

Consultation on the Concordat to Support the Career Development of Researchers

Concordat Strategy Group

Submission from the Royal Academy of Engineering

January 2019

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.

Consultation on the Concordat to Support the Career Development of Researchers

Concordat Strategy Group

January 2019

Purpose of the revised Concordat

1. The Academy is the UK's national academy for engineering and has been a signatory of the Concordat since it was established.
2. The Academy agrees that greater awareness of who the revised Concordat is aimed at could improve effectiveness, and so the Academy welcomes the suggested revised structure of 'Principles' and 'Obligations' which clearly addresses the responsibilities of different stakeholders. The development of a communications plan, as set out in recommendation 8, should give particular consideration on precisely on the nature of the messaging and how to reach and engage different stakeholders and audiences.

Structure of the revised Concordat

3. The Academy agrees with the proposal for the revised Concordat to include principles, and strongly agrees with the inclusion of obligations and examples of good practice.
4. The Academy supports the structure of the revised Concordat to be segmented by principal investigators (agree) and researchers, employers and funders (all strongly agree)

Improving accessibility and use by researchers, PIs, employers and funders

5. The revised structure provides clarity on the expectations for each group, and what they can each expect from the others. This has the potential to increase accessibility, uptake and use of the Concordat, as it allows people unfamiliar with the document to immediately identify their position within it. It could also facilitate an increase in individuals pushing for accountability with regards to the obligations of the other parties.
6. As a funder, we welcome the inclusion on a specific set of obligations for funders.
7. We broadly agree with the breakdown of groups as researchers, principal investigators, employers and funders. However, the definition of what a 'principal investigator' encompasses should be broadened to cover the full range of academic line managers. The title of 'principle investigator' is inherently hierarchical in an era of team science, and this definition may not be suitable. Additionally, line manager and principal investigators responsibilities often no longer completely align. The Academy would welcome the inclusion of an acknowledgement that more broadly reflects the diversity of investigator and line manager roles.
8. The proposed new structure also means that a digital version of the new Concordat could be made much easier to navigate, and attempt to clearly direct different stakeholders to different sections. This would ensure that individuals grasp quickly the relevance of the document to them in their specific role. For example, researchers, PIs, employers or funders could be directed immediately to an introductory summary and the set of principles and obligations relevant to them, before being prompted or given the option to read the rest of the Concordat. This

could be achieved simply in a variety of ways, for example through an interactive pdf or a dedicated microsite.

9. If the document is created as a physical, printed document, sections could be clearly colour-coordinated to each stakeholder in an attempt to achieve the same effect, and the production of short flyers with digestible messages should be prioritised.
10. Relevant sections should also be included in staff handbooks, which would necessitate short digestible messages.

Facilitating equality and diversity in the research environment, and creating a more diverse and inclusive research culture

11. Promoting equality, diversity and inclusion (EDI) is a high priority for the Academy. Through recommendation 7, EDI is embedded within the revised Concordat. This is through not only a dedicated principle, but also through related obligations for each stakeholder group. The Academy welcomes this change. The Academy also feels that EDI should also be included within the introduction of the revised Concordat, to highlight how central these are to readers.
12. There are well recognised and profound EDI challenges in academic careers. These challenges should receive particular attention within communications and engagement planning, evaluation of the implementation of the Concordat, and any future editions, to ensure they are not exacerbated.

Audience of the revised Concordat

13. The Academy agrees with the recommendation to explicitly broaden the definition of 'researchers' to include all staff engaged in research.
14. It is important to acknowledge and value the contributions of everyone who contributes to research, and the fact that career development is important for everyone. Employers should be creating environments that encourage recognition, and support development for all employees, regardless of role.
15. However, some of the measures set out in the revised Concordat may not be appropriate for all roles. A broad definition of researchers means that there is a considerable range of differences in the support they need and the relative levels of autonomy they require in their career development.
16. Given the variety of career paths encompassed by the broadened definition of a researcher, the need to have time to pursue independent research is not so clear for some. While measures based on independent time are essential for some, for others, guidance in the form of team working, spending time in industry and instruction in particular skills may be of much greater importance. The career challenges faced by those pursuing academic leadership roles will not be the same as those faced by individuals, for example, forging careers as technicians, or pursuing a career that is primarily teaching-oriented. The primary responsibility of the revised Concordat should be individuals employed for the purpose of research.
17. Additionally, researchers employed outside of academia are in very different circumstances and a range of diverse roles. While many components of the revised Concordat will be relevant to them, it is specifically drafted to be utilised for a higher education environment. 'Researchers employed outside of academia' would encompass both those in private companies and those working within public sector research establishments (such as the National Physical Laboratory). For the latter group the revised Concordat may be of great value and have the potential to enhance their career development. The Academy feels some clarity on this category would be desirable.

