the concordat as a requirement, or as an educational or guidance resource alongside similar documentation, or via blogs and press releases, including, for example:

- Cancer Research UK (charity sector)
- Science and Conservation Committee of the Royal Botanic Gardens, Kew (charity sector)
- Office of Research Integrity in the USA (government agency)
- MQ: Transforming Mental Health (charity sector)
- Australian Human Research Ethics Consultancy Service (private sector)

As many respondents noted (and, indeed, the concordat itself argued¹¹), there is already a strong legal and regulatory framework around research activities that carry risk of harm to

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¹⁰ For a full list of references, see Annexe D.

¹¹ UUK (2012) Concordat to support research integrity, pp.13-14

research subjects, or where the outcomes of research are sensitive (for example, in medical trials and research involving animals), and advice on dual use research of concern (DURC). The UK research landscape was not a 'regulatory "Wild West" lacking in oversight, regulation or legal obligations¹²; it is important that these checks and balances are acknowledged and that voluntary approaches, underpinned by support from funders, have had considerable impact in the research space.¹³ The present concordat continues this trend.

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¹² Professor Sir Ian Diamond 'The Concordat to support research integrity' Presentation to the Universities UK Members' Meeting, 18 May 2012 (London)

 $^{^{13}}$ For example, Concordat to Support the Career Development of Researchers, available at: $\underline{www.vitae.ac.uk/policy/vitae-concordat-vitae-2011.pdf}$

APPROACHES TO IMPLEMENTATION

Given the finding that the concordat has been most widely disseminated and used by institutional leaders and research managers (see above, p.10), it is unsurprising that the most significant and identifiable impact has been on institutional policies and practices. In many cases, this impact appears to be subtle, with the concordat used as a frame through which organisational approaches can be examined, appraised and re-evaluated. Our evidence found no examples of wholesale changes to approach – which is not unexpected, given the focus on research integrity and misconduct that research organisations already had in place – but a wide range of examples whereby incremental, but collectively significant, developments of policy and practice have been stimulated by the concordat. In effect, the concordat might be seen as a stimulus to asking questions of existing practice; it does not contain 'the answer'.

The informative case studies (Figure 4) provide an overview of the range of actions undertaken by two universities as part of their response to the concordat. In both cases, the text helped to inform change processes by identifying areas that may require additional resources and attention to ensure that they are up to date, rather than articulating any kind of prescribed 'to-do' list.

Figure 4: Institutional approaches to implementing the concordat

Case study A: Large, research-intensive university

The university had started a programme of enhancing its research governance structures, and had appointed a head of research governance in March 2012, supported by two research governance managers (summer 2012) and clerical staff (autumn 2012). With the introduction of the concordat, this provided a stronger building block for the team going forward.

Since publication of the concordat, the university has:

- substantially reworked and rebranded the university's 'Code of Good Conduct and Integrity in Research', which was first developed in 2003. A research integrity brochure is currently in print and will be distributed to all new academic staff, postdoctoral, postgraduate research and postgraduate taught students in the incoming academic year
- revised the 'Regulations Governing an Allegation of Misconduct in Research', and reviewed and approved a revised pool of senior academic staff to be involved in investigations that may arise
- during 2014, revised and updated the 'Regulations on Research Involving Human Participants' and the 'Policy on the Ethical Approval of Research'
- since 2012, developed and populated a comprehensive website, designed to serve as a
 central, publicly available resource that collates policy, regulations and information
 on integrity, governance, ethics, the Human Tissue Act and clinical trial activity

- ensured that all academic and contract research staff inductions clearly articulate the
 concordat's commitments and the university's process to ensure compliance. PhD
 supervisors, students and staff based within schools are informed of the concordat
 through talks delivered at local level
- continued to deliver training programmes on research ethics, the Human Tissue Act
 and the Integrated Research Application System (IRAS) to research staff and
 students. Additionally, a series of audits has been undertaken on randomly selected
 research studies, to ensure compliance with university policies and procedures
- strengthened the university committees responsible for ethics (both human and animal) and Human Tissue Act compliance, and revised the membership, terms of reference and title of the Research Governance and Integrity Committee

Case study B: Modern university with emerging research profile

The university is engaged in a process of continuous improvement in relation to research governance. In the light of the concordat, the university's structure for the governance of research has been reviewed and clarified. A research governance manager, supported by a research governance officer, has been appointed to lead a strategic programme of continuous improvements. Since publication of the concordat, the university has, for example:

- set in place a new, substantially revised 'Code of Good Research Conduct', which fully takes on board the provisions of the concordat
- established a new Human Tissue Sub-Committee to govern human tissue research at the university (replacing a faculty-based Human Tissue Advisory Group)
- established a programme to review key documents, such as the 'Research Ethics
 Operating Procedures', 'Research Misconduct Procedures' and 'Human Tissue
 Operating Procedures'
- begun to set in place a strategic programme of governance training for staff, for
 example risk management courses which for the first time include: governance as
 well as health and safety risk (that will be converted into online training provision in
 2015); governance training for new researchers and PhD students; and a group to
 oversee the development of an online 'Safeguarding with children' module targeted
 specifically at researchers
- appointed a deputy safeguarding officer specifically for research
- conducted an ethics audit of student research
- reorganised the administrative support services for the university's research ethics committees to allow for greater harmonisation of practice across the committees
- set up an advice function for staff in relation to research governance to enable individual researchers and student supervisors to access advice
- produced a governance checklist with embedded initial advice to help researchers
 determine which governance issues relate to their own research, and to find out how
 to access further information and advice

It is worth noting that these examples represent two research organisations with very different contexts; there are many commonalities in the approach taken: the focus on reviewing processes, governance and staff arrangements, and training and development opportunities, is evident in both settings. Indeed, across the range of interviews and submissions received as evidence to this report, a similar focus on ensuring that the policy and governance framework within an institution was comprehensive and up to date was common to all institutions.

