



## **Doctoral training in the arts and humanities:**

## **Engagement, review and future options**

Project final report

**For the Arts & Humanities Research Council**

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# Executive summary

## Background, aims and approach

CRAC-Vitae was commissioned in 2021 by the Arts & Humanities Research Council (AHRC) to undertake a review and engagement exercise to inform its thinking around the future of doctoral provision in the arts and humanities (A&H). Proportionally, AHRC spends a higher percentage of its budget than other Research Councils on doctoral support, but its modest overall budget is comparatively small in relation to the size of the community for which it has responsibility. AHRC currently funds around 1 in 6 of all A&H doctoral students (PGRs - postgraduate researchers) at UK universities, making it the largest such funder.

AHRC needs to maximise the value it adds to A&H doctoral education through its support mechanisms. To do so in future, this project considered how well its current models of support for doctoral research have been working and sought to understand how the context for doctoral provision will change over the next 10 years, including future needs of students and of employers within and beyond academia.

A series of evidence-gathering activities were undertaken in the project, engaging a wide range of stakeholders to create a platform of evidence with which to develop options for future investment in doctoral provision by AHRC. In Stage 1, 12 scoping interviews with key stakeholders and a Rapid Evidence Assessment (REA) of existing literature were used to develop themes and topics of enquiry. Stage 2, conducted in early 2022, comprised 12 roundtable events, stratified to engage different stakeholder types and environments, together with a survey of HE institutions to elicit strategic perspectives from senior A&H staff, and a survey of current A&H PGRs. In all these strands of activity, representatives with and without current AHRC doctoral funding were explicitly included. 86 individuals took part in interviews or roundtables, reflecting a wide range of institutional, disciplinary and occupational contexts. 40 universities provided full responses to the institutional survey and 317 current PGRs full responses to the student survey. Underpinning these primary research activities, analysis of HESA Graduate Outcomes survey data was undertaken to establish outcomes for recent A&H doctoral graduates.

Evidence from Stage 1 and 2 activities was collated and the key findings are reported here, and in more detail in the Appendices that support this report. In Stage 3, options for AHRC's future investment in doctoral support were developed, tested against a range of scenarios (that were created to illustrate different potential future employment and research contexts), and validated with stakeholders in two further roundtables. The final sections of this report illustrate how various combinations of elements of investment could be appropriate as options to support different strategic priorities for AHRC.

## Current and future role of AHRC

There was universal agreement from stakeholders consulted that AHRC provides a crucial part of total A&H doctoral funding and should remain a direct funder of studentships through the doctoral programmes it supports.

AHRC's doctoral programmes were seen as market-leading in terms of extent of funding and the training offer, attracting high-calibre PGRs and setting a gold standard to which other funders aspire. That leadership role should continue. AHRC was seen as responsible for much

recent growth in collaborative doctoral provision with external (non-HE) organisations, which was seen as highly valuable and should continue.

As it has the opportunity to position its funding strategically, to sustain national research capacity and culture, AHRC's role is critical to the health of the disciplines, although its current strategic intentions were not fully clear to some. Many stakeholders thought its role as an advocate for the value of A&H research was crucial, but sought more assertive action in that role, not only fighting the A&H corner but potential advocating for the value that A&H researchers could bring to the interdisciplinary research approaches that will be necessary to address global and societal challenges.

The area most commonly identified by stakeholders when thinking about AHRC's important future roles was to facilitate wider access to and participation in A&H doctoral study, reflecting perceptions that relatively little progress has been made overall to date in enhancing equality, diversity and inclusion (EDI) in its doctoral programmes.

## **Future contexts and needs**

Through inputs from stakeholders and secondary research, a range of trends in the wider landscape of employment were identified, including shifts to more widespread remote, hybrid and flexible working. Individuals' careers in future were expected to feature more common job changes, more occupational and sector shifts, more portfolio and part-time working, taking place throughout a longer working life. Continued upskilling, including in skills areas such as digital, would be needed throughout those extended working careers.

It is widely anticipated that the A&H research funding environment will continue to be constrained in future, or become even more so, not least given recent AHRC budget settlements and the rising costs of living. UKRI's aspiration for a 'New deal for postgraduate research' includes focus on doctoral student rights and conditions, as well as funding and financial support,<sup>1</sup> which may also influence how doctoral funding is deployed. More broadly, the research environment will not be immune to the trends in relation to work identified above, with expected growth in remote collaborations, opening up the possibility of more interest- or specialism-based partnerships rather than locality-based. Interdisciplinary research designed to address major societal challenges, and innovation- and impact-focused research, would grow in proportion, and A&H researchers need to play their part, bringing distinctive approaches and mindsets to cross-disciplinary teams. As Generation Z begin to form a substantial portion of the research workforce, support for them will need to become more individualised and flexibly delivered in response to their higher expectations and the increasing diversity of researchers' backgrounds and circumstances.

Changes to the world of employment and research will require A&H doctoral graduates to be better equipped with an evolving range of skills to thrive in their research and forge careers within or outside academia. Most occupations are expected to require a wide range of transversal skills, with the importance of intercultural competencies, teamworking and collaboration, public engagement and commercial acumen rising. There was evidence of some mis-alignment between the skills that current PGRs think are important for future careers and those that are most valued by employers. A range of forward-looking research-related skills, such as specialised digital techniques, in addition to wider digital and data literacy, will need to be developed, in addition to enhanced creativity and consideration of impact. A&H

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<sup>1</sup> <https://www.ukri.org/what-we-offer/developing-people-and-skills/new-deal-for-postgraduate-research/>

researchers will need to articulate their skills and the relevance of them better. That said, many stakeholders recognised that A&H researchers do have certain skills and attributes, including the ability to bring fresh approaches to problems, and how to work with ambiguity and to switch mindsets, that are distinctive and potentially valuable in future research collaborations.

## **Strengths, weaknesses and value of current AHRC programmes**

AHRC's collaborative, cohort-based models were widely acknowledged to have benefits for the PGRs of higher-quality supervision, greater peer support and a much wider range of developmental opportunities, than 'traditional' programmes, in addition to the inherent benefit of a fully-funded studentship which enables many to access doctoral study in the first place. Most PGRs on these programmes benefited from supervisory teams across partner institutions. There was evidence from current PGRs that isolation and loneliness were more common and widespread amongst those who were self-funded than those in AHRC-funded cohorts (such as within DTPs), many of whom appreciated the benefits of peer support, networking and collegiality.

All stakeholders saw the potential career and employability impacts that participation in developmental and training opportunities could bring, and there was evidence that higher proportions of PGRs on AHRC programmes than others were accessing training in key skills areas, some of which was provided through the DTP and not the institution. Opportunities to engage with external employers, such as through a placement, were seen as highly valuable to develop employability and understanding of non-HE research and work cultures. The CDP model was identified as especially valuable for this purpose, enabling immersion of the PGR in such a culture – which made them highly employable. A CDP award could also generate a strategically critical mass of research for the host organisation and enhance its research culture significantly.

The most prominent weaknesses were seen as inequities of participation – for both institutions and students. There were widespread perceptions of two tiers of institutions, the first with AHRC funding and the second tier locked out and unable to access it. Concentration of funding within the DTP model had led to certain large institutions dominating some partnerships, with smaller partners competing for meaningful participation. At the same time, the DTP model was seen as expensive – with the costs of administration and management thought to be challenging its sustainability, so more cost-effective ways of delivering the highly valuable DTP 'wrapper' around a studentship need to be considered.

Individual PGRs appreciated great personal benefit through the additional opportunities available to them if they were in an AHRC-funded programme, as well as the peer support of their cohort and some perceived prestige in having such an award. These were aside from the crucial benefit of having full funding for their doctoral study. They perceived that they were in the top tier of PGRs, while others and especially self-funders were in lower tiers in terms of their circumstances and opportunities.

There were near-ubiquitous views that the diversity of A&H PGR cohorts, and AHRC-funded cohorts especially, was insufficient, and that the current dominantly full-time doctoral programme models hindered access for some types of prospective PGR, including mature individuals in employment seeking part-time study. Although some institutions were now seeking to develop and implement more inclusive ways to select PGRs, it was felt that AHRC programmes were not at the forefront of such innovation, nor attracted the greatest diversity of applicants.

The issue of whether the PGR stipend is high enough was repeatedly raised but we considered this to be in the scope of the wider ‘New deal for postgraduate research’ consultation rather than this project. Another issue that arose - potentially for that wider consideration – was whether the current PGR model is too ‘high risk’ with success being exclusively achieved through a largely traditional thesis examination process right at the end of the programme. Some way to recognise skills and competences developed during the programme (which are not assessed formally in thesis examination) would seem beneficial given the importance of these to funders and employers, and reduce perceived risks of failure by prospective PGRs.

AHRC’s funding of doctoral programmes was considered to be valuable in a variety of ways: increasing the total number of A&H PGRs, bringing the potential for more strategic impact of that funding (such as for the health of the disciplines, or to address other strategic priorities, such as more interdisciplinary research, or enhanced diversity or inclusion), and as the market leader setting the gold standard of provision to which other funders aspire. Funded institutions perceived indirect benefits too, believing the prestige of having AHRC funding (and/or leading a DTP) enhanced their reputation to attract PGRs and academic staff, increased their overall research capacity, and improved their training and development offer to PGRs. Relationships fostered through co-supervision arrangements could develop into deeper and wider-ranging research collaborations. Representatives of institutions without such funding were universally keen to obtain it somehow.

## **Principles for implementation of future programmes**

Consideration of the views expressed about existing programmes, and of how they should ideally evolve in future, led us to develop a series of potential principles for AHRC to apply in its design and implementation of future doctoral provision:

- All AHRC-funded doctoral training would be through cohort-based models;
- All AHRC-funded models would incorporate collaboration – so that PGRs can experience a range of academic and other environments;
- Wherever possible, those models would include active participation of non-academic partners so the PGR can benefit from as much ‘external’ exposure as possible (through external supervision, undertaking a placement, training/development opportunities etc.);
- Subject to any broader ‘harmonisation’ context, there should be consistency in the duration and value of the stipend within AHRC doctoral funding and any match-funded institutional stipends – with AHRC acting as a leader in such standardisation;
- The extent of flexibility in mode of study would be greater than now, ideally a continuum between full-time study and ‘very’ part-time, rather than a binary choice, with the ability for PGRs to adjust their mode of study as much as necessary as their circumstances change;
- The extent of flexibility/personalisation in provision would increase – e.g. offering personalised training programmes, taking into account personal career trajectories, including making both remote and in-person study/training options accessible to all PGRs, including those also working while undertaking a doctoral programme;
- EDI considerations would be fore-fronted in access to, delivery and outcomes of doctoral programmes. The definition of ‘excellence’ would extend beyond academic excellence to

recognise the potential of applicants who have travelled less traditional routes into doctoral education;

- As a condition of funding, AHRC could require institutions to open up professional development provision within AHRC-funded doctoral programmes to all A&H PGRs in their consortium institutions, e.g. through allocation of matched funding or additional sources of funding, thereby providing equality of access to provision to all A&H PGRs within an institution irrespective of their funding, or lack of it.