18. The Academy would exclude none of the stated groups from the revised Concordat definition of 'researchers' - this includes postgraduate researchers, teaching staff, academic staff, principal investigators, research group leaders, technicians or technical/software specialists, professional/support staff who research, senior staff who research, or researchers employed outside of academia.

Career and research identity development of researchers

19. The Academy strongly agrees that there should be increased support for researchers to develop their career and research identity.

20. The Academy strongly agrees with the proposal for funders to place "increased emphasis and support on uptake of 10 days' training".

21. The Academy strongly agrees with the proposal for employers to place "increased emphasis and support on uptake of 10 days' training".

22. The Academy disagrees with the proposal for "Allocated time within grants for developing researcher independence".

23. The Academy agrees with the proposal for "20% of a researcher's time allowed for developing independent research and skills".

24. The Academy's awards are designed to develop engineering researchers' careers and research identity. The types of support described in the previous questions are embedded within Academy practice, in a model that could be replicated by others. As a funder of research and signatory to the Concordat, the Academy abides by and promotes the principles set out in the Concordat. 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.

25. The Academy feels that the Concordat should define success on outcomes rather than processes or inputs. Inputs and measures can confuse the ends with the means, and the Academy believes that the goal of the revised Concordat should be on setting the goal, rather than focusing on specific restrictions. We would suggest it may be worth observing what positive cultural changes can be achieved without allocated time within grants, exploring what has changed after a certain period has elapsed before considering enforcement.

26. Since the development of early career researchers is a key outcome of a grant, then their personal development should be an important element of the programme. However, presenting this as a rigid obligation of 20% of time spent on personal development as something independent of or entirely different from the primary programme of work does not seem the best approach. Rather, the delivery of the whole programme should be carried out in a way that encourages and supports appropriate development of the early career researcher, building knowledge, understanding and confidence in both specialist field(s) and more broadly. Independent personal development time or activity outside the research programme, such as teaching, will be part of this, but not usually in a way that fits a separate "development day a week" model. Given the huge variation in what will be appropriate, it is probably best to require early career researchers and their supervisors to come up with a model that works for them – although some standard models and expectations would be a useful guide, as well as an appropriate organisational review processes.

27. The Concordat should be a stretching but realistic aspiration, rather than a rigidly enforced requirement.

Contracts, mobility and promotion

Fixed term contracts

28. The Academy agrees that the revised Concordat should address the use of fixed term contracts for researchers.
29. The awards granted by the Academy all provide recipients with contracts of longer than six months. However, contract length does not necessarily relate to progression and promotion – short term grants and bridging funds can have positive impacts on career development. Irrespective of contract length, individuals should be getting the opportunities and support to develop their careers and this aspect should be the focus of the Concordat.
30. Nevertheless, the goals of the revised Concordat could easily be undermined by short, fixed term contracts, through the creation of unhealthy research environments. Responsible employers should consider the consequences of contract arrangements on staff and the revised Concordat should expect employers to ensure that contract lengths do not have systematic impacts on career development. If employers become signatories to the Concordat, doing so has the implication that they must consider contractual arrangements of their staff and how they will implement the principles and obligations.

Progression and promotion opportunities

31. The Academy agrees that the revised Concordat should address the progression and promotion opportunities for researchers
32. Internal promotion criteria within academia should not act as unintended disincentives to researchers striving to reach their full career potential. Researchers engage in a wide range of activities, including, but not limited to teaching, public engagement, mentoring, peer review, collaboration with industry 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 valuable to the career development of researchers. Promotion criteria should value these activities.
33. For the Academy, recognition and appropriately valuing skills and experience gained outside of academia is greatly important, and so we particularly welcome principle 6, obligation 5: “present careers inside and outside of academic institutions as equal in status.” The updated language surrounding this, and presenting academic and industry careers as equal, represents a good improvement on the original Concordat. As recommended in the Dowling Review of Business-University Research Collaborations, 2015, universities need to ensure that recruitment and promotion criteria for relevant disciplines reward rather than penalise academics who have achieved excellence in translational and collaborative activities, and that these messages are communicated effectively.