Specifically, the concordat was very widely used as a tool for framing a gap analysis or audit of research integrity, misconduct and wider governance processes (more of which below, p.18) and identifying areas where greater focus was required. As noted above, this usually meant updating and refreshing policies, or bringing in a small number of new practices to help embed research integrity issues across the institution. For example, following publication of the concordat, one university identified monitoring of ethical compliance as an area for improvement, and as a consequence, it is:

rolling out an online research ethics system which will help to ensure consistent record keeping and monitoring of project reports and objectives. Other 'checks' and changes have been implemented in existing monitoring and review processes, such as the [postgraduate research (PGR)] annual review processes, 'intention to submit' forms and the pre- and post-viva examiners report forms.

Likewise, training and development were often seen as areas where improvements could be made:

The gap analysis showed that training in good research conduct is currently ad-hoc and not always mandatory. It is proposed that in academic year 2014–15 research integrity should become a mandatory part of training for [postgraduate researchers], early career researchers and new academics. This will be rolled out to all staff in the subsequent year. It is our intention that training in research integrity should be integral to training already provided in research methods, and not seen as an add-on.

Examples such as these were common across the range of submissions received during the development of this report. Implementation of the concordat has most widely – to date – meant an impact on policy, process and practice in research management and administration; the focus has been on ensuring that the framework governing research activity at the institutional level is clear, robust and (importantly) understood across the organisation. As noted above, this is the real focus of the concordat, and where it is best placed to stimulate change.

BENEFITS OF THE CONCORDAT

Given the broad support for the approach introduced by the concordat, it is appropriate to consider what the perceived benefits of the concordat have been for institutions and those tasked with implementation. Several benefits were identified, of which raising the profile of research integrity issues and providing a framework for coordinating institutional responses to issues around research integrity were the dominant themes.

As noted elsewhere (p.10), members of the academic community are cognisant of research integrity issues and the behavioural norms and parameters within their own disciplines. However, this does not necessarily translate into familiarity with the standards and processes in place within their own institution, or the support mechanisms that are available. One important finding of this report is that the concordat provided an excellent foundation for raising the profile of research integrity activities across institutions, and consequently provided an opportunity for re-engaging with the academic community and promoting the policies and services available (see Figure 5 for example).

Figure 5: Benefits of the concordat: the view from one institution

The principle benefits of implementing the concordat have been:

- codifying, formalising and sharing best practice around the conduct of research activity, which should be systemic in a world-leading research organisation
- contributing to a research culture that is transparent and open, as it provides points
 of reference that allow researchers to demonstrate the rigour, integrity and quality of
 their research methods and outputs

Comments such as, 'The concordat has had a significant impact in focusing attention on research integrity issues' were found in almost all interviews and submissions, with respondents noting that it had 'provided a framework of reference for focusing attention on the importance of research conduct'. Allied to the work of research funders and organisations such as UKRIO, it was widely held that the concordat provided an important mechanism for supporting efforts to develop a more comprehensive and coordinated approach to supporting good research practice in institutions. As one respondent reflected:

The Concordat has provided an extremely important focal point for discussions within the University. The need to ensure that we are compliant has been a useful lever to draw together those concerned with research in its varied contexts and give some serious thought to research integrity. If the University had tried to do this without the catalyst of the Concordat, it may have been harder to build momentum, and in that sense, this has been a positive opportunity. The Concordat set a context for the new 'Code of Good Research Conduct', which we now see as a very robust blueprint for research integrity within the University.

An important point to note is that institutions were not 'starting from scratch' (although there were, of course, different levels of maturity across the sector – as discussed below,

pp.22–23), and almost all appear to have had well-developed frameworks in place. Indeed, a significant minority of the contributors to this report suggested that the concordat gave impetus to activities that were already in place – research governance arrangements were seen as needing to be subject to a process of 'continuous improvement' (see Figure 4, Case study B, p.15). However, there was acceptance that this was not always a 'top-level' priority, and that the concordat – and, importantly, the link to funding – provided an imperative for action:

The Concordat has provided the impetus to make changes that may have stayed on the back-burner otherwise. Also, it has been the catalyst for individuals with a remit for research integrity [...] to get together on a regular basis and share best-practice and ideas.

Allied to raising the profile of institutional activities to support research integrity and providing a focus for action, the most common practical step taken by universities was to complete an audit of current institutional policies, processes and practices. This was to identify any gaps or oversights that required remedial action and to provide assurance to institutional leaders that they were compliant with the concordat. This step has been almost universally adopted, and it was viewed by many research professionals as 'the main benefit' of the concordat. Research managers and leaders generally undertook 'a thorough review of the policies and processes related to research integrity' in order to provide assurance to their institutional leadership that their research organisation was compliant with the commitments and expectations set out in the concordat. The following account is typical of the process followed by respondents:

A working group [...] was set up to look at options for raising awareness of research integrity as part of developing [the university's] compliance with the concordat. Reporting in summer 2013, this identified proposals for both urgent actions to be undertaken and some options for longer-term developments.

For most, the outcomes of such reviews were not wholesale changes to the policies relating to the governance of research, investigating allegations of misconduct or related to the general support frameworks that were in place, but incremental developments to policy and process. For example:

In reviewing current processes for Concordat compliance, some operational gaps have been identified in relation to the capture mechanisms for funded research. Activity is being undertaken to minimise these gaps and to ensure that any future systems development activities embed research integrity requirements.

Where specific issues were identified, the concordat and associated internal reviews provided evidence on which new activities could be based:

One of the areas highlighted for further analysis and development in the action table is 'other research' [that is] research that does not involve animals, humans, human tissue or data. A Task and Finish Group is being set up to fully scope the integrity mechanisms that are

currently in place in this area and identify further developments to enhance compliance with the Concordat.