## Options for future investment

A range of key elements for investment were identified – different models of doctoral programme and several cross-cutting initiatives – that comprise the future options. These can be considered to be of two main types, doctoral programmes and cross-cutting investments.

### • Doctoral programmes

- **Collaborative Doctoral Partnerships.** Expansion of provision through which cohorts of PGRs are hosted by external (non-HE) organisations, immersed in that environment to develop relevant skills and cultural understanding, which evidence suggests leads to improved employability and intersectoral mobility as well as enhanced research and capacity for the organisation.
- **Doctoral Training Partnerships.** Currently AHRC's largest doctoral programme model, mostly delivered by regional consortia of HE institutions with some degree of partnership with external organisations. The DTP model is widely regarded to have great strengths, albeit expensive per studentship. In future the model could be flexed to emphasise particular strategic priorities of AHRC, such as to increase interdisciplinary research or enhance EDI. It will be critical also to enable a wider range of institutions to participate than currently.
- **Cross-Council Programmes.** In response to the expectation that A&H researchers should play a bigger role (than now) in tackling global and societal challenges requiring multi-disciplinary and team-based research, it is anticipated that AHRC would partner with other Research Councils to develop and participate in ground-breaking, cross-disciplinary doctoral programme/s. These would be designed to forefront the distinctive roles that A&H researchers can play in interdisciplinary teams and approaches.

### • Cross-cutting investment strands

- **Additional individual student support.** This would be a direct response to recognition that enhancement of the diversity of doctoral cohorts is overdue and crucial for the future. PGRs in certain circumstances (e.g. with a family to support) can struggle to cope financially, even when fully-funded. This may limit the range of prospective PGRs who can commit to undertake doctoral research. Through a mechanism yet to be determined, this investment would be in provision of supplemental support funding for individuals on a needs basis, to increase and sustain access to doctoral study.
- **Expanding external partner engagement.** Noting the value of models where a PGR is fully immersed in an external organisation, such as a CDP programme, this investment would be targeted to widen the range of external organisations able to engage in such AHRC doctoral programmes, as the current cost of entry is relatively

high and limits engagement to a small and relatively narrow range of large organisations or consortia.

- **Advocating for the value of A&H research and researchers.** AHRC would ramp up its role in advocating for the value of the A&H disciplines, research and researchers, including more assertively demonstrating the distinctive role A&H researchers can play in collaborative tackling of major societal challenges. For clarity, this would mean diverting some money currently used for doctoral programmes to fund new advocacy resources and activities.
- **Building national capacity for research and related skills.** Current doctoral provision lacks sufficient capacity to provide researchers across the country with access to development of certain key technical research and related skills. Given the diversity of disciplines and approaches, institutions cannot be expected to provide all the developmental opportunities and facilities to meet every local or regional demand. This investment would support a small number of national 'centres' (which could be networks or hubs) which develop critical 'in-demand' research-related skills needed by A&H researchers at all levels (e.g. digital humanities skills, qualitative research methods, innovation-related creativity, interdisciplinary collaborations), which are open to all A&H doctoral students, irrespective of funding.

We envisage options for AHRC's future doctoral support to comprise different combinations (balances) of these elements for investment. The balance between the proportions of each element would be determined to support AHRC's strategic priorities; i.e. if EDI was the top priority, the extent of investment in the cross-cutting element supporting researcher needs would be larger, or if the creative economy were prioritised, investment in the CDP model would be enhanced etc. In the report we illustrate a range of such potential combinations, each in response to a potential strategic priority. In practice, AHRC will not have a single strategic priority, but will wish to select an appropriate combination of elements which reflects the balance of its strategic priorities.

# 1 Introduction and context

## 1.1 Background

CRAC-Vitae, supported by RAND Europe, was commissioned in 2021 by the Arts & Humanities Research Council (AHRC) to undertake a review and engagement exercise to inform its thinking around the future of doctoral provision in the arts and humanities (A&H). AHRC is deeply committed to doctoral training and securing the future of the next generation of A&H researchers. Part of UK Research and Innovation (UKRI), AHRC currently spends approximately one third of its budget on support for doctoral activity which, proportionally, is higher than other Research Councils, which allocate higher proportions of their (larger) core budgets to research grant funding. AHRC's overall budget is comparatively small in relation to the size of the community for which it has responsibility; it currently funds around 1 in 6 of all A&H doctoral students at UK universities. It is widely appreciated that AHRC needs to maximise the value added to A&H doctoral education through its support mechanisms.

In order to optimise that support for doctoral provision and training in future, AHRC wanted to consider how well its current models of support for doctoral research have been working and, particularly, understand how the context for doctoral provision is likely to change over the next 10 years, including the future needs of students and employers both within and beyond academia. With a firm base of such understanding, AHRC will be in a stronger position to consider how best to direct its future support for doctoral provision in the arts and humanities.

This is the final report of CRAC/Vitae's assignment, accompanied by a series of Appendices containing evidence obtained during different strands of this project. We hope that our findings will help AHRC identify the best way to prioritise its future funding to provide the best possible support for doctoral study, while effectively facilitating the development of doctoral graduate careers and also adapting to the changing needs of the diverse sectors invested in A&H research and training.

## 1.2 Aims

The primary aims of this project were to undertake a series of evidence-gathering activities, including a wide-ranging engagement exercise, and from these to develop a platform of evidence with which to develop options for future doctoral provision by AHRC. More specific intentions were:

- To understand the current and recent landscapes of A&H doctoral research and training, from evidence collected by different methods including engagement of a wide range of stakeholders;
- To use that engagement and evidence to review and reflect upon strengths and weaknesses of current provision and AHRC's wider roles;
- To consider the future needs of stakeholders including the knowledge, skills and expertise that future doctoral graduates will need to equip them for careers in 2030 and beyond;
- To develop a realistic range of options for the AHRC to consider for its future funding and support of doctoral provision that will achieve its aspirations taking account of the evolving research, employment and societal landscape.

The objective in identifying such options is to assist AHRC to maximise the value of its future investment in support for doctoral research and training and ensure that the doctoral provision that it does support fulfils the following aspirations:

- Provision will attract and retain a diverse range of high-quality candidates from all backgrounds;
- Prospective doctoral students will actively seek AHRC doctoral funding because of the research, training and development opportunities provided which will support their future career development;
- Employers in academia and beyond will seek to employ AHRC-funded doctoral graduates for the high levels of knowledge, skills and expertise that they can bring;
- AHRC's models for doctoral training will be adopted more widely and contribute to building a thriving, diverse and inclusive research and innovation system that gives everyone the opportunity to contribute and benefit, enriching lives locally, nationally and internationally.

## 1.2 Approach

Figure 1.1 illustrates the four broad stages within the project and associated work packages. We acknowledge the guidance and support of the project's Advisory Group which first met in August 2021, at the start of the project, and reviewed progress after each project stage.

Stage 1 comprised three work packages. WP-1A was a series of 12 interviews with a range of stakeholders in order to develop a baseline of understanding about key issues which helped to refine and confirm the project scope. WP-1B was a review of existing literature through a Rapid Evidence Assessment (REA), undertaken by RAND Europe but building on the knowledge within CRAC's team through Vitae's experience in researcher and doctoral training and development. WP-1C, in parallel, was a new analysis of the latest available HESA<sup>2</sup> Graduate Outcomes survey data for doctoral graduates, to establish insights into their employment outcomes and the extent and ways in which doctoral study was impacting upon their early careers. Evidence from these work packages was presented to AHRC in a first interim report in November 2021.

Stage 2 comprised the main engagement activities within the project, designed to draw in views and evidence from a wide range of stakeholders. These included WP-2A, seen as the heart of the project, which was a stratified series of 12 online roundtable events with a range of different audiences, held during the period February to April 2022. Details of the number and range of participants engaged in these groups, and a summary of the evidence obtained, are provided in Appendix 4. WP-2B was an online survey of UK higher education (HE) institutions engaged in doctoral provision in A&H subjects, with and without current AHRC funding, in order to obtain institutional perspectives about current provision, future expectations and strategies relating to A&H doctoral education. Results from this survey are presented in Appendix 2. WP-2C was an online survey of current doctoral students, who are referred to using the acronym PGR (postgraduate researcher) in this report. Respondents included current PGRs with and without AHRC funding and across a variety of types of doctoral programme. Survey results and statistics are presented in Appendix 3. A second interim report in April 2022 summarised findings from the Stage 2 activities.

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<sup>2</sup> Higher Education Statistics Agency

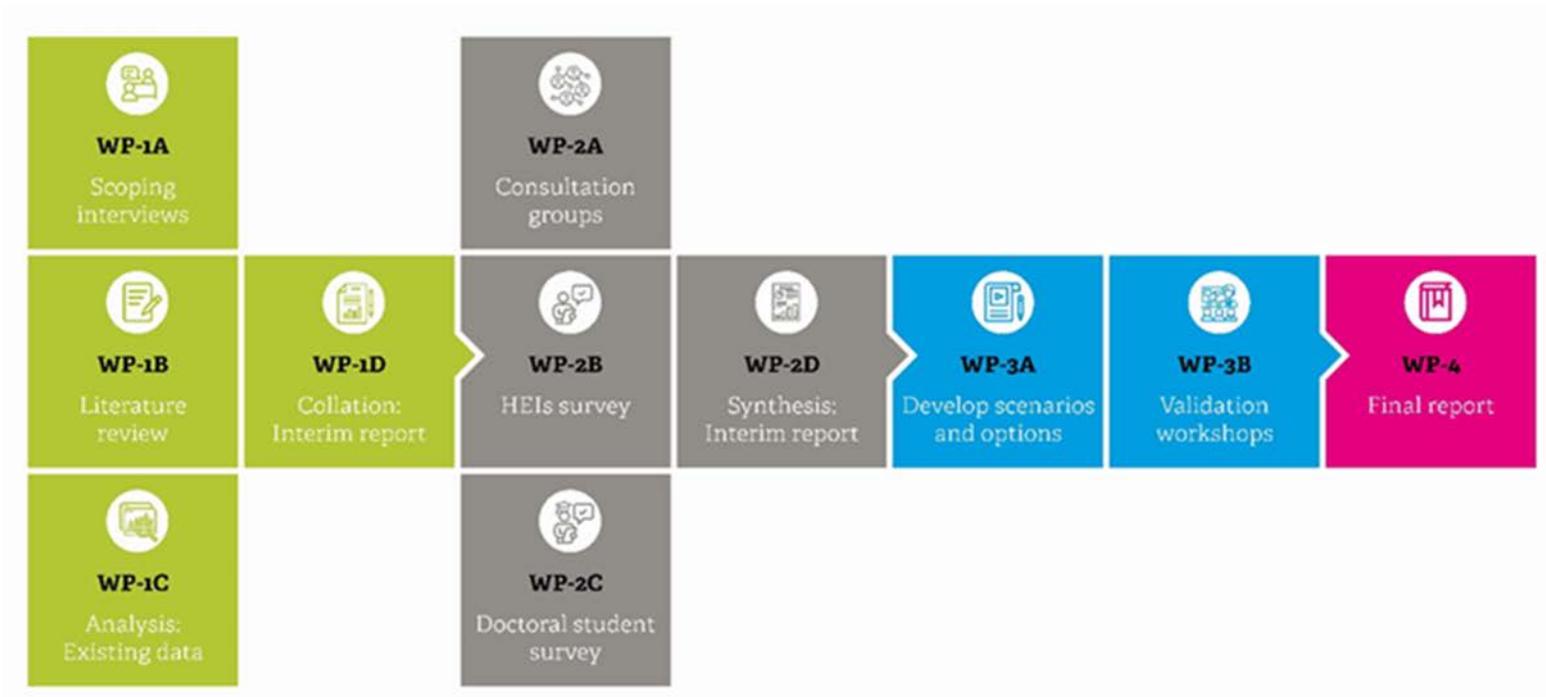


Figure 1.1 Diagrammatic depiction of project stages and activities, August 2021 to September 2022