Expectations of mobility

34. The Academy is undecided on whether the revised Concordat should address the expectation of mobility for researchers.
35. The expectation of geographical mobility is a structural challenge of the UK and global research system, and is not necessarily something that can, or should, be addressed through the Concordat. The Academy feels that a realistic approach for the

Concordat to take would be to acknowledge this expectation, and the huge equality, diversity and inclusion issues it is known to create, and to instead ensure it emphasises that UK progression and promotion opportunities should not over-prioritise geographic mobility. The focus should always be on the experience of a candidate, not where it was gained or how frequently they have moved around. The Concordat should be functioning at the level of career development, not at the structure of the UK and global research system.

36. In this instance, case studies of good practice would prove helpful, and the Academy would welcome further information on the particular issues surrounding geographical mobility.

Communication, dissemination and sharing practice

37. As per our answers in points 5 through 10, the Academy feels that greater awareness could be achieved by ensuring it is widely circulated, and easily accessible and available. Consideration should also be given on how to engage different stakeholders and audiences, and how existing structures could be mobilised – for example, by utilising the networks that postdoc societies represent. We agree with the point in recommendation 8, that “funders should require all PIs to be aware of the Concordat and ask them to communicate it to their research staff”.
38. Allowing and encouraging individual institutions to be signatories of the Concordat (as raised in point 43) could also help increase awareness and visibility.

Encouraging and facilitating good practice within the Academy

39. As a funder, we will consider our role in making our awardees aware of the Concordat. This will include the addition of the Concordat within the terms and conditions of our grants, highlighting it to awardees when appropriate and ensuring a visible presence on our website. Additionally, we will make assessment panels aware of the revised Concordat.

Encouraging and facilitating good practice within the Academy across the HE sector and learning from other sectors?

40. The collation of case studies of best practice compiled in the review are helpful in illustrating the variety of approaches and initiatives being implemented by different organisations.
41. Career development is embedded within researchers’ lives in industry, and the way this is set up is very different to higher education – there is great opportunity for cross-sector learning and so the Academy would encourage the revised Concordat to include greater numbers of case studies from industry, highlighting differences.

Governance

42. The Academy endorses recommendation 10, that broad representation on the Strategy Group is achieved. In addition, good links into the community should be built, and these networks frequently utilised to observe and assess how the revised Concordat is being implemented on the ground.
43. The Academy strongly agrees that individual institutions (as well as representative bodies) should be invited to be signatories of the revised Concordat.

Monitoring and review

Evaluating the implementation of the Concordat principles within the Academy

44. Occasional review by the relevant Academy governance structures, and ensuring the Academy representative on the Concordat strategy group is active and engaged.

Evaluating the implementation of the Concordat principles as a sector

45. The Academy endorses recommendation 9 on the collection of career data – for evaluation of implementation outcomes are of greater importance than processes. Ideally, some element of evaluation should be linked to awareness of the Concordat and the impressions researchers have of it, for example through surveying occurring now and in three years time.

Benchmarking

46. It would be helpful to be able to benchmark progress against others.
47. Light-touch benchmarking would be particularly useful for universities and employers in order for them to understand their position relative to others. This could be achieved through the examples detailed in our answer to question 33. In future, support for career development could be considered as part of the environment element of the REF.
48. The Academy believes that rigorous and potentially burdensome levels of assessment are not appropriate at this stage. We feel that the data collection and light-touch approach we suggest in points 45 and 47 would not prove an excessive burden, and represent useful foundations to assess what additional action should be taken in future.
49. As set out in points 24 through 27, the Concordat should be a stretching but realistic aspiration, rather than a rigidly enforced requirement. Any approach to benchmarking and implementation should reflect this.

Researcher career data

50. It is important to collect researcher career data at the organisational level and at UK level.
51. As set out in recommendation 8 of the review, further information is needed on short- and long-term career destinations of researchers. The Academy believes that any opportunity to collect data relating to this should be pursued, as having a greater understanding of what career routes researchers take and why is extremely valuable. It is impossible to assess the effectiveness of the Concordat if nothing is being measured.
52. The Academy are currently proposing to undertake retrospective long-term survey of the career paths of awardees it has supported over an extended period.

Final Comments

53. The Academy welcomes the recommendations of the review, and feels that much has been done to address changes and concerns raised. However, there are also some points not raised in the recommendations that we feel should be included which were detailed in our previous submission to the Consultation on the Concordat to Support the Career Development of Researchers (November 2017). These include:
 - a. 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.

- b. The Academy believes the Concordat should increase its emphasis on the importance of research integrity, while acknowledging that there is a separate Concordat to support research integrity.
- c. 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.