The broad scope of the concordat, and flexibility inherent to the approach, allowed it to be used as a framework for evaluating existing management and governance arrangements across the whole institution. Indeed, given that the scope of any university's research mission is likely to evolve over time, arrangements have sometimes developed in a piecemeal fashion, often focused overtly on those areas deemed 'high risk'. While it is correct that institutional approaches ought to be proportionate to risk, understanding where arrangements differ is important, if only so that institutional leaders can be aware of this differentiation and the rationale for it. The concordat is therefore considered as a useful lens through which existing mechanisms can be reviewed, and has been used – and productively so – to highlight any distance between where an institution would like to be, and where its current level of maturity sits. Respondents were consistent in stressing that what constitutes an appropriate system of governance was bound by institutional contexts; there was no single, transferable 'one-size-fits-all' approach.

When used as a holistic frame through which other institutional policies governing research can be viewed, the concordat has also acted as a mechanism for bringing together a wide variety of different policies and activities. In one institution, following a gap analysis, its review:

revealed that, once considered in the cultural fashion that the concordat requires, issues of integrity become connected to many others, including researcher development, publication policy, funding ethics and information security. It was therefore vital these connections be considered in an integrated fashion rather than in a piecemeal mode, with an emphasis on values-based cultural approaches.

This was not an isolated case. Again, following their own review process, another respondent noted that:

We are working to bring together the 12–15 areas across the university that deal with [research integrity] in some form. There are many things in the [concordat] which are dealt with at the university but which are not currently coordinated under the banner of [research integrity].

This suggests a (potential) transformative impact on the way institutions approach not only research integrity, but the holistic set of policies that govern their research activities. The concordat has been employed as an overarching framework that is helping to provide greater coherence for a range of institutional and sector-level policies, and being used to support wider cultural change.

THE IMPORTANCE OF ORGANISATIONAL CULTURE

The concordat itself places great emphasis on the importance of creating a research environment that is conducive to good practice, and where integrity is a key part of institutional culture. Creating this culture and environment must be a process of continuous improvement, where there is always scope to learn, develop and improve. Further, in order to embed the principles conveyed by the concordat, it is critical to work within (and not against) local cultures. As one submission argued:

We can put the policies, processes, support and guidance in place to encourage staff and students to conduct their research within the parameters of good conduct, but we cannot 'ensure' that they do this.

Another noted that while 'the University has put policies in place', at the 'local (unit level), practice varies significantly'. Hence it is imperative that any approach to the concordat – indeed, to any policy intervention looking to work across diverse and autonomous research communities – recognises, works within and reflects the culture within an institution. This is not, as many respondents reflected, a simple task in a diverse environment:

A continued challenge to all parts of the sector [...] is ensuring research integrity is firmly embedded in our culture, at all levels and with all staff. Given the breadth and variety of disciplines within one institution it can be difficult to identify positive metrics for research integrity as the focus can become centred on the number of allegations of misconduct in research which does not provide a true measure of progress.

This raises an important point: if the broad, aspirational and developmental approach intended in the concordat becomes reduced to simplistic measures such as reported instances of misconduct, this will serve to alienate stakeholders at all levels of the process. This would be counterproductive in the extreme. Organisational cultures are complex, and therefore working within a flexible and dynamic framework is vital if broad-based support is to be realised. In the context of the university environment – where institutions and researchers both prize and respect autonomy – developing engagement on any issue means ensuring that the benefits of engaging with and understanding local policies and expectations are understood, and that these policies and expectations are not seen as being didactic, top-down initiatives. As one respondent made clear:

The key challenge as we see it is the embedding of good research practice across all aspects of research within the university without taking an overly bureaucratic approach. This is not about 'policing and enforcement' but about shifting cultural and social practices in relation to research governance, so for example the University has decided not to enforce mandatory research integrity training which might [have] been seen as ticking the box but achieving little real 'buy in'. The challenge is to fully embed understandings of how and why research integrity and good governance of research improves the quality of research, and enhances the reputations of those involved (and vice versa) and what that means in practice for an individual researcher.

'The challenge', as another respondent noted, 'is determining what are the "carrots" to ensure that this approach is successful and this often has to be discipline-specific'. These reflections are from institutions with very different research profiles, but demonstrate a shared understanding of the need to work within academic cultures, developing contextualised solutions to embed and address the commitments in the concordat.

The need to work within existing cultures explains, in part, the focus of institutional responses to the concordat being on policy and processes, and may help to explain why awareness of the concordat itself is believed to be more limited among research-active staff than leaders, managers and administrators. It is important that this is not, however, seen as a barrier to engaging with the wider research community or a 'failure' of the concordat. It is also vital that institutions are able to articulate how they are coordinating activity at the level of the institution, so that external stakeholders can have confidence that the messages of the concordat – and a focus on supporting and enabling a culture that supports good research practice – are being taken forward.

As the important report by the Nuffield Council on Bioethics, *The culture of scientific research in the UK*¹⁴, highlighted, researchers themselves suggest that there are systemic pressures that may promote poor research practices, such as hyper-competition and career progression, and that influence academic practice in both good and bad ways. Given this – and the clear focus of the concordat on providing an environment conducive to good practice, as exemplified under commitment 3 – there is scope for institutions to take steps that may help develop this positive research culture. For example, supporting the Declaration on Research Assessment¹⁵, which argues (among other things) for a more considered and nuanced approach to evaluating academic performance, may be one simple and highly symbolic action that institutions can take to signal a commitment to real and sustained cultural change. Wider systemic issues are, however, beyond the scope of any concordat to address fully.

¹⁴ Nuffield Council (2014) *The culture of scientific research in the UK*, available at: www.nuffieldbioethics.org/wp-content/uploads/Nuffield research culture full report web.pdf

¹⁵ See San Francisco Declaration on Research Assessment, available at: www.ascb.org/dora/

THE 'BURDEN' OF IMPLEMENTATION?