Stage 3 largely comprised work by the project team to distil findings from all the evidence obtained and develop potential options for AHRC's future investment and support. This included development by RAND Europe of contextual scenarios for the future in WP-3A, which we used to test potential applicability and robustness of the options under development. WP-3B was activity to review, test and validate the options developed, through a combination of two further roundtables with stakeholders and dialogues with groups of AHRC staff.

Preparation and delivery of this final report and supporting evidence comprised Stage 4 (WP-4). We feel confident that the engagement activities within the project were all broadly successful and, taken together, provide valuable evidence from a wide and appropriate range of informants representing the key stakeholders in A&H doctoral provision. We specifically sought and were able to engage academic staff in a variety of roles, as well as current doctoral students and some alumni, from a large number of HE institutions across the UK including both those in receipt of current AHRC funding and without, as well as representatives from non-academic bodies and employers.

The evidence gathered cannot be considered to represent statistically all views held across the entire populations of these stakeholders, and much of our engagement activity was through qualitative research. Nonetheless, we believe the findings and evidence we present here are robust. Our analysis of information obtained through roundtables and interviews was partly thematic, building on themes emerging from the scoping phase of the project as well as extensive prior knowledge of doctoral education held within the CRAC-Vitae project team. However, our approach deliberately encouraged individual perspectives and ideas, and we consciously allowed new topics and themes to emerge.

The findings in this report are based on a distillation of the information obtained. It includes views that were held by multiple informants, together with some that were raised by a smaller number of individuals but which related to expected themes. Where an issue was raised by a sole participant, that we judged was at least in part related to specific individual circumstances, it was not included. We consider this process to have been robust as the sequence of roundtables included two 'reflection groups' which were deliberately designed to review and validate emerging findings. Two further, subsequent validation groups, which considered options, also revisited many themes. Those additional discussions, and the precursor scoping interviews, meant there was progressive reinforcement of emerging issues and findings, which we believe increases the validity of how we have distilled and articulated them.

The range of engagement activities, the variety and suitability of stakeholders engaged, and method of distilling findings from the information obtained, lead us to believe we are able to report valid findings and develop future options on the basis of a robust platform of evidence.

### **1.3 Context**

Doctoral education is seen as a critical component of building the research and development workforce necessary to achieve the Government's ambitions to drive the UK economy through research and innovation. UKRI, as the largest funder of doctoral education, and AHRC, the largest funder within the A&H, have important roles in providing high-quality research degree training that sets the standard for other doctoral provision to aspire to.

There has been a transformation in doctoral education in the UK over the last twenty years, in many ways catalysed by the Roberts report 'SET for Success'<sup>3</sup> which stated that doctoral

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<sup>3</sup> [https://webarchive.nationalarchives.gov.uk/ukgwa/+http://www.hm-treasury.gov.uk/ent\\_res\\_roberts.htm](https://webarchive.nationalarchives.gov.uk/ukgwa/+http://www.hm-treasury.gov.uk/ent_res_roberts.htm)

researchers were not being well prepared for careers beyond academia – or careers within academia. The associated funding kick-started the creation of personal and professional development programmes for PGRs and more structured doctoral programmes. Particularly in A&H disciplines, there has been a move from a predominantly ‘apprentice model’ of a lone doctoral researcher working with or alongside a supervisor to a comprehensive programme of cohort-based doctoral training involving staff from across the institution – and beyond.

Much of this change in A&H doctoral provision has been championed by AHRC which has moved from awarding individual stipends to the introduction of block grant awards to institutions. AHRC’s current funding portfolio is through Doctoral Training Partnerships (DTP), comprising consortia of institutions, and Collaborative Doctoral Partnerships (CDP) with non-academic organisations. It is now concluding funding for a number of Centres for Doctoral Training (CDT) which were block grants made via funding competitions to organisations or consortia which aimed to provide additional PGR funding in certain priority disciplines, including design, heritage and modern languages.

AHRC’s Research Training Framework for Doctoral Students,<sup>4</sup> alongside the UKRI Statement of expectations for Postgraduate Training,<sup>5</sup> outlines the expectations on institutions to provide an excellent research training environment, as well as on PGRs and collaborators or partner organisations. While not being prescriptive, it expects institutions to provide a comprehensive, needs-based researcher development programme that enables students to successfully complete a high-quality doctoral research project, develop their competences to be an independent researcher and prepare them to have a wider impact beyond academia.

There has been more attention recently on the supply into doctoral education with recognition of the need to achieve greater diversity in the PGR population and address current barriers to access and equity.<sup>6</sup> Despite recent efforts, many acknowledge that overall there has been little change in the profile of the A&H PGR population. In terms of career paths, A&H doctoral graduates have been ‘most affected by changes in the labour market’, with ‘a faster-rising proportion employed on fixed-term contracts, especially short term, and higher levels of portfolio working compared with other disciplinary groups’.<sup>7</sup>

The UK Research and Development (R&D) Roadmap<sup>8</sup> in 2020 and subsequent R&D People and Culture Strategy<sup>9</sup> in 2021 have both highlighted the importance of postgraduate research, leading to a government commitment proposing a ‘New deal for postgraduate research’.<sup>10</sup> This is seen as a long-term programme of evaluation and change, led by UKRI in collaboration with partners, initially through a widespread consultation phase seeking deep sector engagement, including with prospective, current and previous PGRs. The aim of the ‘new deal’ is stated as to ensure that postgraduate research in the UK remains sustainable, open and attractive to a wide range of candidates (both from the UK and internationally), that delivers the highly qualified and skilled researchers and innovators the UK and global societies need. Part of its focus is on doctoral student funding and financial support, as well as rights and conditions, all of which are likely to have implications for (and potentially constrain) future A&H research funding. This project for AHRC will input to that major consultation and review exercise.

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<sup>4</sup> <https://ahrc.ukri.org/skills/rframeworks>

<sup>5</sup> <https://ahrc.ukri.org/skills/phdstudents/award-holders-terms-and-conditions>

<sup>6</sup> <https://www.ukri.org/about-us/ahrc/our-policies-and-standards/equality-diversity-and-inclusion-policy/>

<sup>7</sup> <https://www.vitae.ac.uk/wdrd2013>

<sup>8</sup> <https://www.gov.uk/government/publications/uk-research-and-development-roadmap>

<sup>9</sup> <https://www.gov.uk/government/publications/research-and-development-rd-people-and-culture-strategy>

<sup>10</sup> <https://www.ukri.org/what-we-offer/developing-people-and-skills/new-deal-for-postgraduate-research/>

AHRC's Strategic Delivery Plan 2022-25 is the framework within which AHRC is working for the immediate future,<sup>11</sup> while this specific project aims to look further forward. The Strategic Delivery Plan adopts the six objectives identified in the current UKRI Strategy<sup>12</sup> but also sets out four key aims, which encompass a range of aspirations concerning people and careers through to innovation and impact:

- 'Discovering ourselves' – seeking to be open and willing to do things differently to support the best ideas and broaden the reach and scope of A&H;
- 'Contemporary challenges' – aiming to bring people and organisations together to place humanity at the heart of solutions to society's biggest questions;
- 'Cultural assets' – to create an environment where culture can be conserved, curated and deployed better to support happier, healthier lives;
- 'Creative economy' – to broaden partnerships so as to place research and innovation at the heart of the creative economy.

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<sup>11</sup> <https://www.ukri.org/wp-content/uploads/2022/09/AHRC-010922-StrategicDeliveryPlan2022.pdf>

<sup>12</sup> <https://www.ukri.org/wp-content/uploads/2022/03/UKRI-210422-Strategy2022To2027TransformingTomorrowTogether.pdf>

## 2 The role of AHRC

### 2.1 Perceptions of AHRC's current role in doctoral education

The stakeholders we consulted through interviews, roundtables and the institutional survey were unequivocal about the importance of AHRC's engagement in doctoral education. They considered it to play a variety of roles currently:

- As the largest single funder of A&H doctorates, there was universal agreement that AHRC provided a crucial element of the total funding deployed on doctoral programmes, contributing substantial enhancement to the number of A&H PGRs.
- In providing support for fully-funded studentships, many expressed the view that this meant that some PGRs were able to undertake doctoral research who would not otherwise have been able to do so, which could enhance the total diversity of PGRs.
- AHRC's funded doctoral programmes were seen as market-leading, in terms of extent of funding, duration and support, setting a benchmark for other funders to match. In this respect it was seen to have a leadership role.
- That leadership role also extended to the nature of the doctoral programmes, as many saw AHRC models, e.g. DTPs and CDPs, to be of the highest quality in terms of student funding, supervision, training and development opportunities, setting the gold standard to which other funders aspire. There was some concern that if AHRC ceased directly to fund programmes, the packages offered by other funders (including institutions) might decline in quality.
- Most participants felt that AHRC's role in funding doctoral education is critical to the health of the A&H disciplines, as its funding can be strategically positioned to maximise disciplinary coverage across the UK to sustain research capacity and culture. It is also important to recognise that a significant number of individuals felt that AHRC's strategic intentions were not always clear.
- Many individuals commented that AHRC funding could be relied upon to maintain some 'pure' research, whereas many other funders could have a particular agenda and tailor their funding to support that particular direction or application area.
- AHRC was seen to be responsible in large part for the recent growth in collaborative doctoral provision with organisations beyond academia, which was seen as very positive. Some identified that it was playing a strategic role through these partnerships by which additional doctoral funding was being secured from external organisations, such as museums, charities and the public sector and a few relevant businesses.
- Several participants recognised the role AHRC plays in capacity-building in other ways, such as its investments to increase UK research capability, by funding centres of excellence in training in certain skills or study topics, which enhance UK sovereign capacity.
- The other area which most stakeholders described as a crucial role of AHRC was its advocacy for the importance of A&H research and researchers, including making the economic, societal and cultural case for A&H to policymakers. There was some appreciation that AHRC is currently doing this better than it did around 20 years ago. Many expressed the view that AHRC was crucial as one of the few bodies "*fighting our corner*".

