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1.0 Acknowledgements

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2.0 Executive summary

The aim of the toolkits is to address a noted gap in support for early career researchers (ECRs) and their managers. We welcome the considerable attention paid to the professional and career development of ECRs; however, we found less consensus on how managers can support ECRs, and how institutions can in turn support managers to work with ECRs.

We developed two toolkits to describe opportunities, activities and ideas that may be 1) used by managers to support the development and progression of ECRs directly, and 2) implemented at the institutional level to enable managers to optimize their support of ECRs. We did not develop the toolkits as checklists or to-do lists. Rather, they are to enable managers to work as a more effective pivot between institutions and ECRs in support of career development and progression. The toolkits are intended to be generalisable but we acknowledge that not all items will be relevant to all ECRs nor will they all be possible at all institutions.

The toolkits resulted from a desk review of university websites in the UK, a survey of Vitae members, and focus groups with early career researchers, managers of early career researchers, researcher developers, and research funders. We then sought feedback on the draft report from equality, diversity, and inclusion champions. We mapped the final toolkits to the Concordat to Support the Career Development of Researchers (Researcher Development Concordat) to facilitate implementation.

3.0 How to use the toolkits

3.1 What are the toolkits?

The aim of the toolkits is to address a noted gap in support for early career researchers (ECRs) and their managers. We welcome the considerable attention paid to the professional and career development of ECRs, with institutions frequently taking many steps to provide guidance and opportunities. However, we found less consensus on how managers can support ECRs, and how institutions can in turn support managers to work with ECRs. For example, the Culture, Employment and Development in Academic Research Survey¹ (CEDARS) found that 40% of researchers felt their managers did not support them to consider a wide range of future career options. These toolkits provide a framework for conversations and ideas to extend institutional support for managers of researchers, thereby enhancing and further embedding support for ECRs. The toolkits are a list of opportunities, activities and ideas that may be 1) used by managers to support the development and progression of ECRs directly, and 2) implemented at the institutional level to enable managers to optimize their support of ECRs.

The toolkits are intended to be aspirational and present a list of potential ways in which managers may work as a more effective pivot between institutions and ECRs in support of career development and progression. The toolkits are not checklists or to-do lists. In other words, they were not developed as a list of items which must be implemented by all managers and institutions. Indeed, it is acknowledged that career progression and development should not (and cannot) be addressed by a 'one-size-fits-all' approach.

3.2 Who are the toolkits for?

The first toolkit is intended to be used by managers of researchers. However, we acknowledge that managers work within the context of their institutions and have their own development needs and challenges. Therefore, the second toolkit provides opportunities, activities and ideas to enhance the institutional environment for the development and progression of ECRs, enabling managers of researchers to perform their responsibilities supported by other institutional stakeholders.

The toolkits could be used by a range of different groups, for example:

1. Managers of ECRs (those with professional responsibilities for ECRs) to:

- enhance their structured support of ECRs
- encourage equitable access to opportunities and activities across ECRs
- stimulate career development conversations with their researchers
- reflect on and demonstrate their professional development as a manager
- enable reflection on items to inform subsequent iterations of the toolkits

2. Institutional stakeholders (e.g. Researcher Developers, Careers Advisors, Human Resources, College, Faculty, School/Department Heads) to:

- assess institutional support of managers of ECRs
- inform training and resources for managers of ECRs
- monitor equity in access to opportunities and activities across ECRs
- include as part of induction materials for new managers of ECRs
- inform criteria for recognition and promotion
- include in supporting statements for grant applications
- inform action plans, e.g. for the HR Excellence in Research Award² and Researcher Development Concordat³

¹ www.vitae.ac.uk/cedars

² HR Excellence in Research Award https://www.vitae.ac.uk/policy/hr-excellence-in-research

³ Concordat to Support the Career Development of Researchers (Researcher Development Concordat) https://researcherdevelopmentconcordat.ac.uk/

3. Early career researchers (ECRs) to:

- advocate for equity in opportunities and activities across ECRs
- stimulate career development discussions with managers
- reflect on and prepare for their professional development as a manager

4. Research funders to:

- guide grant call criteria related to the support of ECRs on funded research programmes
- refine research assessment strategies to recognise and reward support of ECRs

3.3 The toolkits in practice

The toolkits present items that managers and institutions can do, but not how to do it. The 'how' will vary as different people in different contexts will take different approaches to achieve the same result.