The task of adopting any new policy and taking steps towards implementation will bring with it costs. However, whether this is viewed as a 'burden' involves two related questions. First, the size of the investment needed; and second, the value of the resulting actions to the institution. As one respondent reported: "Burden" implies something negative, but the [concordat] has been a positive thing.' While this was not a universal finding, it did represent a fairly common response.

However, there have clearly been costs associated with implementation. Take, for example, the following comments:

The burden is in mapping the different areas/activities and bringing them together. The largest burden going forward will be in monitoring, which is not done centrally at the moment.

Also:

The key challenges of implementing the concordat relate to the time and resource required for communication, training, support and advice in order to embed the knowledge of the requirements across the research community. As the research community is not static this requires an ongoing commitment.

And finally:

The focus on efforts to ensure adequate training, appropriate resources, and monitoring arrangements has resulted in a short-term increase in administrative workload.

Mapping, monitoring, ongoing communication, and training and development opportunities: these were consistently identified as the main 'costs' associated with the concordat. However, there was no clear agreement on either the level of *additionality* that such activities created, with the vast majority considering much of the activity (apart from monitoring of compliance) to be taking place already, even if it was not being coordinated or fully understood at the institutional level, or that any additional activities failed to add value. Indeed, many of the investments and actions taken by universities were seen – at least by research management professionals – as beneficial in the long term. For one respondent, the introduction of the concordat represents 'a welcome support structure for efforts that are already undertaken, there has not been a significant administrative burden.'

However, where there does appear to have been some additional burden is in the identification of new roles within the institution to take the lead on research integrity issues. Most research-intensive universities already had arrangements in place and therefore any additional investment in this area was seen to be (relatively speaking) smaller than in less research-intensive institutions.

As one respondent argued:

It is disproportionately more expensive for smaller research institutions to establish the necessary infrastructure for good research governance. For research intensive universities there is a larger pool of research funds and indirect costs from which this can be taken. An example of a real challenge here is research data management – the cost of setting up and supporting an accessible data repository is not in a linear relationship with the amount of research being supported.

Thus the concordat has created some additional workload through the administrative, reporting and monitoring mechanisms; however, at the institutional level, this is generally seen as an investment and legitimate cost rather than a burden, and is relatively small. The concordat is more generally perceived as strengthening pre-existing mechanisms, or providing impetus to develop a more appropriate or streamlined approach to research integrity activities. Indeed, a significant proportion of respondents found it difficult to attribute any additional administrative burden to the concordat itself, but recognised that enhancing the support mechanisms and, for example, training programmes that they saw as desirable, definitely required an injection of resources.

However, where there is some agreement that an additional burden has emerged is at the level of the individual. While activities may have delivered value to universities, and the costs for an institution were reasonable, it is evident that in some cases overall responsibility for providing assurance with the concordat (and with it, a broader programme of activities to support good research practice) had often been added to an existing role and, at times, without a corresponding increase in support or resource for the individual.

The critical messages here are three fold. First, that flexibility and proportionality are fundamental to ensuring that the concordat continues to be used across the range of institutions, and that any future developments (for example, around articulating compliance requirements – see below, p.25) are sensitive to these needs. Second, any changes should be focused on guidance rather than changing the concordat itself; as one respondent suggested, many of the costs of establishing appropriate mechanisms and policies had already been absorbed, and should now be seen as 'businesses as usual': 'Provided the document remains broadly static, the administrative burden of monitoring compliance and updating documents should fall within the capacity of normal resource.' And finally, it should be incumbent upon institutional leaders to ensure that research professionals tasked with providing assurance over compliance are adequately supported if they are to continue discharging their responsibilities effectively.

UNDERSTANDING COMPLIANCE

Compliance with the concordat is a requirement for both RCUK and Hefce funding, and other national funding councils have expectations around its implementation (see Annexe C). As far as the two organisations have investigated compliance, there have been no instances where a university has been identified as being insufficiently developed to be considered non-compliant (see Annexe E for further details). However, there have been issues with what this, in practice, means for institutions.

Broadly, the sector has understood that the concordat signals a course to steer, not a destination. Most institutional respondents did not consider that compliance with the concordat (as they understood it) presented significant problems, given the scope of policies and regulation already in place. Indeed, the concordat itself is used to frame university policies and procedures that deliver on the objectives and commitments set out in the concordat; it does not supplant these policies.

Bringing compliance with the concordat within funding and research council conditions and assurance mechanisms was therefore viewed, by most, as an understandable development and, broadly speaking, desirable. It was noted that the level of engagement with the concordat and the high level of activity found across the sector may not have occurred without such a link. Indeed, the requirement to embed the concordat as a condition of grant funding helped implementation and raised awareness of the need to 'sustain efforts to maintain the highest standards of rigour and integrity in all aspects of research.' There was broad acceptance that using the existing compliance and assurance mechanisms *was*, in fact, a proportionate approach, and certainly preferable to a new and distinct monitoring and/or audit process.

Figure 5: RCUK assurance questions on research integrity and ethics (April 2014)¹⁶

- 1. Please confirm that you have policies and procedures in place that meet the above requirements, including processes for dealing with allegations of misconduct. How often are these reviewed and when were they last reviewed?
- 2. Please provide the publicly accessible weblink to these policies and the name of the senior officer responsible for dealing with cases of misconduct.
- How are these policies disseminated to staff? Please indicate if any special provision is made for new employees (including postgraduate students) and also how staff awareness is maintained.

¹⁶ For more information on Research Councils UK (RCUK) assurance on research integrity, see: www.rcuk.ac.uk/funding/researchintegrity/

- 4. Please outline any actions and activities that have been undertaken to support and strengthen understanding and application of research integrity issues (for example, postgraduate and researcher training, or process reviews).
- 5. How many formal investigations of research misconduct have been completed in the past three completed academic years which relate to researchers funded by or responsible for funding from Research Councils (including supervisors of postgraduate awards)?
- 6. The Research Councils expect that the research they support will be carried out to a high ethical standard. Please explain the arrangements you have in place for reviewing that any research funded by the Research Councils is planned and conducted in accordance with such ethical standards.