- There were more equivocal views about the extent to which AHRC had managed to enhance equality and diversity of access and participation in doctoral study – some felt that it had led progress in this area but a larger proportion felt that the extent of progress had been limited and that its policies (for example, in relation to DTP operation) had hindered the potential advances that could be made at institutional level.
- A more contentious aspect of AHRC’s role as a funder related to the extent to which it was perceived as prescriptive. Some felt it was not and appreciated local freedom to implement programmes in ways their institution felt would best serve the perceived strategic intentions (these tended to be individuals in large institutions leading DTPs). A few others felt the reverse and perceived a lack of trust by AHRC of institutions, that hindered how innovative they could be both in relation to research topics and DTP implementation. Others, again, felt AHRC should be more assertive, or directive, in relation to achievement of strategic intentions (and a desire for clearer strategies), reflecting the heterogeneity of perspectives in the sector.

## 2.2 Aspirations for AHRC’s future role in doctoral education

The previous section provides evidence that stakeholders in A&H doctoral education believe AHRC currently plays a multitude of roles in UK doctoral provision. More important in the context of this study, perhaps, is the roles that stakeholders feel it should play in the future, several of which were encapsulated in this contribution:

*“The AHRC’s roles should continue to be funder, advocate, facilitator, and critical friend of the Arts and Humanities. It should foster change, innovation, and diversity among practitioners and students, but not impose preconceived models upon them. It should encourage fruitful exchange with other academic and scientific disciplines and research cultures, but not pursue ‘one size fits all’ uniformity. Within a funding landscape sometimes under pressure from short-term and narrow conceptions of ‘impact’ as economic utility, the AHRC can help ensure that the ‘arts’ are not reduced to the fine arts, that the ‘humanities’ are not transformed into the ‘human (or social) sciences’, and thus that research in the Arts and Humanities can continue to contribute to the flourishing of the society and culture of the twenty-first century.”*

Unsurprisingly given the consensus around its perceived current important role as a funder, there was a universal view that AHRC needs to remain a major direct funder of doctoral research in future (i.e. as a funder of studentships within doctoral programmes). This was also the most popularly cited role in responses to a question about AHRC’s potential future roles in the institutional survey. This desire for AHRC to remain a funder was backed by a multitude of reasons, including strategic issues such as to assure the health of disciplines, to ensure sustained A&H research capacity (maintaining a pipeline of future researchers, and ensuring that those researchers are well trained), and to make it possible for some students to undertake a doctorate without going into debt (without which, access to doctoral research would be restricted). There was also recognition that for AHRC’s other potential roles in doctoral support to be taken seriously, it needed to remain a direct funder itself.

*“If the AHRC is serious about supporting A&H research in the UK and around the world, and maintaining the UK’s world leading position in A&H research, then it needs to play a very significant role in doctoral programme support. At least as significant as it*

*currently does. For if the AHRC is not taking the need to fund the next generations of A&H scholars seriously, then it begs the question who is?"*

The ways in which AHRC might fund doctoral provision were frequently integrated within other common suggestions for the future role of AHRC, in relation to desired enhancements to the diversity of student participation and pattern of funding for institutions. These issues are covered in Chapter 4 on doctoral programmes.

Many stakeholders felt that there remains a strategic role for AHRC in ensuring that A&H doctoral education is more than the sum of its disciplinary or institutional parts. They recognised that UKRI has a stewardship responsibility for the entire HE research system and they assumed that AHRC has this role for research in the A&H disciplines. While there was extensive support for the current increased focus on interdisciplinary research across and beyond A&H disciplines, all felt that it should not be at the expense of developing good fundamental research within A&H. It was AHRC that was perceived to be needed to play a suitable strategic role to maintain a good balance within and the health of the A&H disciplines.

In addition to that stewardship or leadership in relation to disciplines, stakeholders saw AHRC functioning as a gatekeeper in other ways – setting standards for the quality of doctoral provision, leading the sector and supporting institutions so as to keep to those standards. It was felt that AHRC was singularly well placed to play that leadership role and showcase good practice, with its funded provision being the gold standard.

There was widespread agreement that the training, support and development opportunities, and generally better levels of supervision, offered within these gold-standard AHRC-funded programmes should be 'locked in' to doctoral programmes, so that in future quality could not reduce. Some felt that a 'quality assurance' role could be extended so that AHRC could in some way 'accredit' other (i.e. non-AHRC funded) doctoral provision that met AHRC standards. This could help to bridge the gap between institutions (or disciplines) that receive AHRC funding and those which do not, due to limited funding rather than lack of quality. Such recognition by AHRC could enable those institutions to promote their doctoral programmes more strongly and attract highly-skilled researchers, including from outside the UK.

*"AHRC should be bringing clarity of purpose for doctoral education: living that purpose and driving intentional and purposeful change".*

*"The AHRC should be a strong and vocal advocate for the value of funding support for research to improve consistently and exponentially the quality of research conducted by A&H doctoral students."*

*"The AHRC can be an effective enabler and can empower. Universities such as ours see A&H as a force for professional development and social mobility and the AHRC can help achieve these goals, making the arts and humanities acceptable to everyone."*

In relation to these strategic roles, there were quite widespread feelings that AHRC should do more horizon-scanning so that it can develop a stronger vision and clearer statements of ambition and direction. These reflected comments made about perceived lack of clarity over strategic direction in the past. Some specifically felt that AHRC as an organisation currently has a greater bandwidth and capacity to facilitate such leadership and they would welcome the opportunity for the A&H community to support horizon-scanning and strategy development. Some informants added that while they wanted AHRC to identify and lay out the broad direction of travel for A&H doctoral education, it should retain its current position of trying

to be flexible and playing a facilitating role, i.e. being reasonably hands-off and allowing HE institutions to adapt models and delivery to the markets they worked with.

In addition to these roles in funding and shaping doctoral education in A&H disciplines, stakeholders expressed very strongly the need for AHRC to continue and especially enhance its role in terms of advocacy. Many felt that as Government policy related to HE and research and innovation continues to tilt towards STEM subjects, so AHRC needs to fight the A&H corner more strongly than it does now. A substantial number of roundtable participants thought that the A&H community collectively does not currently do a good job in promoting what A&H disciplines and researchers contribute to the economy and society. They wanted AHRC to lead on this more assertively and become a stronger advocate for A&H (research). There was a sense that both A&H as a community and AHRC should be more ambitious and become stronger driving forces in research and wider society.

Given the increase in the proportion of research, overall, that is being conducted in multi-disciplinary ways to address global and societal challenges, it was felt that AHRC needed to ensure the critical contribution that A&H can make is widely recognised and that A&H researchers are not relegated to playing a bit part in tackling these challenges. In order to do that, it should identify the big issues where A&H can play a major role.

*“AHRC should continue to play a role in leading the conversation not just about need to demonstrate and create social value but of the necessity of A&H in conversations about what social impact and values mean and entail.”*

*“The AHRC is the only organisation speaking for these disciplines, and it should lobby for them not just in terms of research but in terms too of those things that feed and nurture research and research careers.”*

*“Given the ongoing and likely further diminishment of A&H funding and increasing demands by government to demonstrate the social utility and value of A&H, A&H doctoral research provision might ... look for opportunities to work alongside and, as appropriate, capture funding for and lead projects that at first glance appear as if they were primarily designed for STEM, Social Sciences, etc. The key is about insisting that A&H are not adjuncts to but appropriate intellectual leaders for a much broader range of projects than has heretofore been conceptualised.”*

Beyond these roles that mostly relate specifically to doctoral research, two other areas of potential influence and activity for AHRC emerged from the engagement activities. One was in relation to the pipeline and progression of doctoral students. At one end, many participants felt that if the current widespread requirement for Masters study prior to a doctorate is maintained, then AHRC is likely to come under more pressure to adjust the balance of its funding more towards support for Masters study, to enable a more diverse pipeline to doctoral study: the cost of investing in a Masters degree being seen as a significant hurdle for some disadvantaged groups. Where a DTP had discretionary funding for Masters, this was seen as an important mechanism to increase diversity.

However, additionally, many also felt that at the moment the A&H disciplines lacked systematic support for doctoral graduates to progress into academic or other careers. In academia, this partly related to a dearth of postdoctoral positions in comparison with STEM disciplines and also far fewer early-career fellowship opportunities which could accelerate progression. They expressed desire for AHRC to put further investment into this research career stage, although it was appreciated that the total funding ‘pot’ was in reality likely to be limited, and understood

that any shifts in balance of funding towards postdoctoral (and Masters) support could be at the expense of doctoral funding.

A number of participants also related ambitions for there to be more support for international collaborations, as they felt that currently the A&H disciplines are 'behind' STEM in this respect, and recognised that many societal challenges were global and would benefit from internationally collaborative research approaches. It was felt that A&H disciplines themselves would also benefit, for example:

*“Strong international partnerships supported by the AHRC would provide a platform for researchers to address fundamental issues related to the A&H disciplines. Funding could support the development of a diverse base of research partners from different disciplines and geographical regions. This would be an important step in developing the capacity of A&H and also in addressing the historic challenge of bringing together transnational A&H communities and adopting a better global perspective.”*

## 3 Future contexts, careers and skills needs

The focus of this project was firmly on the future – provision that will produce doctoral graduates in 2030 and beyond – but many considerations of the future were built upon some extent of review of current and recent activities and context. From the outset of the project we were keen to introduce some specific horizon-scanning in relation to the broad context of the future world of employment, the research environment within that, how relevant career pathways might develop and, especially, how needs for skills might be different in the future.

We attempted to address these issues in all the research strands of the project. In practice, this aspect of the project was distinct from the others in terms of the provenance of evidence and insights. The extent of evidence about future needs from our qualitative engagement with stakeholders was lower than for other topics, with participants relatively cautious in their consideration or predictions about future trends. On the other hand, we were always aware that much more evidence was likely to be available through our review of literature, particularly insights into the future world of work and skills requirements. Careers and skills needs were also discrete topics within the survey of doctoral students. As part of the project, colleagues at RAND Europe developed a range of contextual future economic and societal scenarios, constructed using the base of evidence available at the end of Stage 2 of the project, within which we could consider potential models for future doctoral provision.