Managers should consider in consultation with their ECRs which items may be relevant to them given their career stage, goals, and particular area of work. Managers should also consider and anticipate barriers that ECRs may face, especially in relation to gender, ethnicity, sexuality, caring responsibilities, disability, and the intersectionality of these and other protected characteristics and circumstances. The toolkits provide a starting point for managers, but the expectation is that institutions will provide further guidance and professional development, as illustrated in the toolkits.

To support institution-level implementation, the toolkits were mapped by Vitae to the Researcher Development Concordat and the corresponding HR Excellence in Research Award UK process. Through mapping of our toolkits to these processes, we hope they will be embedded in the sector as key components of Researcher Development Concordat action plans.

A filterable version of this mapping is available online to aid users searching for practices appropriate for specific obligations of the Concordat⁴.

There has been a strong interest from multiple stakeholders for action in this area. An ambition is that linking the toolkits to the Researcher Development Concordat and HR Excellence in Research Awards will encourage institutions to promote adoption amongst their managers of ECRs. In turn, we hope the toolkits will offer a contributing component to support change in how ECRs are managed, employed, and developed within supportive research environments.

As the toolkits become more widely used and embedded, institutions and managers are encouraged to celebrate and share examples of good practice through the publication of case studies in the Concordat Platform of Practice⁵ to enable shared learning and implementation of toolkit items.

- Toolkits to Enable Managers to Support the Development and Progression of Early Career Researchers https://vitae.ac.uk/toolkit-managers-careerdev-ECRs
- Concordat Platform of Practice https://concordatplatformofpractice.vitae.ac.uk/

4.0 Toolkit for managers to better support the development and progression of early career researchers

Type of practice or support	Specific activity, behaviour or process
Own Professional Development	➤ Take responsibility for engaging in professional role of managing/leading others
Own Professional Development	▶ Engage with training opportunities i.e., leadership and mentoring
Own Professional Development	➤ Take responsibility for developing own understanding of challenges facing ECRs, especially in how this overlaps with issues of equity, diversity and inclusion
Support job security	► Ensure you are aware of supportive contracting options available and the contract situation of ECRs you manage
Support job security	➤ Ensure you are informed on the challenges facing ECRs relating to their contracts, including how this may relate to individual identities and experiences
Support job security	 Request open ended contracts (compared with fixed term contracts) for ECR appointments you make at your institution
Support job security	Cost ECR visas (and visa extensions) into funding applications (directly or as part of unallocated funds) which you develop (as funding guidance allows)
Support job security	Review redeployment pool (where available) for potential candidates for new appointments which you plan to make
Support career planning	► Ensure ECRs are aware of career opportunities both within and beyond academia
Support career planning	Navigate ECRs to appropriate services e.g. career development services, for those interested in careers within and beyond academia
Support career planning	► Implement regular structured discussion of evolving career plans to enable each ECR to set goals by addressing the questions 'what do you want?', 'when do you want it by?' and 'which skills will you need?' (found in the Vitae Researcher Development Framework6)
Support career planning	► Ensure ECRs are working towards standards to take the next step in their careers e.g. requirements for successful fellowship application/promotion; transferrable skills for careers beyond academia
Support career planning	➤ Ensure annual performance development review does not replace regular structured discussion of evolving career plans
Support career planning	Support ECRs to obtain mentors relevant to their career aspirations who are independent from your research group, department, or institution (as available)
Support work-life balance	► Ensure you are aware of, and can act on, equity, diversity and inclusion policies at your institution
Support work-life balance	 Ensure you are aware of, and can act on, mental health and wellbeing support available at your institution