However, while the general thrust of this development was welcomed, there was less agreement this had been communicated adequately by signatories. Audit processes were 'unclear for a significant period of time after publication' and what clarity there was had 'not happened under the initiative of UUK or the funders'. This meant that there was 'a lack of consensus on what implementation really involves' that has only recently improved. Most respondents across the range of interviews and submissions believed that they now had an adequate sense of what was needed and appropriate. This had largely been arrived at through experience, sharing across peer networks and support from bodies such as UKRIO, rather than the funding bodies or other signatories (see below, pp.26–27).

Many respondents expressed a desire for greater support and guidance through the sharing of case studies and best practice (rather than any form of compliance checklist). For example, one respondent argued that while 'compliance activity should be avoided as this will ultimately be destructive', they would welcome 'non-binding examples of good practice and resources' that provided insight and guidance but, ultimately, ensured that autonomy over implementation was retained. Another argued succinctly that, while 'further guidance is always welcome', the

only note of caution concerns the need to recognise that each institution operates differently – both structurally and culturally – and we have welcomed the degree of flexibility built into all guidance on implementation produced so far.

As a consequence, there appears to be general agreement that signatories should provide further guidance on what they see as the key requirements of compliance, but that this should continue to be sensitive to the autonomy and diversity of institutions:

One of the benefits of the concordat is that it is not detail-packed and represents an easy-read. It focusses on creating a culture of good research practice as opposed to taking a compliance-led approach.

The latter should not be lost in an attempt to clarify requirements.

SUPPORT MECHANISMS USED TO GUIDE IMPLEMENTATION

Given the aspirational nature of the concordat and the diversity within the sector, institutions have tended to look within the higher education community for support in addressing the commitments in the concordat. However, this has not been limited to the UK, with many taking a global view and drawing on a range of advice, guidance and good practice. In the first instance, however, those tasked with leading implementation have tended to look to their peers, comparing websites and publicly available resources and activities taking place in similar institutional settings. A number of respondents reported gaining legal advice on the implications of changes on human resources policies, to better understand any barriers to change within the context of their own institution.

Considering the international context of the concordat, many respondents also looked to international frameworks¹⁷, such as the Singapore Statement on Research Integrity, and the European Code of Conduct for Research Integrity. Similarly, many looked to materials available via the European Science Foundation and the US Office of Research Integrity (ORI) to inform responses. For those who are members, it was also reported that the League of European Research Universities (LERU) Expert Group on Research Integrity also proved a valuable resource.

For better understanding of the nature of UK-specific compliance, and for gauging the appropriate extent of institutional responses, all respondents used sector policy documents, specifically Hefce compliance guidance¹⁸ and RCUK's *Policy and Guidelines on the Governance of Good Research Conduct*¹⁹ and *Assurance Questions*²⁰, to help inform their responses. Informal forums have been established as a response to the concordat, or developing a coordinated response to the concordat has been integrated into the work of existing groups. Within institutions, university research ethics forums and research integrity working groups have been used to inform and monitor implementation, and broader associations of such groups have provided safe forums through which peers can share experiences.

Among the most frequently cited were the UK University Research Ethics Committees Forum and the Russell Group Research Integrity Working Group, both of which were seen as invaluable assets for open discussion and shared learning. As one respondent reported, such forums 'provided valuable opportunities for institutions to learn from one another and support shared efforts to foster a research environment that nurtures research integrity.'

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¹⁷ For a full list of references, see Annexe D.

¹⁸ HEFCE (2013) Circular letter 21/2013: Compliance with the Concordat to support research integrity, available at: www.hefce.ac.uk/pubs/year/2013/cl,212013

¹⁹ RCUK (2013) *Policy and Guidelines on the Governance of Good Research Conduct*, available at: www.rcuk.ac.uk/documents/reviews/grc/rcukpolicyandguidelinesongovernanceofgoodresearchpracticefebruary2013-pdf/

 $^{^{20}}$ RCUK (2014) Research Integrity Assurance questions, available at: $\underline{\text{www.rcuk.ac.uk/funding/researchintegrity/}}$

Many also emphasised the important role that professional associations and membership groups play for those tasked with implementing the concordat. The Association for Research Ethics (AfRE) ²¹ and the conferences organised by the Association of Research Managers and Administrators (ARMA)²² were particularly noted as providing invaluable support to their members (and institutions more generally).

However, the most oft-cited resources that institutional leads on research integrity drew on were those provided by the UK Research Integrity Office (UKRIO)²³, with both the 'hard' guidance available through UKRIO (such as model policies and processes) and the 'soft' support (such as informal advice and the annual conference) being highly valued. In particular, the UKRIO *Code of Practice for Research* and the *Concordat self-assessment tool*²⁴ were commended. This was particularly valued by institutions when initiating a gap analysis or audit of institutional policy and procedures (as discussed above, p.16). UKRIO and the resources it had made available had:

been of immense benefit in enabling us to manage the process and its implementation as well as being an excellent source of materials and personal contributions to our training and development in this area.

However, an important point to note is how different mechanisms of support have been drawn on to provide a more holistic and comprehensive understanding of research integrity, best practice and compliance. The concordat was used alongside multiple sources of support and guidance to help develop practice. For example:

The Concordat, the Code of Practice for Research and the Self-Assessment Tool [...] have, together, provided a comprehensive set of tools with which to understand and promote research integrity within the institution.

The development of an organic, sector-owned set of support mechanisms, resources and activities is to be commended. However, it was observed that not all available resources are available (or known) to all institutions, and that there may therefore be a case for a more coordinated approach to provision. As one respondent remarked, to understand both the requirements of the concordat and the resources available to support institutions 'has been left to the serendipity of attending specific events, or belonging to the right organisations'. Benefits might be realised from providing a single forum or resource bank to support implementation of the concordat.