### 3.1 Future contexts

#### 3.1.1 *The changing world of work*

The timing of this project as the Covid-19 pandemic began to decline meant that every participant or respondent had some personal insight into some of the ways in which society and employment might be different in future, as they had experienced a rapid shift to ‘remote’ online working as part of the UK’s response to the pandemic. Unsurprisingly, there was ubiquitous assumption that some extent of remote study and work would remain, commonly referred to as ‘hybrid’ working, and this was the most common first response in conversations about future work contexts. That shift, which to some extent has now become embedded in UK employment, was seen to have a number of implications. Those directly relating to how research (including doctoral study) is conducted are considered in section 3.1.2.

Many commentators have written recently about potential pandemic-induced and post-pandemic changes to employment, little of which has yet entered formal literature due to how recently this ‘acceleration’ (of change) has occurred. There is also a vast informal, and to some extent formal, literature about the future of work in particular, and how life and society may change too. While the REA in Stage 1 included the future of work in its scope, the time and resourcing constraints of that review meant it focused primarily on A&H and other doctoral study, rather than future employment, other than the inclusion of a few key references about expected skills need changes. Nonetheless, it is possible in summer 2022 to recognise more generally that the importance of work location will diminish in future, as more employees in many professional occupations are able to work remotely (rather than at a particular organisational premises) and many ongoing business communications and meetings are effective online. This has a number of related effects, including a reduction in commuting time and effort with some consequent improvement in the balance of work, travel and personal time for significant numbers of workers. This has awakened recognition in many sectors that better work-life balances, with consequent benefits to wellbeing, are achievable, at least for those in

some occupations. This has impacts for employers if they wish to retain talented staff – potentially transferring more power to employees and leading to more employers considering the importance of working culture and wellbeing in their workforce and talent strategies. This resonates strongly with generational changes; individuals characterised as Generation Z tend to have more interest in quality of work (including satisfaction), work purpose and culture, personal development and wellbeing, as well as wider societal and environmental concerns, than in remuneration or promotion (to positions of managerial authority).<sup>13</sup> It is widely anticipated that more workers of the future, particularly in the sorts of sectors and occupations that doctoral graduates will enter, will have expectations of more flexibility in their working conditions, more support for personal wellbeing and more personalised treatment than currently. At the same time, international mobility has been increasing and geographical constraints on communication or business decreasing, resulting in a world of work that is more global and yet arguably at the same time more individualised.

Viewed in terms of the changing importance of industrial sectors, there is some consensus that while there have been and will be further declines in employment in many traditional extraction, production and manufacturing industries, employment in sectors like education, research and development, and creative and leisure will largely be maintained, as demand continues or rises and automation has relatively low impact in those sectors. Analysis of early career outcomes of doctoral graduates over the last 10 years shows remarkably little change, reflecting expectations that many of the sectors and occupations in which A&H doctoral graduates tend to be employed are unlikely to decline in importance or markedly in size.

That said, many participants in this project anticipated that funding for the arts and culture sectors (generally within society) could well reduce in future, proportionally, as public funding comes under increasing pressure due to range of other societal and economic drivers. In the education context, progressive declines in the number of young people choosing to study certain A&H subjects (such as languages) during compulsory education, and at university as undergraduates (UGs), is expected to have impact. Should this continue, it is possible to foresee closures of some university departments in certain disciplines, which could affect potential careers for A&H doctoral graduates (and A&H doctoral education).

What is also expected, however, is that changes in the extent of labour needed within sectors, or within different industries or organisations, will occur and require more people to have less linear careers, shifting more than they do now between jobs – and potentially between industries or sectors too. Changes of this nature may require individuals to re-skill throughout their career. More porosity between work sectors, and between work and other aspects of life including education or study, is expected – with portfolio and/or part-time work becoming more common. It is already common amongst some types of A&H graduates, such as those from performance and creative disciplines. Allied to this, increases in longevity and lower returns to pension investments mean that people will generally have to work longer, and potentially have to re-skill later into life in order to remain in employment, than now, but will also wish to remain active into later life, for example undertaking part-time work alongside other interests well beyond what has been the traditional retirement age.

Another major trend is the increasing emphasis on data and information technology (the digital world), with shifts in the type of work that individuals undertake but also changes in the way

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<sup>13</sup> E.g. <https://www2.deloitte.com/us/en/pages/consumer-business/articles/understanding-generation-z-in-the-workplace.html>

they work, with technology playing an ever greater role in enabling their work but also data and digital techniques enabling them to undertake different types of activity at work.

There are consequences of all of these broad shifts in employment in terms of evolving skills needs, for those conducting doctoral research and progressing from it into their careers, which are discussed later in this chapter.

### **3.1.2 How research may change**

Stakeholders consulted in this research were more expansive when it came to predictions and expectations about changes to research and the way it will be conducted in future. Much of the recent shift to online teaching, training and research, due to the pandemic, was expected to continue, for reasons of convenience, economy and 'efficiency.' It was noted that much doctoral supervision was now taking place 'remotely' even where the supervisor and PGR were in the same institution, opening up more possibilities for remote doctoral study (including transnational) and making the rising extent of inter-institutional (or -organisational) supervisory arrangements very possible practically.

The increase in popularity and effectiveness of communication and collaboration at distance brought into question for several stakeholders whether partnerships (such as a DTP) would need to continue to be location-based. Many DTP and other doctoral programme partnerships are currently between institutions, or clusters of them, located in geographical proximity. If remote collaboration becomes the norm, this opens up opportunities for more interest- (or specialism-) based partnerships or clusters, which could have positive impacts in terms of critical mass of researchers or cohorts of PGRs. Such development could enable alternative strategies to underpin DTP programmes, for example. This could also counter some of the fear that some A&H departments will close as they become unsustainable due to the decline in UG student numbers.

A number of stakeholders believed that A&H research will need to pivot in order to play its part in tackling society's grand challenges and to ensure that it is not excluded, in a research world expected to be more focused on addressing those large societal challenges. As the extent of and need for interdisciplinary collaborations and team science increases, structures and funding will have to become more flexible and the boundaries between Research Councils could need to become more permeable. In the shorter term, these expectations supported the AHRC's current focus on increasing interdisciplinary research. As noted in the previous chapter, such developments will require advocacy and effort if A&H researchers are to play a significant part, although many believed that A&H researchers are well placed to develop and provide some of the more creative approaches and mindsets that will be needed to address these challenges.

There was a widespread expectation that the need for public engagement in research will continue to increase and also the extent of focus on impacts of research. While there were voices in every roundtable that 'pure' or 'traditional' research within the A&H was vital, there was acceptance that more of A&H research effort needed to be seen as impactful, and the A&H research community needed to become better at demonstrating this. Engaging with society and research users, and more openness in how research is designed, undertaken and communicated, were expected to be core to doctoral research in future, rather than activities that are seen as additional dissemination opportunities for research outcomes.

Both geopolitically and in terms of research, the locus of power is shifting (eastwards, mainly, in relation to the UK at least) which will influence the mobility flows of researchers and

prospective PGRs and where collaborative opportunities may lie. In the institutional survey, many respondents felt that there would be growth in the number of A&H PGRs in their institution in future but that this would be driven most strongly by PGRs from overseas (whether funded by UK funders, their own governments or funders, or self-funded). Participants generally welcomed the recent shift by UKRI to allow proportionally more funding of international PGRs.

Driven by the almost universally expressed expectation that a higher proportion of A&H doctoral graduates will work outside HE, due to expected diminution of A&H academia in the UK, there were strongly held views that doctoral training needed to provide strong support for that wide variety of career outcomes. In that respect, recent improvements to the 'package' of developmental support, including opportunities for activities such as placements or internships outside HE, were felt critical to be maintained, even increased, in future. It was also felt that the changing labour market should be supported by an increase in professional or practice-based doctoral study: interestingly the institutional survey responses anticipated that practice-based doctorates would be among the more strongly growing areas of their doctoral provision. Doctoral training that develops a wide range of skills would also support anticipated increases in the mobility of people between academia and other sectors.

As noted, it is expected that more people outside HE will work part-time and so there will need to be more doctoral models that cater for people in those circumstances, presumably in the form of more flexible, part-time provision. If traditional '9 to 5, 5 days per week' work becomes less common, more time could be left for study and leisure, including doctoral study of topics of strong personal or professional interest. These thoughts were somewhat reinforced by perceptions that a proportion of A&H PGRs would continue to study on an individual basis, despite shifts to more cohort-based programmes.

Turning to digital technologies, it was felt that the use of digital and data-focused and AI-related technologies would be more widespread in A&H research in future. Several participants believed these technologies were largely untapped areas for A&H researchers currently, and their potential was only just beginning to be recognised. From that position, it was felt that much more needed to be done to engage A&H researchers in digital- or data-related as well as interdisciplinary research, although it was also felt that many A&H UG students (in the pipeline) do not currently have the training in these technologies that would enable them to select or make the most of these opportunities, so work had also to be done in UG-level teaching.

### **3.1.3 Future careers**

As previously noted, there is no current evidence to suggest that the early-career destinations of doctoral graduates in A&H disciplines have changed markedly during the last 10-12 years. Just over half of them continue to enter academic jobs, which is a higher proportion than of comparable graduates in STEM disciplines, although some of these could be existing academic staff who have undertaken doctoral study from that position of employment.

Stakeholders expressed some concerns about whether the prospects for future academic careers would remain as positive, holding fears that A&H research might be allocated a lower proportion of overall research funding in future in favour of STEM subjects, and that some departments in certain disciplines might not be sustained due to a lack of UG participation and income. Several interviewees recognised that within academic research in future there would be an increasing need for A&H researchers to work within multidisciplinary groups to solve

global challenges, such as climate change, health or housing, from which there could result increased porosity between STEM, social sciences and A&H research fields.

Almost all felt that in future a rising proportion of A&H doctoral graduates would need to work in sectors outside academia, and several expected the creative industries to continue to grow as an employment destination, while demand from the cultural and heritage sector (GLAM)<sup>14</sup> was expected to remain at a broadly similar level. It was thought that for many roles in those sectors, the level of skill required was rising and with digital developments would rise further. Some stakeholders thought there would be increased opportunities for those with strong digital skills to work in some arts and creative sectors.

More generally we can predict that many careers will not be linear, with more changes of job and sector than historically, including into and out of academia. Doctoral training will continue to need to be designed and developmental opportunities offered that will prepare PGRs for a wide range of career occupations, and have the ability to navigate occupational or sector changes successfully.

### **3.1.4 Scenarios**

To underpin the views of stakeholders relating to future doctoral provision and test the robustness of the options we would develop, it was felt important to explore possible future contexts in which such provision might be located. Such exploration involves uncertainty and scenarios are tools which can help to address this uncertainty. RAND Europe worked with us to develop a range of scenarios to depict a range of possible future contexts. The process used to develop the scenarios, the factors considered in developing them and the structured approach to reflect uncertainties across the societal, political and economic landscape, are described in Appendix 6, along with detailed scenario narratives. It should be emphasised that the scenarios are not predictions but instead are hypothetical albeit plausible combinations of factors we derived from our research in Stages 1 and 2 of this project.