Type of practice or support	Specific activity, behaviour or process
Support work-life balance	Set (and abide by) expectations for a positive work-life balance e.g. add an email signature 'I do not expect you to respond to emails outside of your working hours'; or ensure ECRs are supported to complete contributions to outputs during their time on a project (and not expect contributions after they finish on a project)
Support work-life balance	Support ECRs to develop effective handover materials when transitioning between roles
Protect development time	➤ Protect ECRs time by enabling them to say no to opportunities which are not relevant to their career aspirations
Protect development time	Cost ECR career development time (as funding guidance allows) into funding applications which you develop
Protect development time	 Cost (time and fees) for ECR attendance at training and development opportunities into funding applications which you develop (as funding guidance allows)
Protect development time	➤ Ensure ECRs are allocated a minimum of 10 days pro rata per year for professional development
Enable Leadership	► Ensure all ECR contributions are acknowledged at institutional level, on funding feedback/reviews (e.g. ResearchFish), and externally facing resourcesw
Enable Leadership	Put ECRs forward for awards within and beyond your institution
Enable Leadership	Provide shared leadership opportunities relevant to the career aspirations of ECRs; e.g. co-delivery of teaching, lead on funding applications, line management, project management and risk mitigation, supervision of Masters dissertations, Chair/member of committee, inviting ECRs to attend meetings related to commercialisation (spin-out support, patent protection, intellectual property etc)
Enable Leadership	Provide opportunities for ECRs to be a named peer-reviewer of manuscripts and grant applications (as allowed by the journal/funding body)
Enable Leadership	► Enable ECRs to develop independent work related to the work of the larger group
Enable Leadership	▶ Support ECRs with personal/project grant management and risk mitigation
Enable Leadership	Support ECRs to lead public facing events e.g. public and patient involvement events, educational workshops, media engagements, policy engagement workshops
Enable Leadership	▶ Enable ECRs to articulate leadership as an output
Enable Networks	► Enable ECRs to invite researchers external to your group to contribute to work they are leading (with manager's agreement)
Enable Networks	▶ Enable ECRs to present work at internal and external facing events

Type of practice or support		Specific activity, behaviour or process
Enable Networks	•	Promote ECRs by name when meeting with collaborators and propose to engage them with forthcoming work
Enable Networks		Consider visiting researcher opportunities for ECRs (e.g. ECR swap with a collaborator in a different institution, secondments to industry or policy settings)
Enable Networks	•	Support work shadowing opportunities in other sectors, such as industry and charities
Enable Networks		Support ECRs to generate an up-to-date online presence with keywords for areas of expertise via university websites, social media, etc
Enable Networks	•	Enable ECRs to establish peer networks within and across institutions
Enable Networks		Support ECRs to apply for funding to support travel and networking
Enable Authorship	•	Ensure all ECRs are working towards a publication with a prominent authorship position
Enable Authorship		Provide ECRs with opportunities to contribute to additional publications inside or beyond your research group
Enable Authorship	•	Enable ECRs to submit their work to reputable open access journals (where possible)
Enable Authorship		Provide ECRs with opportunities to contribute as an author on outputs such as open data sets, software, patents, commercial, entrepreneurial or industrial products, clinical practice developments, educational products, policy reports, and conference presentations.
Enable Authorship	•	Ensure transparency of authorship assignment (awarding acknowledgement based on input and not seniority)
Enable Authorship	•	Provide ECRs with regular feedback on writing style
Enable Authorship	•	Support ECR attendance at writing retreats/workshops
Enable Funding		Identify funding opportunities that are an appropriate next step for ECRs to target (if relevant to their career aspirations)
Enable Funding	•	Provide structured support to prepare a fellowship application if relevant to their career aspirations
Enable Funding		Support ECRs to apply as lead investigator for small funding awards to support work of the larger group e.g. to support a conference presentation (if relevant to their career aspirations)
Enable Funding	•	Support ECRs to apply as lead investigator for seed funding for small projects related to the work of the larger group (if relevant to their career aspirations)
Enable Funding	•	Provide opportunities for ECRs to draft components of a grant application as a named co-applicant, researcher co-investigator, collaborator (if relevant to their career aspirations)