22 www.arma.ac.uk/

²¹ http://arec.org.uk/

²³ http://ukrio.org/

²⁴ For a complete list of guidance available from UKRIO, see http://ukrio.org/publications/

PUBLIC INFORMATION ON RESEARCH INTEGRITY AND MISCONDUCT

One of the recommendations of the concordat is that universities should provide accessible public information on their efforts to embed the concordat, and on their policies and practices relating to research integrity and research misconduct more generally. Earlier this year, a light-touch survey of institutional websites was conducted to explore the provision of this information (see Annexe B for details). Simple searches of institutional websites were conducted to see how easy it was to find information on research integrity, such as a named point of contact for research integrity issues (excluding generic departmental addresses), policy and guidance documentation, any publicly available resources and annual narrative statements. The results were mixed.

Of 131 institutional websites, 67 were judged to be 'good' or 'excellent', and 64 were found to be in need of improvement, lacking one or more of the key components noted above. Findings from the website audit suggest that many institutions need to make small but important improvements that will enhance the visibility of their work on research integrity and misconduct, such as providing a named contact for research integrity issues. This should be regarded as a priority for institutions. While just over three-quarters (77%) of institutional websites had a discoverable public webpage focused on research integrity and/or research ethics, the quality and scope of information being made available varied. Of the websites analysed as part of this process:

- 85% had publicly available policy documents related to research integrity, ethics, and/or research misconduct procedures
- 37% had at least one named member of staff with contact details listed for research integrity enquiries
- 26% had at least one annual narrative statement on research integrity that was publicly available
- 23% had some learning materials related to research integrity, aimed at staff members, publicly available on the website

As one may notice, most institutions had a discoverable page, but the information was not always displayed in a manner that would be easy for a lay person to comprehend, meaning that often valuable and relevant material was not clear and was sometimes included alongside more general information on institutional policies or research ethics committees.

A key recommendation of the concordat is to provide a named contact for research integrity. Many institutions had generic email addresses, and as such did provide a mechanism for any visitor to the site to make an enquiry; however, the authors took the view that having a named contact improves accountability and transparency. Only 37% of institutions appear to provide such information.

It is also evident that only a minority of institutions (26%) have made an annual narrative statement public. The authors were told that a lack of clarity over what the statement should contain, and some confusion over whether this was a 'recommendation' or a 'requirement' of the concordat and subsequent compliance mechanisms, lay behind this finding. For those institutions that had made their annual narrative statements public, most had taken the opportunity to provide a rich description of activities that had been undertaken to promote research integrity, focusing on training and development and new policy processes, as well as information on the nature and scope of instances of alleged misconduct. Although it is not an obligation in the concordat for universities to publish information pertaining to misconduct cases and allegations, most of the 35 annual narrative statements found on websites during the audit chose to do so. None of those institutions appears to have been adversely affected by the inclusion of such information.

Given the importance of transparency, and the role a public statement on research integrity could play in improving both accountability and the visibility of the excellent work taking place within institutions, there should be an expectation that research organisations in receipt of public funding will produce an annual narrative statement setting out their approach to implementing the concordat. It is incumbent on the signatories to articulate their expectations in a clear and consistent manner.

CONCLUDING REMARKS

Throughout the development of this report, the authors have worked with representatives from a wide range of institutions as part of an effort to understand how the Concordat to support research integrity (the concordat) had affected the practice and culture around research. There appears to be broad-based support for the concordat approach, as its inherent flexibility is highly valued. Autonomy is very important to both researchers and research organisations, and the very different contexts present in different settings mean that there needs to be space for solutions and approaches to be developed that reflect – and, importantly, garner strength from – local differences. There is no desire for the basic concordat approach to be reconsidered, or for the text of the concordat itself to be revised. Broadly speaking, it is perceived as appropriate, proportionate and – potentially – very effective.

Over the course of the reporting process, it has become clear that there has been a positive response to the concordat, with institutions using the opportunity to reflect on and analyse their own policies, processes and practices, and to assess whether these are fit for purpose. In most cases, these gap analysis exercises have led to incremental yet material changes. It is impossible, however, to evaluate the impact on research practice: knowledge of the concordat among research-active staff is believed to be relatively low. The authors suggest that this is not necessarily an issue if understanding of institutional policies and disciplinary norms and standards is sound.

In rolling out the concordat across the university sector, research managers and administrators report being empowered to act, using the opportunity to engage their academic community. The concordat provided an opportunity to promote the services available to researchers, and to restate institutional expectations. It has also proved an important mechanism for drawing together activity across different disciplines or different institutional policies, helping to provide a more holistic framework for action. Those tasked with implementing the concordat have subsequently developed a range of professional networks, providing forums through which best practice has been shared and different approaches to (and understandings of) implementation have been tested.

This has, one might argue, been an extremely valuable and rewarding consequence of what was otherwise seen as a lack of clarity and guidance from the originating signatories. The light-touch approach to compliance was not deemed overly problematic; however, when funding and research councils linked compliance to funding and other conditions, a clearer articulation of requirements would have been welcomed – with the proviso that this should not become direction over implementation activities. This was articulated in the strongest terms by virtually all respondents.

Implementation of the concordat has not been without challenges, and there needs to be a continued focus on embedding the concordat by all stakeholders. Four related points need to

be addressed, which could have a transformative impact on the concordat and its implementation.

First, there needs to be better and clearer communication from funders of their expectations relating to implementation and compliance, and from organisations such as UUK to ensure that research organisations are fully aware of their duty to ensure a continued focus on research integrity. However, it is also clear – as noted already – that greater clarity should not slip into direction over implementation; the focus of funders and signatories should be on openness and transparency to provide assurance, not on how the concordat is implemented.

Second, research organisations should take the opportunity presented by this report to revisit the profile they give to research integrity in their public-facing activities. Improving accessibility to information on, for example, policies around research integrity and misconduct, and working towards greater transparency, should be considered priorities. As the survey of public information has shown, there is much to do here. Yet there are also many examples of excellent practice that can be drawn on by those tasked with implementation.