Four qualitative scenarios resulted, describing different possible contexts for future doctoral provision and careers. As the aim of this project was to consider future doctoral provision in the medium term, potentially 10-15 years hence, the scenarios are set in the year 2035 and can be narrated briefly as follows:

- **Scenario 1: 'Inclusive and flexible'**. In 2035, society is focused on inclusivity and recognises the value of A&H research. There is an increased focus on utilising interdisciplinary research to tackle societal grand challenges. There is a strong emphasis on equality, diversity and inclusion and attention to health and wellbeing for A&H PGRs and early career researchers.
- **Scenario 2: 'Market-driven'**. In 2035, labour market trends drive a focus on skills and employability opportunities for A&H doctoral graduates. The employability of A&H doctoral graduates is now greater than ten years ago, and non-academic employers are more likely to see A&H doctoral graduates as good investments.
- **Scenario 3: 'High prestige'**. In 2035, A&H doctoral provision is better aligned with the wider policy agenda and funding structures and is highly valued by the government, employers and students. A&H doctoral study is of high prestige but only accessible to a few. In line with this, doctoral degrees are extended to four years, although without an

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<sup>14</sup> Galleries, libraries and museums

increase in overall funding (so there are fewer PGRs), and there is no additional effort to increase access.

- **Scenario 4: 'Declining focus'**. In 2035, there is continued declining political support for A&H research and an unstable wider economic environment. A period of political and economic uncertainty has meant that investment in the research sector is no longer a priority, leading to stagnant academic and research job markets, and an overall decline in the value placed on doctoral education.

## 3.2 Evolving skills needs

### 3.2.1 Stakeholder views

It was widely acknowledged that changes in the employment market are resulting in an increasing need for researchers and doctoral graduates to have a 'T-shaped' skillset. Briefly, this is the concept of an individual having deep specialist research skills and knowledge (the vertical part of the 'T') but also a wide range of transversal skills (the horizontal bar of the T). Some stakeholders believed that if funding into a sector such as galleries, libraries and museums (GLAM) continues to fall, staff who undertake research or other highly skilled roles would need also to be able to fulfil other roles, such as interfacing with the public or in administration or financial management. This suggests that doctoral graduates will need to be more multi-faceted; researchers would no longer have to be just subject experts but would need to understand broader contexts and have skills in public engagement, raising funds and commercial understanding, for example. Such shifts are likely to be accelerated as museums and similar entities become more open and democratic.

A&H researchers across many disciplines will also need to be able to navigate difficult conversations about equality and de-colonisation. A key skill will be (inter)cultural competence, which is interpreted as the ability to engage with those of other races, cultures or backgrounds. Given its disciplinary relevance, there should be an opportunity for the A&H community to lead in this area and provide support to researchers in other disciplines.

Acknowledging a likely future where more of A&H research is focused on working in teams, potentially interdisciplinarily, to address societal challenges, it is clear that teamworking and collaborative skills will be crucial, as well as competencies that will enable co-researchers with different backgrounds in terms of skillset and research culture to work effectively together. As more A&H researchers work collaboratively with other research disciplines, more grant funding should become available to A&H researchers, so they will need to hone their skills to apply for interdisciplinary grants successfully. In some areas of A&H where research has predominantly been a sole endeavour, it will be necessary to work out how to provide developmental opportunities which will enhance these collaborative and interdisciplinary competencies.

It was almost universally accepted that in future A&H researchers will need to learn to identify opportunities for and linkage to potential commercial or societal innovation, which suggests that there should be enhanced development of innovation skills. Inherently, A&H doctoral graduates ought to be well-placed given that greater levels of creativity are expected to be sought in many industrial sectors. Even within established industries, the ability to be creative is increasingly regarded as a competitive edge, and this is one reason that more diverse workforces are being sought (believing that greater diversity of people can lead to greater diversity of thought and thereby enhanced imagination and creativity).

Another major area in which we prompted discussion was digital skills, including the growing interest in 'digital humanities.' There was significant variation amongst participants about what this means, i.e. whether it is a discipline in itself or whether it refers to digital techniques within existing disciplines. The most commonly held view erred towards the latter, and it was felt that in some disciplinary areas it could become a substantial segment of research in future. Notwithstanding that lack of definitional clarity, it was felt that the UK needs to build capacity in digital humanities and work proactively to be at the technical forefront of training in relevant skills and technologies. Some feared that the UK was already lagging in this area compared to other countries and that current capability is both in short supply and unevenly distributed, suggesting that AHRC should potentially lead on national capacity-building in this area.

Where there was more agreement was acceptance that the trend towards increased digitalisation of information requires high-level cognitive and technical skills so that people can make the most of technology or machine-supported approaches. This was expressed by some interviewees as a need for "*Fusion skills*' – *the combination of creative excellence, plus advanced IT/digital capability, underpinned by an innovative mindset*".

A more fundamental area of agreement amongst participants was that many A&H doctoral researchers tended to lack of awareness of the range of their individual skills and were poor at seeing the potential transferability of their skills and abilities into employment domains beyond their immediate discipline or academia.

### **3.2.3 Evidence from existing literature**

The approach taken in the Rapid Evidence Assessment was to use the Vitae Researcher Development Framework (RDF) as a framework within which skills could be plotted that sources in the literature suggested (i) A&H doctoral students currently have and develop within their research degrees and (ii) are demanded by employers from A&H doctoral graduates. These can be compared to identify gaps between doctoral students' skills and employers' demands to understand potential skills gaps. It then used a few key sources on the future of work and skills to identify skills which relevant future workforces were expected to need. This approach is presented in summary form in Table 3.1, which is also available in a more detailed presentation in Appendix 5.

This comparison suggests that A&H PGRs are developing a range of highly relevant cognitive and transferable skills but that there may also be some gaps in relation to the sorts of skills sought by employers and the future needs for skills as the working world evolves. In addition to a strong knowledge base, many A&H PGRs were thought to have high information literacy and some to have key language skills, and their abilities in terms of critical thinking and analysis were felt to be very valuable in a variety of employment settings. Creativity emerged as a key need for employers, increasingly in future, and the typical enquiring mind of an A&H researcher should support development of this skill (while some in the more creative disciplines should have high capability for creativity). The ability to think abstractly, to deal with ambiguity and to have the ability to switch mindsets, were all skills perceived to have great value, especially in future research addressing major global problems, that A&H researchers in particular could bring.

Personal qualities like resilience and adaptability were thought to be developed by many A&H PGRs, partly relating to the requirement for independent thought and self-reliance and self-management within doctoral research that could at times require considerable individual work. However, a number of RDF Domain C skills such as research and project management financial and budgetary skills were not skills that the literature identified as being developed

commonly by A&H PGRs, although the need for project management was regularly identified by stakeholders. Communication was highlighted as a key competency. While A&H PGRs do develop advanced communication skills, they can often use highly technical and specialised language which does not align with what employers expect, with many employers seeking persuasive messaging that will reach a broad range of audiences. Commercial awareness and enterprise skills, which could support entrepreneurship, were not seen as being developed typically by A&H PGRs, although this tends to be an observation made of PGRs in other disciplinary areas too (and is one of the common rationales for PGRs to spend time in other sectors during their doctoral programme).

Focusing more on the skills that A&H PGRs are likely to need in the future world of work, there was evidence in the literature, as well as from the stakeholder inputs, that globalisation of the economy and greater diversity in workforces increase demands for employees who have high levels of intercultural competencies, with high levels of empathy and emotional intelligence (as well as languages). Employers are already seeking greater numeracy and data literacy, while those in or close to research seek more specific data skills and knowledge of quantitative methods. In order to transition successfully into such working cultures, A&H PGRs will need to be able to work in an interdisciplinary environment, with a wide range of transversal or transferable skills, and some level of commercial and business acumen.

While some business leaders recognise that the research training system is producing high calibre graduates, PGRs in social sciences and A&H need to keep up with cutting-edge methods regarding data management, digital data collection and analysis (including 'big data') and dissemination, in both academic and non-academic careers. This echoes concerns that the UK's social science HE programmes were not providing enough emphasis on the development of quantitative skills, which led to the Q-Step programme, a national response to enhance training in that area.

Some A&H PGRs are believed to develop advanced abilities in critical thinking, which is highlighted as a key attribute for the future when using new tools or adjusting to new ways of working. Creativity will also be needed across the future work environment while workers need to be flexible, adaptable, to show initiative and self-direction, and be able to implement new innovations. A&H doctoral students will need to be agile and adaptable, be able to work independently, show strong initiative and themselves demonstrate innovate thinking. The expected faster pace of change will mean future workers will need to progress in some cases in the absence of certainty or an underpinning theoretical framework. It is thought that A&H graduates work well under such ambiguity and have a particular propensity to be able to switch mindset, which could be highly valuable in cross-disciplinary teams where those with STEM backgrounds might struggle more with ambiguity. More creative leadership approaches could well be needed to inspire others to adjust to new ways of working, while responsibility, social influence, persuasion and negotiation will be key.

	Researcher Development Framework		Skills identified in A&H PGRs	Skills in demand from employers	Skills for the future of work
A. Knowledge and intellectual abilities	<b>A1</b>	<b>Knowledge base</b>			
	A1.1	Subject knowledge	Y		
	A1.2	Research methods - theoretical knowledge	Y		
	A1.3	Research methods - practical application	Y	Y – including digital	
	A1.5	Information literacy and management		Y - Data management	Y
	A1.6	Languages	Y	Y	
	A1.7	Academic literacy and numeracy	Y – Linguistic literacy	Y - Digital/data literacy and numeracy	Digital, data, environmental and health literacy
	<b>A2</b>	<b>Cognitive skills</b>			
	A2.1	Analysing	Y - Critical analysis	Y - Including big data	Y
	A2.3	Critical thinking	Y – Critical thinking and reflection; Abstract thinking	Y	Y - Critical and systems thinking; Decision making
	A2.4	Evaluating			Y - Systems analysis and evaluation
	A2.5	Problem solving	Y	Y	Y
	<b>A3</b>	<b>Creativity</b>	<b>Y – Creative skills</b>	<b>Y</b>	<b>Y - Creativity and initiative</b>
	A3.1	Inquiring mind	Y - Adaptability/ Ability to learn; Dealing with ambiguity / switching mindset		Y - Ability to learn
	A3.2	Intellectual insight	Y – Independent thought		Y - Initiative and self-direction
A3.3	Innovation	Y – Design-oriented skills		Y	
A3.5	Intellectual risk	Y - Risk taking			
B. Personal effectiveness	<b>B1</b>	<b>Personal qualities</b>			
	B1.2	Perseverance	Y - Resilience		Y - Resilience, tolerance and flexibility
	B1.5	Self-reflection			Y - Emotional intelligence
	B1.6	Responsibility	Y – Independence		
	<b>B2</b>	<b>Self-management</b>	<b>Personal management</b>		
	<b>B3</b>	<b>Professional career development</b>			
	B3.1	Career management	Y		
	B3.2	Continuing professional development		Y - Transferable skills	
B3.4	Networking	Y			