Type of practice or support		Specific activity, behaviour or process
- The or practice of Support		
Enable Teaching		Support ECRs to deliver teaching relevant to their career aspirations (if available at your institution)
Enable Teaching		Enable ECRs to complete relevant teacher training and formal accreditation (if available at your institution and if relevant to their career aspirations)
Enable Teaching	>	Create opportunities for Masters dissertations and PhD candidates under your supervision to be supported by an ECR as a 2nd/3rd supervisor
Enable Teaching	>	Provide opportunities for ECRs to join PhD thesis progression committees
Support ECRs outside of your team	•	Act as an independent mentor for ECRs from outside your group, department and/or institution
Support ECRs outside of your team		Consider visiting researcher opportunities for ECRs e.g. ECR swap with a collaborator in a different institution
Support ECRs outside of your team	•	Provide opportunities for ECRs from outside your group to contribute to publications (in consultation with their manager)
Support ECRs outside of your team	•	Provide opportunities for ECRs outside your group to contribute to a grant application as a named co-applicant or collaborator if funding does not allow (in consultation with their manager)
Support ECRs outside of your team	•	Offer feedback on applications developed by ECRs outside of your group
Support ECRs outside of your team		Volunteer to support ECR mock interview panels for ECRs outside of your group
Support ECRs outside of your team		Invite ECRs from outside your group to join a PhD panel as a 3rd supervisor (in consultation with their manager)
Support ECRs outside of your team		Invite ECRs from outside your group to join a PhD thesis progression committee (in consultation with their manager)
Support ECRs outside of your team		Protect ECRs' time by considering whether 'opportunities' you are offering are relevant to the ECR's career aspirations

5.0 Toolkit for institutions to better support managers of early career researchers

5.1 College/university level implementation

Type of practice or support	Specific activity, hebayious or process
Type of practice or support	Specific activity, behaviour or process
Enable Leadership	Offer leadership training relevant to career stages
Enable Leadership	 Offer training and clear guidance on supporting ECRs to manage their careers
Enable Leadership	Offer training and clear guidance on hiring ECRs and contract options
Enable Leadership	 Offer training and clear guidance on management and expectations for ECR development time
Enable Leadership	Offer training and clear guidance on management relating to wellbeing and mental health
Enable Leadership	 Offer training on having sensitive or difficult conversations with ECRs with particular reference to the context of precarious careers
Enable Leadership	Offer 360-degree feedback on management
Enable Leadership	Consider implementing mandatory leadership training for new managers which is linked to probation
Enable Mentoring	Offer training on mentoring and/or coaching
Recognise Best Practice	Reward mentoring as part of probation and promotion
Recognise Best Practice	Reward ECR retention and/or progression as part of probation and promotion
Enable Parity in Contributions	Navigate managers to information on how authorship should be assigned (emphasising the need to acknowledge contributions of ECRs in a similar way to those of senior academics)
Enable Parity in Opportunities	► Ensure training opportunities are accompanied by continuous professional development credits to enable managers with split-contracts to attend e.g. clinical academics
Enable Parity in Opportunities	 Offer training and clear guidance on management in the context of equality, diversity and inclusion
Enable Parity in Opportunities	Consider whether an ECR has access to external funding through their manager as part of the review process for smaller internal funding calls e.g. conference bursaries
Enable Parity in Opportunities	Set a requirement that ECRs should be a co-lead on applications for larger internal funding e.g. seed funding
Enable Parity in Opportunities	Consider whether an ECR has access to external funding through their manager as part of the review process for smaller internal funding calls e.g. conference bursaries
Enable Parity in Opportunities	▶ Remove barriers to ECR involvement as co-applicants in grants if the grant duration extends beyond their contract end date i.e., support part-time contracts to enable ongoing involvement beyond current contract end date
Enable Parity in Opportunities	Lobby funders for higher spend limits to enable managers to cost ECR development time into grant applications