Third, there should be greater coordination of support activities. This would be helpful to practitioners and welcomed. Again, this should in no way seek to disrupt the excellent work that has emerged organically. More, the approach should be to provide a greater degree of coherence and coordination to activities, helping those who need support to identify the people and resources that can help.

And finally, institutional leaders have demonstrated their commitment to implementing and embedding the concordat, and there has been investment in people, policies and training, building on what were already strong foundations. However, a number of those engaging with this report noted that responsibility for assurance was being added to existing roles. Institutional leaders should ensure that those tasked with bringing about a step-change in research integrity continue to be resourced, supported and empowered appropriately.

The concordat cannot 'solve' the 'problems' of research misconduct and questionable research practices — indeed, no form of governance and regulation could do such a thing. However, it can, and has, been used to shine a light on current practice. The concordat approach has been used to identify good practice and also reveal areas where greater attention and focus would be beneficial. Universities have responded positively to the concordat since its publication in 2012. It is now time for all stakeholders in the sector to redouble their efforts, and set a clear agenda for the future.

The working group will therefore meet at the start of 2017 to establish an action plan to implement the recommendations of this report and to agree the terms of reference for the proposed Annual Research Integrity Forum. A key part of achieving these objectives will be collaboration and cooperation with other stakeholder groups.

ANNEXE A: MEMBERSHIP OF THE RESEARCH INTEGRITY CONCORDAT WORKING GROUP

The development of this report was overseen by the Research Integrity Concordat Working Group, membership of which changed over time.

- Jamie Arrowsmith, Programme Manager, Universities UK (Chair)
- Simone Bayes, Head of Research Standards and Support, Department of Health
- Helen Bodmer, Head, MRC and BBSRC Team, Department for Business, Innovation and Skills
- Donna Crothers, HE Research Policy Branch, Department for the Economy, Northern Ireland
- Bill Davidson, Research Governance Manager, Department of Health
- Michelle Dodson, Head of Policy and Cohorts, Economic and Social Research Council
- Max Hastings, Policy Researcher, Universities UK
- Christine Holmes, Lead, Research Integrity, Department of Health
- Vicky Jones, Senior Policy Advisor, Research Policy Team, Higher Education Funding Council for England
- Carol McCabe, Head of Research Policy, Department for Employment and Learning, Northern Ireland
- Hazel McGraw, Policy/Analysis Officer, Scottish Funding Council
- Tony Peatfield, Head, Corporate Governance, Policy & International, Medical Research Council
- Nicola Perrin, Head of Policy, Wellcome Trust
- Linda Tiller, Senior Research Manager, Higher Education Funding Council for Wales

ANNEXE B: ABOUT THIS REPORT

UUK would like to thank the UK Research Integrity Office, the Russell Group and the University Alliance for their support in garnering feedback from their members, in addition to the signatories of the concordat who, via the Research Integrity Concordat Working Group (see Annexe A), oversaw the development of this report. Through these partners and independent research, a broad range of evidence has been considered as part of this report, including the following:

- **UUK in-house records:** UUK records information pertaining to the number of times the concordat has been accessed through the UUK website, and the number of requests for hard copies.
- Audit of 131 institutional websites: UUK conducted a light-touch audit of each member university website in June 2016.
- Annual narrative statements from institutions and signatories: in an earlier website audit in summer 2015, annual narrative statements (or similar) were collated and separately analysed. A total of 19 statements were found.
- **University case studies:** a range of institutions were invited to prepare case studies. Seven institutions participated and agreed to have their case studies considered by the working group to help to inform the group's understanding of issues around implementation.
- Semi-structured telephone interviews with institutional representatives: between July 2015 and November 2015, a sample of 25 universities – with a range of missions and operating in a variety of contexts – were invited to take part in an interview to explore how the concordat is understood and implemented. A total of 19 interviews were completed.
- **Submissions via partners:** in addition to the telephone interviews, 49 additional submissions (based on a common interview schedule) were received via UKRIO, the Russell Group and the University Alliance. Meetings were also held with representatives from each of these groups to garner the views of their organisations.

This report also benefited from discussions on the concordat and research integrity issues at a number of events, including dedicated sessions on the concordat held at UKRIO annual conferences²⁵ (May 2015, May 2016, both London) and at a Westminster Briefing event on research, governance and ethics²⁶ (February 2015, London); a seminar on the integrity of science hosted by Imperial College²⁷ (May 2015, London); and a Nuffield Council on Bioethics workshop on the culture of scientific research²⁸ (July 2015, Aston University).

²⁵ http://ukrio.org/events/2015-annual-conference/

²⁶ http://10times.com/research-governance-and-ethics

²⁷ www3.imperial.ac.uk/newsandeventspggrp/imperialcollege/eventssummary/event 27-4-2015-17-11-29

²⁸ http://nuffieldbioethics.org/project/research-culture/followup-workshops-2015/

The authors thank the hosts and coordinators of these events for providing informal forums through which invaluable insights on both the concordat and research integrity issues were garnered.