	Researcher Development Framework		Skills identified in A&H PGRs	Skills in demand from employers	Skills for the future of work
C. Research governance	<b>C1</b>	<b>Professional conduct</b>			
	C1.2	Ethics, principles and sustainability		Y - Ethical practice	
	<b>C2</b>	<b>Research management</b>	<b>Research management</b>		
	<b>C3</b>	<b>Finance, funding and resources</b>		<b>Income generation</b>	<b>Financial/economic/business literacy</b>
	C3.2	Financial management		Y - Budget management	Y
D. Engagement and influence	<b>D1</b>	<b>Working with others</b>			
	D1.1	People management		Y - Empathy	
	D1.2	Team working		Y	Y
	D1.6	Influence and leadership	Y – Inspirational approaches		Y - Leadership and responsibility
	D1.7	Collaboration	Y - Collaboration / negotiation	Y- Interdisciplinary work	Y - Persuasion and negotiation
	<b>D2</b>	<b>Communication and dissemination</b>	<b>Communication</b>	<b>Communication with multiple audiences</b>	<b>Communication</b>
	D2.1	Communication methods	Y- Narrative skills	Y – Narrative skills; Persuasion	
	D2.2	Communication media			Y - Media literacy
	<b>D3</b>	<b>Engagement and impact</b>			
	D3.1	Teaching		Y	
	D3.3	Enterprise		Y - Commercial acumen / business awareness	
	D3.5	Society and culture	Y – Content development; understanding other cultures	Y - Social perceptiveness	Y - Social skills / civic literacy
	D3.6	Global citizenship		Y - Ability to operate inter- culturally and -nationally	Y - Cross-cultural skills / global awareness

Table 3.1 Summary of PGR-level skills relevant to A&H disciplinary and employment contexts

The literature confirms that part of the challenge for PGRs is articulating or communicating their skills, particularly to demonstrate that they are useful to employers in ‘their’ language. Recent ESRC recommendations (for social science PGRs) include to “ensure students understand how their knowledge and skills can be applied in a range of settings” which speaks to these perceptions that PGRs struggle to recognise which of their skills are transferable and to articulate them effectively to employers.<sup>15</sup>

### 3.2.4 Doctoral student perceptions

Amongst the issues emerging from dialogues with stakeholders in relation to skills were concerns around the extent to which PGRs understand the skills that their future employers may seek. Respondents to the doctoral student survey were therefore asked to indicate which skills they thought would be the most important to them or that they would need in their future workplace, after their doctorate, through open-ended responses. These revealed some differences between those who aspired to an academic career and those with other career directions in mind. Coding their responses, and splitting them by broad career intention, revealed the results in Figure 3.1.

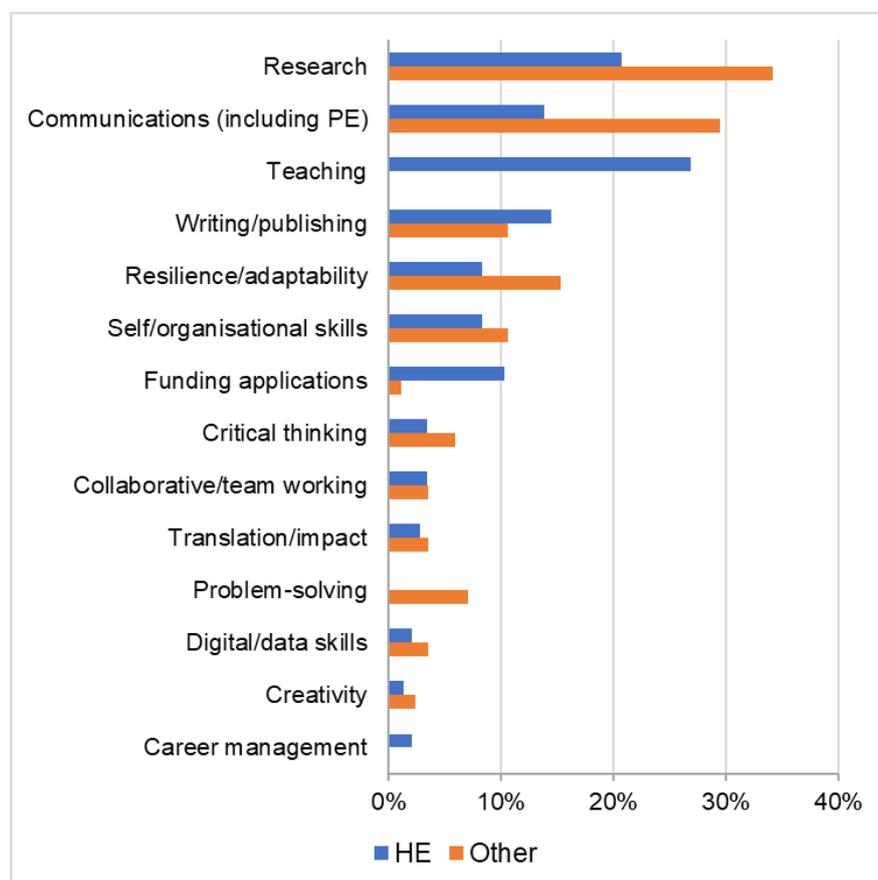


Figure 3.1 Most important skills needed in the workplace following doctorate, with broad career intention (HE career intention: N=145; Other career intention: N=105)

<sup>15</sup> <https://www.ukri.org/what-we-offer/developing-people-and-skills/esrc/esrc-review-of-the-phd-in-the-social-sciences/>

For those who aspired to an academic career, the most commonly cited important skills were teaching, research and communication (noting that the last of these they considered to include public speaking and outreach). Writing for publication and writing funding applications were also rated as very important skills by significant numbers of these respondents, along with personal resilience.

The pattern was somewhat different for those intending to pursue a career outside HE. Even higher numbers of these respondents assumed that research skills would be paramount and a high proportion recognised the high importance of communication skills. Again, resilience was relatively commonly cited but also these types of respondent identified 'organisational' skills such as project management and writing (albeit in these cases, this was not writing for academic publication). Both critical thinking and problem-solving were seen as important skills by relatively small minorities of these respondents.

Interestingly, very few respondents in either of these two broad groups mentioned digital skills, teamworking or creativity, which are skills that other evidence suggested should be very important in future. Equally, no respondents mentioned 'commercial' skills at all.

We suggest that this is evidence for some mis-alignment between the skills that current A&H PGRs think will be very important in a career outside HE and the skills that other stakeholders suggest will be very important. In addition, this also identifies some topics on which PGRs seeking an academic career would appreciate more support than they perceive they are now getting. It may also suggest some respondents were underestimating the potential importance to them of some of the skills for which they were currently being offered training or development opportunities.

## 4 Doctoral programme models

### 4.1 Role and potential value of A&H doctoral education

The following observations on the role and potential value of A&H doctoral education are drawn from evidence obtained in all strands of engagement and research in the project. The key themes are highlighted in bold.

**To sustain and build A&H research capacity and shape research culture, for the health of the A&H disciplines and to extend disciplinary research boundaries.** PGRs are recognised as the backbone of A&H research and constitute the pipeline of talent enabling A&H research endeavour to be sustained in future. They are a particularly important engine for research given the low numbers of postdoctoral researchers in A&H compared to other disciplines. PGRs are also recognised for doing research that might well not be done otherwise, especially in research-performing organisations outside academia (for example, museums and archives), thereby playing a valuable role in the total sector research effort as well as building its capacity. They are seen to play a key role in shaping research culture within the sector and its institutions, especially in external organisations which perform research. As relatively agile researchers, without some of the constraints of grant-type funding, they have the potential to extend disciplinary research boundaries, and bring new and experimental approaches to research.

As AHRC distributes public funding, it is regarded by many that there is an inherent responsibility for the doctoral education it funds to contribute to ensuring the health of the A&H sector (as well as to wider UK research). Many participants recognised that there is tension between the intrinsic value of research done by PGRs and its value for innovation and towards potential societal impact. The most widespread view was that A&H research has inherent value and therefore that not all research should be applied. This was seen to differ within different A&H disciplines; in some disciplinary areas most research is seen as 'pure' while in others (such as the creative disciplines) much more is recognised as applied and these differences should be reflected in doctoral education.

There was also perceived to be some tension between the role of doctoral education in ensuring disciplinary excellence and its role in training researchers for employment/careers. There was a widespread feeling that the sector has inherited doctoral education as 'the gateway to an academic career' and/or a 'licence for academic practice' but that those career directions are becoming progressively less common (and not the case for many PGRs).

**To produce skilled individuals.** It was widely felt that A&H doctoral education can and should produce people with high levels of skill in critical thinking who can also bring creative (or even playful) approaches to problem-solving, that may be distinct from those of researchers in other subject areas. Through these distinctive approaches they can contribute to solving society's challenges and problems, although many felt that this distinctiveness is not recognised by other disciplines and not celebrated enough by the A&H community. Critical analysis was seen to be different in A&H compared with other disciplines, with more nuance and context, and A&H researchers thought to have the ability to be comfortable with ambiguity. Approaching research with a mindset that thrives in a context of 'imperfect information' was seen as increasingly valuable.

A&H research creates a strong interest in theory in the researcher as well as the ability to reflect and to ask questions. Some participants identified one of these attributes as the ability to 'unlearn' and to 'be the grit in the oyster and not the oyster', which contributes to the capacity

of cross-disciplinary teams. A&H researchers should be able to take a wider perspective than others in some disciplines, but also have common skills to others in having to deal with large volumes of complex materials quickly and the ability to investigate well.

There was some doubt expressed about whether the doctorate is currently appropriate as 'training' for a contemporary academic career, not least as such careers are not entirely focused on conducting research. A&H academic staff tend to have more teaching responsibilities than those in other disciplines, and yet developing teaching expertise is not seen as integral to current doctoral programmes.

At the same time it was recognised that around half of A&H doctoral graduates enter careers other than in academia, and perceived that current doctoral programmes prepare PGRs less well for some of those career directions than others. There was a near-universal view that training programmes should overtly prepare PGRs for these wider career pathways.

**Contribution to society.** Perhaps unsurprisingly, given the nature of most participants, there was general agreement that study of the A&H disciplines contributes to the health of society and culture, neatly expressed by one as:

*“Science makes life more possible but A&H makes it more worth living.”*

A&H PGRs have the potential to undertake research for social good and make real and direct contributions to society in this way. Developing and encouraging intellectual thinking was seen to be able to contribute a certain amount of additional 'wisdom' to society. It was felt that PGRs need to be conscious of this opportunity and think about how they can play a range of constructive roles as citizens in society, whereas they may not be fully effective currently in recognising and articulating these roles.