Type of practice or support	Specific activity, behaviour or process
Enable Parity in Opportunities	 Provide structured ECR redeployment schemes and promote advertising new posts to ECRs seeking redeployment by hiring managers
Enable Parity in Opportunities	Provide ECR bridge funding for managers who have a gap between two externally funded projects and an ECR in place on the earlier project
Enable Parity in Opportunities	Set requirement for PhD supervisory panels to include an ECR as a 3rd supervisor
Provide Resources	Provide supportive and decisive human resource processes by optimising contract options or developing effective redeployment processes
Provide Resources	▶ Provide career advisory service that managers can refer ECRs to
Provide Resources	► Ensure transparency related to ECR progression requirements to enable managers to have meaningful career plan discussions
Provide Resources	➤ Provide templates for individual development plan (that travels with ECRs when they move post) to enable career plan discussions, which incorporates skills and competencies found in the Vitae Researcher Development Framework
Enable Innovation	Support managers who wish to pilot innovative ideas to support ECRs on their research teams e.g. ECR swap with ECRs at other institutions

5.2 Faculty level implementation

Type of practice or support	Specific activity, behaviour or process
Enable Leadership	 Support managers interested in formal training schemes such as the Academic Professional Apprenticeship
Enable Mentoring	Offer all managers a mentor with an explicit remit which includes supporting the management of ECRs. Mentors should reflect the managers' needs and may be a peer/senior academic mentor, a professional services mentor or in another profession
Enable Mentoring	Establish manager peer support groups relevant to career stages with standing agenda item of mechanisms to support ECRs
Enable Mentoring	 Establish formal ECR mentoring schemes with a requirement for incoming managers to enrol
Recognise Best Practice	ldentify and publicise case studies of good ECR management practice
Enable Parity in Opportunities	Set requirement for Department Lead for Research Culture (or integration within Lead for Equality Diversity and Inclusion) inclusive of role in prioritising and monitoring support of the development and progression of ECRs
Enable Parity in Opportunities	 Collate internal and external funding opportunities for ECRs and circulate direct to managers as well as ECRs
Enable Parity in Opportunities	Consider whether an ECR has access to external funding through their manager as part of the review process for smaller internal funding calls e.g. conference bursaries
Enable Parity in Opportunities	Set a requirement that managers consider involvement of ECRs as co- applicants (or collaborators if funding will not permit) in external funding bids as part of grant development process
Enable Parity in Opportunities	Provide ECR bridge funding for managers who have a gap between two externally funded projects and an ECR in place on the earlier project
Enable Innovation	Support managers who wish to pilot innovative ideas to support ECRs on their research teams e.g. ECR swap with ECRs at other institutions

