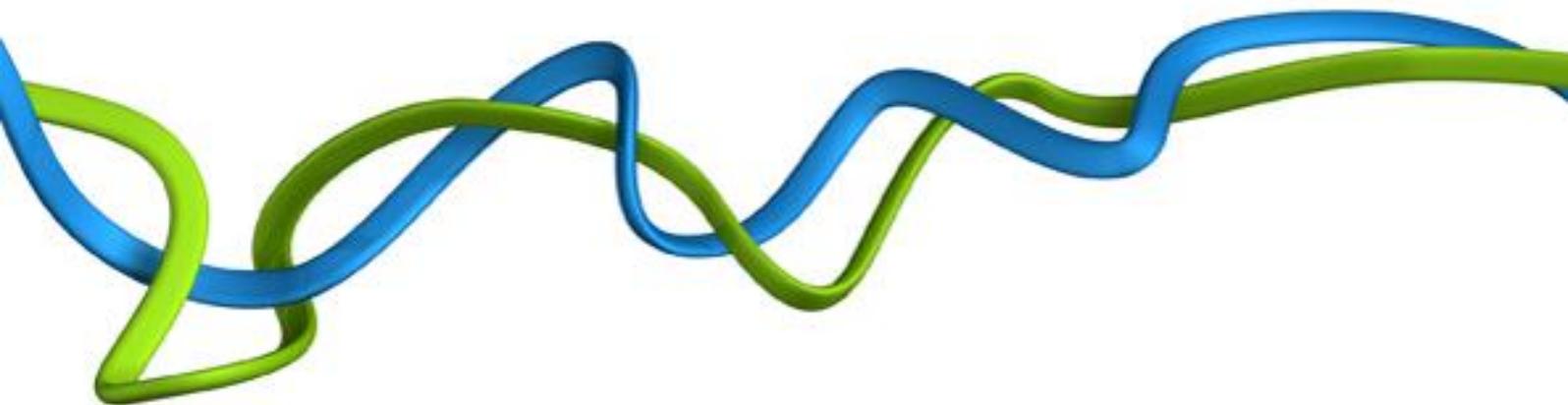


Consultation on the Concordat to Support the Career Development of Researchers

Submission from the Royal Academy of Engineering

November 2017



About the Royal Academy of Engineering

As the UK's national academy for engineering, we bring together the most successful and talented engineers for a shared purpose: to advance and promote excellence in engineering.

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Introduction

The Royal Academy of Engineering welcomes the opportunity to respond to the review of the Concordat to support the career development of researchers. The Academy is the UK's national academy for engineering and has been a signatory of the Concordat since it was established.

The Academy is a national research funder. Through a number of different programmes the Academy funds excellent researchers across the full breadth of engineering in the UK. The Academy's research portfolio covers all academic career stages, with the exception of PhD students. The Academy's research portfolio operates at a relatively small scale compared to other national funders; as of September 2017, the Academy had 126 award holders. The Academy's research programmes focus on funding high-quality engineering research with industrial impact and enabling partnerships with industry. As well as funding, the package of support provided by the Academy's research programmes includes training opportunities, access to the Academy's networks and mentoring from the Academy's Fellowship: some of the most successful engineers and industry leaders in the UK and beyond.

As a funder of research and signatory to the Concordat, the Academy abides by and promotes the principles set out in the Concordat. One example of how the Academy fulfils the principles and underpinning guidelines in the Concordat, is the mentorship provided by Academy Fellows to grant awardees. Mentors can provide long-term career development advice to their mentees and they also meet with representatives of the grant awardees' employers, where development needs can be discussed.

Further evidence

The Academy recommends that the Expert Review Panel should take into consideration the reviews and literature associated with Research Excellence Framework (REF) 2014 and REF 2021. As noted in Lord Stern's review of the REF, the REF creates a strong performance incentive for higher education institutes and individual researchers. Consequently, the reviews of the REF and the subsequent findings, may address areas of relevance to the Concordat. For REF 2021, the environment element will have a particular focus on approaches to equality and diversity, enabling impact, supporting collaboration and structures to support interdisciplinary research, all of which link to the Concordat.

The Future of the Concordat

Overall, the Academy believes the Concordat and its principles remain relevant. However, they could benefit from being updated to better reflect the current situation with regard to researchers' careers and responsibilities.

The recognition that impact - the demonstrable contribution that research makes to the economy, society, culture, public policy or services, health, the environment, or quality of life, beyond academia - is part of excellent research has increased since the Concordat was first published in 2008. The inclusion of impact in REF 2014 and the increased significance it will be given in REF 2021 reflect this shifting view. For engineering, impact from research has always been regarded as a priority and recognised as an integral part of the career development of engineering researchers. Impact from excellent research is not explicitly recognised in the Concordat. The Academy suggests that the principles should be updated to acknowledge the

relationship between impact, defined as 'wider impact' for the REF and excellent research, and the role it plays in the career development of researchers.