ANNEXE C: REQUIREMENTS OF MAJOR UK FUNDERS

The table below provides an overview of the funding and compliance requirements of major funders of UK research as they relate to the concordat to support research integrity.²⁹

Funding council or organisation	Associated requirement	Monitoring method
Research Councils UK (RCUK)	Compliance with the concordat is a requirement for the receipt of RCUK funding.	RCUK asks annual assurance questions to a sample of researchperforming organisations.
Higher Education Funding Council for England (Hefce)	All institutions eligible to receive research funding from Hefce are required to comply with the concordat. ³⁰	Hefce asks institutions to provide confirmation of compliance through the Annual Accountability Return.
Higher Education Funding Council for Wales (Hefcw)	Hefcw has notified institutions that they are required to comply with the concordat but has not made this a formal condition of grant.	Hefcw asks institutions to provide confirmation of compliance through the Annual Assurance Statement.
Scottish Funding Council (SFC)	SFC has notified institutions that they are required to comply with the concordat but has not made this a formal condition of grant.	SFC seeks assurance of institutions' compliance with the concordat through the Outcome Agreement process.
Department for the Economy, Northern Ireland (formerly the Department for Employment and Learning) (DEL)	All institutions in Northern Ireland eligible to receive public funding for research are required to comply with the concordat.	DEL asks institutions to provide confirmation of compliance via the Hefce Annual Accountability Return.
National Institute for Health Research, NHS (NIHR)	NIHR references the concordat alongside the principles underpinning all publicly funded research in the NHS. ³¹	NIHR does not directly monitor compliance with the concordat.
Wellcome Trust (WT)	WT's grant conditions require all funded organisations to endorse the commitments of the concordat.	RCUK shares information from its assurance mechanisms with WT, avoiding duplication.

 $^{^{29}}$ Hefce, DEL, SFC and Hefcw provided information to UUK via email, December 2015.

³⁰ www.hefce.ac.uk/rsrch/integrity/

³¹ www.nihr.ac.uk/about-us/our-purpose/principles/

ANNEXE D: ADDITIONAL REFERENCES

INTERNATIONAL AND OTHER SECTOR VIEWS ON THE CONCORDAT (P.12)

- Australia: The Concordat to Support Research Integrity Universities UK, available
 at: www.ahrecs.com/resources/the-concordat-to-support-research-integrity-universities-uk
- Cancer Research UK: Conditions of your grant, available at:
 www.cancerresearchuk.org/funding-for-researchers/applying-for-funding/conditions-of-your-grant/research-integrity
- Council of the European Union: Council conclusions on research integrity, available at: http://data.consilium.europa.eu/doc/document/ST-14853-2015-
 INIT/en/pdf
- Denmark: Danish Code of Conduct for Research Integrity, available at:
 http://ufm.dk/en/publications/2014/files-2014-1/the-danish-code-of-conduct-for-research-integrity.pdf
- International campus: University of Nottingham Code of Research Conduct and Research Ethics, available at:
 www.nottingham.edu.cn/en/research/researchethics/unnc-research-code-ofconduct.aspx
- **Ireland**: National policy statement on Ensuring Research Integrity in Ireland, available at www.iua.ie/wp-content/uploads/2014/06/National-Policy-Statement-on-Ensuring-Research-Integrity-in-Ireland-2014.pdf
- MQ (mental health charity): Sponsored research policies, available at:
 www.mqmentalhealth.org/sponsored-research-policies
- Royal Botanical Gardens at Kew: Annual Report and Accounts, available at:
 www.kew.org/sites/default/files/assets/KPPCONT_080464_Primary.pdf
- United States: Blog on the Concordat to support research integrity, available at: http://ori.hhs.gov/blog/uk-groups-release-concordat-support-research-integrity

FURTHER SUPPORT AND GUIDANCE (P.26)

- ESF/ALLEA (2011) The European Code of Conduct for Research Integrity, available at: <u>www.esf.org/fileadmin/Public_documents/Publications/Code_Conduct_ResearchIntegr_ity.pdf</u>
- Hefce (2013) Compliance with the Concordat to support research integrity, available at: www.hefce.ac.uk/pubs/year/2013/cl,212013/
- RCUK (2013/2015) Policy and Guidelines on the Governance of Good Research Conduct, available at: www.rcuk.ac.uk/Publications/researchers/grc/

- RCUK (2014) Research Integrity Assurance questions, available at: www.rcuk.ac.uk/funding/researchintegrity/
- UK University Research Ethics Committees Forum:
 www.kcl.ac.uk/innovation/research/support/ethics/training/ukurecforum.aspx
- World Conference on Research Integrity (2010) Singapore Statement on Research Integrity, available at: www.singaporestatement.org/statement.html

ORGANISATIONS

Association for Research Ethics http://arec.org.uk/
 Association of Research Managers and Administrators www.arma.ac.uk/
 European Science Foundation www.esf.org/home.html
 Office of Research Integrity (USA) https://ori.hhs.gov/
 UK Research Integrity Office http://ukrio.org/

ANNEXE E: DATA ON ALLEGATIONS OF RESEARCH MISCONDUCT

Data and information on allegations of misconduct remain imperfect, yet a number of sources are available that, if used with caution, may help to give a sense of the magnitude of reported allegations. Given that the sources of this information do not operate using a standard vocabulary or reporting framework, and some of the reporting mechanisms have changed over time, one must be careful in attempting to draw conclusions from the available data.

The three sources of information drawn on here are:

- allegations of misconduct reported to RCUK through direct reporting to individual councils and through the quality assurance process
- allegations of misconduct reported in university annual narrative statements
- confidential evidence supplied by UKRIO on the number of enquiries and cases with which it is engaged

The summary of RCUK quality assurance data shows that, over the three years 2012–13 to 2014–15, 47 research organisations had been through the assurance process. All have been found to be compliant with the concordat, achieving 'satisfactory' assurance as a minimum. Of these research organisations, total of 33 allegations of research misconduct were reported: five allegations were formally upheld, 20 were dismissed following formal investigation and the remainder were subject to ongoing investigation. It should be noted that the criteria for reporting allegations were altered between the 2012–13 and 2014–15 assurance process based on feedback from research organisations and other stakeholders to include only completed investigations. It was felt that this was more appropriate (to prevent double-counting of allegations and investigations), but does mean that the data from 2012–13 and 2013–14 is based on different definitions.

In terms of allegations of research misconduct and subsequent investigations highlighted in the annual narrative statements published by 19 universities, a total of 29 allegations were reported (for the year 2013–14), with seven cases upheld after investigation. Many institutions included allegations of misconduct by postgraduate research students, and it was not always clear whether all allegations, allegations leading to formal investigations or only those allegations that were completed, were reported.

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