5.3 School/departmental level implementation

Type of practice or support	Specific activity, behaviour or process
Enable Leadership	Enable managers to shadow others to develop their leadership style e.g. co-chair committees
Enable Mentoring	Hold regular meetings of managers with standing agenda item of mechanisms to support ECRs
Recognise Best Practice	Include 'ECR support' (inclusive of relevant manager training) as part of manager performance review
Recognise Best Practice	ldentify and publicise case studies of good ECR management practice
Enable Parity in Contributions	Set a requirement that ECR involvement in grant development is appropriately acknowledged by managers through co-applicant/ collaborator role, and on public facing websites (project and staff pages)
Enable Parity in Contributions	Provide feedback on draft funding bids with respect to ECR involvement (e.g. opportunities for current ECRs as collaborators, or proposed ECR development plans)
Enable Parity in Opportunities	Appoint Department Lead for Research Culture (or integrate within Lead for Equality Diversity and Inclusion) inclusive of role in prioritising the development and progression of ECRs
Enable Parity in Opportunities	Consider whether an ECR has access to external funding through their manager as part of the review process for smaller internal funding calls e.g. conference bursaries
Enable Parity in Opportunities	Set a requirement that managers consider involvement of ECRs as co- applicants (or collaborators if funding will not permit) in external funding bids as part of grant development process
Enable Parity in Opportunities	▶ Review PhD applications for ECR involvement in supervisory panel / thesis progression committee
Provide Resources	Provide clear access to training opportunities for supporting ECRs as part of manager induction checklist and via regular communications thereafter
Provide Resources	Navigate new managers to the managers toolkit and template for career plan discussions (which may include individual development plans, highlighting their strengths to build on, and goal setting)
Provide Resources	Support networking among managers and ECRs to stimulate collaboration outside of immediate research groups
Provide Resources	 Establish mechanisms for managers to feedback on funding applications developed by ECRs outside of their group
Monitor	Ensure oversight of the development and progression of ECRs overall and with respect to protected characteristics by the Department Lead for Research Culture (or integrated role within Lead for Equality, Diversity and Inclusion)

Type of practice or support		Specific activity, behaviour or process
Monitor	•	Monitor time ECRs are supported to pursue independent work (related to the work of the larger team) and discuss with manager during performance review if further time is needed
Monitor		Monitor ECR teaching hours and address through discussion with manager during performance review if limited/excessive
Monitor		Monitor manager enrolment in formal mentoring schemes (as mentor and mentee) through performance review and set target for forthcoming year if not engaged
Monitor	•	Monitor costing of ECR career development time into funding applications (as funding guidance allows)
Monitor	•	Monitor whether ECR support promised in funding bids is being implemented
Enable Innovation	•	Support managers who wish to pilot innovative ideas to support ECRs on their research teams e.g. ECR swap with ECRs at other institutions

6.0 Project background

6.1 Rationale for the project

Institutional plans in response to the Concordat to Support the Career Development of Researchers often include opportunities for mentoring, training, and secondments. While beneficial, the Researcher Development Concordat challenges signatories and all stakeholders to go further towards addressing the structural pressures, such as insecurity of employment, that can be experienced differently, especially in relation to gender, ethnicity, sexuality, caring responsibilities, disability, and the intersectionality of these and other protected characteristics and circumstances. Indeed, ECRs are encouraged to 'take ownership of their career' within the context of multi-stakeholder actions, including by funders, institutions and, significantly, by managers.

There is currently limited guidance or formal responsibility for managers to facilitate professional development opportunities for ECRs. Action is needed to support managers better in being aware of and fulfilling their roles in response to structural factors shaping ECR development and career progression.

The absence of guidance to manage ECRs fosters uncertainty among managers as to what is feasible when supporting the ECR staff they work with. For example, whether ECRs whose contracts are close to expiry can be co-investigator on applications, or whether ECRs can be members of a PhD thesis progression committee. This is despite the common assumption that ECR managers are an effective pivot between institutional initiatives to support ECRs and ECRs themselves. These uncertainties contribute to inconsistencies across managers (within and across institutions) in how they are supporting ECRs, resulting in inequities of opportunities for ECRs. Uncertainties may be more acutely experienced by new managers who are often moving from working on precarious contracts to offering precarious contracts to research staff.

The Culture, Employment and Development in Academic Research Survey (CEDARS) illustrates the gaps in support for managers, and consequently for their ECRs. For example, two out of three researchers are not having regular career development reviews with their managers, though for those who are, 75% say they are useful. Only one in eight researchers are taking up 10 or more days of continuing professional development per year, and one in four do not feel supported towards promotion opportunities by their manager. Further, half of managers do not feel confident in providing guidance on redeployment.