The Concordat defines researchers as individuals whose primary responsibility is to conduct research and who are employed for that purpose. Researchers engage in a wide range of activities, including, but not limited to teaching, public engagement, mentoring, peer review and knowledge exchange. Collaboration, multidisciplinary research, team science, openness and creativity are particularly important in the production of high quality research. These activities and skills are also valuable to the career development of researchers both in academia and beyond. These activities are sometimes perceived to be beyond a narrow definition of what researchers do. As such, the Concordat should be updated to explicitly recognise the range of activities that contribute to developing excellent researchers who undertake excellent research and generate impact. By recognising the importance of the wider activities of researchers in the Concordat, it should incentivise the creation of a research culture that supports them.

The Academy recommends that the themes of research impact and the value of the wider activities in which researchers engage should be embedded throughout the Concordat, and in many instances included in the principle. Each principle is now addressed in turn.

A. Recruitment and Selection

The Academy recommends that the importance of developing researchers should be recognised in principle one. Development is necessary for researchers to achieve their highest potential, and is also a key factor to retaining researchers.

1. Recognition of the importance of recruiting, selecting, **developing** and retaining researchers with the highest potential to achieve excellence in research **and impact**.

B. Recognition and Value

Consideration should be given to shifting the emphasis from world-leading research to excellent research. Excellence could be deemed to be a broader and more inclusive term, encompassing research which while not necessarily world-leading is nevertheless an essential part of an excellent and diverse research base.

The Academy agrees that ensuring employers value their researchers is of utmost importance. However, consideration should be given to replacing the term human resources with human capabilities. The latter term emphasises the skills and abilities of researchers, and could be perceived by researchers more positively than the term human resources.

2. Researchers are recognised and valued by their employing organisation as an essential part of their organisation's human **capabilities** and a key component of their overall strategy to develop and deliver **excellent** research **and impact**.

C. Support and Career Development

The global research and innovation environment is becoming increasingly multidisciplinary and digitally enabled. Consequently, the Academy recommends that the principles should be updated to reflect this. Researchers, of all disciplines, need to be confident and competent, at

least to a basic level, in digital skills. Digital skills will be pivotal to the UK continuing to produce excellent research and its associated impacts.

Leadership is often an essential skill that is developed over the course of a career, and is valuable both in research and elsewhere. The Academy would like to see the importance of leadership opportunities reflected in the principles.

As noted in principle five, it is right that researchers bear a significant responsibility to engage with their own career development. However, the Academy believes that funders and employers of researchers have a responsibility to be supportive of career development opportunities and this should be explicitly in the Concordat.

As outlined above, the Academy wishes to see the role and importance of the wider activities of researchers included in the Concordat. As many of the wider activities of researchers can be integral to career development, both in research and beyond, the guidelines underpinning the support and career development principles should be updated to recognise this.

3. Researchers are equipped and supported to be adaptable and flexible in an increasingly diverse, mobile, **digitally enabled and multidisciplinary** global research and **innovation** environment.
4. The importance of researchers' personal and career development, lifelong learning **and leadership opportunities are** clearly recognised, promoted and **supported** at all stages of their careers.

D. Researchers' Responsibilities

As outlined previously, the Academy believes that impact is an integral part of research excellence and would like to see that reflected in principle five, and in the underpinning guidelines, as appropriate. Similarly, recognition in the underpinning guidelines of the importance of the wider activities which researchers engage in would also be welcome.

Researchers have responsibilities to themselves, their funders and their employers to undertake research ethically and with integrity. In addition, funders and employers have a responsibility to create research environments which are underpinned by a culture of integrity and ethical principles. The Academy believes the Concordat should increase its emphasis on the importance of research integrity and research ethics, while acknowledging that there is a separate Concordat to support research integrity¹.

E. Diversity and Equality

Promoting equality, diversity and inclusion is a high priority for the Academy. Although it is essential to have processes in place that promote equality and diversity, it is just as important to ensure that those processes are delivering progress. The Academy believes that both the principle and the underpinning guidelines should be adapted to reflect this.

6. Diversity and equality must be promoted in all aspects of the recruitment and career management of researchers **to deliver tangible progress**.

¹ [The concordat to support research integrity](#), Universities UK

F. Implementation and Review

Research and innovation is a global endeavour. Therefore, the attractiveness and sustainability of research careers in the UK cannot be accurately reviewed without consideration being given to the global context in which the UK is operating.

7. The sector and all its stakeholders will undertake regular and collective review of their progress in strengthening the attractiveness and sustainability of research careers in the UK **within a global context.**