The toolkits will contribute positively to supportive research environments by empowering managers to best support ECRs in their professional development and career progression. This will be achieved by providing managers with a synthesized collection of exciting initiatives to enable them to better champion career development and progression of the ECRs they work with. Further, it will enable managers to lobby for change to better support ECRs within their institutions by raising awareness of good practice elsewhere.

By providing a focus for these wide-ranging debates, the toolkits will also ensure that ongoing conversations in this area continues to develop and engage with new challenges.

6.2 Aim of the project

The aim of this project was to develop and pilot toolkits targeting ECR managers (who may themselves be ECRs) and institutions to better understand and champion a wide range of opportunities and activities available to support the development and progression of ECRs. As a key feature, the aim was to generate toolkits which are generalisable to all UK institutions, enabling all UK managers to better support ECRs.

7.0 Creating the toolkits

7.1 Evidence synthesis

Initiatives (e.g. policies, processes, behaviours and activities) that managers can take, or that institutions can take to support managers, were identified following a desk review of websites for all UK university listed by the Times Higher Education (n = 166), a focus group with researcher developers (n = 30) at Vitae Connections Week 2021, a series of focus groups with researchers and managers of ECRs (n = 43) at the UKRI Future Leaders Fellows annual conference 2021, and a survey of researcher developers and managers circulated by Vitae November-December 2021. The initiatives were assessed for relevancy by one ECR manager. Relevant/not-relevant assignments were then checked by a second ECR manager for accuracy. Discrepancies were resolved by consensus. Relevant initiatives were subsequently collated in groups of related initiatives to generate the first draft of the toolkits.

7.2 Stakeholder input

The project proposal was designed in collaboration with the local Equality, Diversity and Inclusion committee.

A series of stakeholder focus groups were held to generate feedback on the draft toolkits to enable further refinement and establish mutually agreeable actions to enhance their uptake. Participation of minoritized groups in all focus groups was encouraged to inform toolkits development. Stakeholders were asked to provide their initial impressions, whether any items were missing, and whether they would use the toolkits in practice. Stakeholders included ECRs, managers of ECRs, researcher developers, and research funders. The focus groups were 90 minutes in duration and included between 4 and 10 participants.

The toolkits were refined following each focus group until all stakeholders had contributed their feedback and a finalized draft of the toolkits was established, which was then reviewed by equality, diversity and inclusion champions.

The toolkits were subsequently mapped by Vitae to the Researcher Development Concordat to facilitate implementation through Researcher Development Concordat action plans and the HR Excellence in Research Award.

7.4 Next steps for the project and future sustainability

The toolkits will be piloted for implementation at Kings College London from May 2022. We will monitor use and uptake of the toolkits at Kings College London, which will include an understanding of equity and involvement. The toolkits will also be assessed for feasibility of implementation at three additional institutions, namely the London School of Hygiene and Tropical Medicine, University of Central Lancashire, and Heriot-Watt University. Assessment will include stakeholder views, costs, and impacts.

The toolkits present items that managers and institutions can do, but not how to do it. The 'how' will vary as different people in different contexts will take different approaches to achieve the same result. We also recognise that, in some cases, items listed may not be a gap in practice, but a gap in visibility of the practice. Institutions and managers are encouraged to share, celebrate and build on the good practice that already exists and that is created as a result of the toolkits, for example, through the publication of case studies in the Researcher Development Concordat Platform of Practice⁷ to enable shared learning and implementation of toolkit items. Future iterations of these toolkits may include direct mapping to examples of practice.

Finally, we did not include funder guidelines in our desk review. However, many funders provide exciting suggestions on how to support the development and progression of ECRs through grant funded work. Future iterations of the toolkits may wish to extend the review to include these initiatives.