## **4.2 Strengths and weaknesses of current A&H doctoral provision**

This section focuses on current and recent AHRC-funded doctoral provision, although some of the observations consider other programmes within the same disciplines (which is also useful in making some comparisons). We focus first on the strengths, with the intention that future doctoral provision can build upon these.

### **4.2.1 Current areas of strength**

First, it should be clearly stated there was very broad support for the value of structured collaborative models of provision, and the shift that has been made towards the researcher being the primary output of the doctorate and not the doctoral thesis.

Collaborative models were recognised to have some direct benefits in terms of providing higher-quality supervision, peer support networks and additional opportunities for individuals' development, in addition to the inherent benefits of being a fully-funded PGR with access to the wider range of institutional PGR training now offered by many institutions.

This shift of doctoral provision to focus on personal and professional development of the PGR was seen as highly beneficial, especially in the context of expectations that increasing proportions of A&H doctoral graduates (beyond the half or so currently) will pursue careers outside academia. Opportunities to gain experience in other sectors, through activities where the PGR is embedded in or engages with organisations in those other sectors, were seen as highly valuable, irrespective of the doctoral graduate's eventual career direction – but especially to those who will work outside HE ultimately (making them more employable, essentially). It was felt that the CDP model was exceptionally valuable in giving PGRs an

opportunity to become fully embedded within an 'external' environment in order to understand and learn its culture. It also had benefits in providing more experience of team-based research. In the student survey, many respondents spoke of the opportunities they had for training and development, when asked in what ways their AHRC funding was valuable – this was the most common theme of response other than the inherent value of being funded in the first place.

*"I think being a CDP candidate has been valuable in terms of professional development opportunities. As opposed to other students, I feel like I always have a grounding in the real professional world and am not limited to academia"*

*"There are so many more opportunities offered to AHRC funded students, including placements, research trips, archival visits, that are not open to, or are not easily accessible for, non-AHRC funded peers"*

The distinction in the extent of developmental and training opportunities available to those with and without AHRC funding could also be seen clearly in comments from respondents without AHRC funding:

*"AHRC funding would allow me to apply to extra training, events, exchange programmes and other opportunities that are reserved for AHRC funded students only. I recently found out about two good opportunities like these that I could not apply as I did not fit the criteria"*

It was also clear from the survey in quantitative terms that more PGRs on AHRC-funded programmes were engaging in developmental opportunities and skills training than other non-funded PGRs, that they were able to access both programme-specific opportunities and institutional provision, and that more of them were able to access training on certain key topics (see Appendix 3).

Supervisors are critical to the success of PGRs and there was a consistent view across those with experience in A&H research within academia that, overall, the quality of supervision had improved and was high in AHRC-funded programmes. This was reflected in the results from the survey of current PGRs, where the vast majority of those with AHRC-funding related highly positive experiences of their supervision:

*"I have two incredible supervisors who pitch their feedback in a way which is thought-provoking, considered and relatable to the research."*

*"Supervision [...] has been a life saver, the support has been extraordinary, can't find anything bad about it."*

*"I'm incredibly lucky to have an amazing supervisory team."*

It was generally accepted by stakeholders (and is embedded in the Quality Code for research degrees) that having multiple supervisors, i.e. a supervisory team, is beneficial for PGRs, although there was some feeling that this model was probably implemented less in practice in the A&H disciplines than others. Evidence from our survey of current PGRs, however, was unequivocal, with all respondents in AHRC-funded programmes having multiple supervisors, and 80% of them having the second supervisor located in a different institution (although open-ended comments suggested some range in the availability and engagement of the second supervisor). This was in sharp contrast to PGRs not on an AHRC-funded or other cohort-based programme, of whom only 11% had more than one supervisor and only 2% had their second supervisor in a different institution.

The DTP consortium model offers strong opportunities for an additional supervisor to be based in a partner institution, providing the opportunity for PGRs to experience different institutional cultures and potentially gain different perspectives. Similarly, within CDA/CDP models, supervisors from the external partner organisations can bring strong benefits to supervisory capacity as they offer different perspectives and PGRs may gain more understanding of the supervisor's sector. Some did feel, however, that the quality of these 'external' supervisors could be very variable and the model would benefit from clearer expectations of support expected from such supervisors. This was also observed in student survey responses (with several students making this specific suggestion as a potential future improvement).

Some stakeholders felt that many PGRs still feel they need permission from their supervisor to engage in developmental opportunities or training. While most felt that almost all A&H supervisors had bought into the value of such developmental activities, it was thought there remained some distance yet to be travelled before there was uniform acceptance of the importance, i.e. a culture that consistently values CPD.

Although this was relatively rarely mentioned by academic staff in our roundtables and interviews, another issue that differed considerably for PGRs by programme type was the sense of belonging to a specific cohort of doctoral students. Over 80% of AHRC-funded PGRs, and similarly of all those on cohort-based programmes, felt that they did belong to a cohort and appreciated its value in providing peer support and broader networking and developmental opportunities, albeit recognising that Covid-19 had limited how much they could physically get together.

*"I feel a sense of belonging to my CDP cohort much more than I feel a belonging to my immediate university cohort."*

*"The networking and check in sessions have allowed my cohort to bond and we have formed groups outside of this to meet up, stay in touch, and to support each other."*

*"I feel engaged with my cohort peers and am regularly in contact with them."*

Comparison with responses from self-funded PGRs showed that far, far more of the latter expressed feelings of loneliness and isolation, and their research experience to be very individual (although admittedly some of these cases were exacerbated by the impact of the Covid-19 pandemic which meant that they were working entirely remotely):

*"I feel very isolated from most PhD students as my research is very niche and does not fit nicely into any cohorts. As well as this, my department has a high level of DTP students and having not received this, it can feel very isolating."*

*"I don't feel connected to any other doctoral researchers."*

*"I am a distance learner and there is currently no forum for PhD students in my faculty."*

Having a range of models for doctoral education was seen to be beneficial, recognising that the highest quality research and highest calibre PGRs were not solely found in a particular type of programme, and that the needs of particular disciplines and PGR communities could require different models of delivery. For example, models that are practice-based or more applied may appeal to mature people already in employment, who wish to study and work at the same time. As it is anticipated that more people will be part-time workers in future, there is likely to be more demand for such models.

Some of those engaged in the roundtables felt that AHRC provided institutions with a good amount of freedom and flexibility to implement local variations in the doctoral model, enjoying the relatively ‘hands-off’ approach taken by AHRC. A few asked for more freedom to be innovative in provision and speculative research. Others, it should be said, felt the reverse and that AHRC should give a clearer strategic focus and be more prescriptive. There was, however, consensus that innovation in doctoral education requires some risk-taking and that AHRC’s provision ought to be at the forefront of innovation.

#### 4.2.2 Existing weaknesses to address

We turn now to the weaknesses that were identified by stakeholders, although in doing so we try to retain some focus on how these could be countered in future provision.

**Concentration of funding.** Throughout our engagement there was either concern about or acceptance of the existence of a two-tier system in terms of funding of institutions, i.e. those with AHRC funding and those without. Many stated the view that it is currently very hard for institutions ‘outside the system’ to obtain AHRC funding and that they feel locked out. There are widespread perceptions that funding and related power are concentrated in a relatively small number of institutions, which can lead to unintended consequences such as a lack of strategic balance across subjects or poor geographical coverage, requiring some ‘levelling up’. “DTPs are essentially a cartel model” was a widespread view.

*“AHRC should recognise research excellence where it exists, and broaden the DTP provision to allow for other universities to benefit.”*

*“A reconsideration of DTPs as the primary site for AHRC funding to widen participation.”*

In Table 4.1 we attempt crudely to analyse the extent of AHRC’s doctoral funding, based on current DTP and other known partnership funding, compared with the profile of institutions which host A&H PGRs based on HESA data (although it is possible that some of the unfunded Post 92 and specialist institutions may not have any research-level A&H provision, and the categorisation of institutions between those two groups is in some cases subjective). However, what this does confirm is the significant number of institutions outside the Russell Group which do not currently obtain funding, especially Post 92 institutions but also including some specialist arts institutions.

	Russell Group	Other	Post 92	Specialist arts	Other specialist	Total
AHRC funding	23	23	16	7	0	68
Total population	24	33	72	15	16	160
Proportion	96%	70%	22%	47%	0%	42%

Table 4.1 UK HE institutions thought to have AHRC doctoral funding

Most stakeholders felt that bringing more smaller institutions into DTP arrangements, or enabling them to access funding through some other model, would be positive, albeit this can result in hard work for all partners as smaller and Post 92 institutions tend to have lower

capacity to provide centralised support within such a partnership. Current models may present financial difficulties for those smaller institutions, and for external research organisations, which may limit their participation in practice. There was also concern that this could spread the allocation of PGRs to participating institutions too thinly.

However, several stakeholders also held concerns about the balance of power within existing partnerships, suggesting that some large lead institutions were playing too dominant a role, so that partnerships were not delivering in practice the aspirations for collaboration they had proposed. They inferred that some larger institutions were dominating the disciplinary balance and number of studentships within a partnership, and leaving smaller partners to compete only for “*crumbs left on the table*”. It was felt that the large and smaller/specialist institutions had complementary strengths which needed all to be harnessed for optimal total value.

Generally, management fees were not seen as adequate to cover institutions’ administrative costs, particularly for a host institution. That said, there was little evidence in the institutional survey of dissatisfaction with the overall requirements within DTPs, including for match-funding, appreciating that the extent of the latter was now more flexible. However, as more work is added to DTP administration, some stakeholders worried that fewer academics would be willing to take on the role of lead or coordinator; the model was seen as quite cumbersome, with significant cost and effort involved in providing the DTP ‘wrapper’ for a doctoral programme, so there were hopes that more efficient ways could be found to provide the additional value to the PGR that it delivers.

**Equity of access for students.** There was a ubiquitous view that much more needs to be done to increase equality of opportunity to access A&H PGR study. This was the shortcoming of current models most commonly raised by stakeholders in the interviews, roundtables and institutional survey, and extremely widespread in student survey responses too.

Many perceived that current DTP cohorts have a very narrow diversity of PGRs, especially ethnically, and this is borne out to some extent in the profile statistics from HESA data in Appendix 1, in comparison with A&H PGRs as a whole and the community of all PGRs. While it was understood that AHRC has expressed strategic intentions for enhanced EDI, it was felt that this had not translated into greater diversity of access and participation. A small number of participants felt that some DTP programmes had made some headway in this area, while many more felt that current arrangements for implementation of a partnership prevented them from doing so. A number specifically raised the issue of ring-fenced funding for certain under-represented groups, which they perceived was not permitted. The lack of Masters funding was also raised as an issue.

*“Quota awards or making more studentships directly available to black and minority ethnic students from disadvantaged backgrounds should be more effective for diversifying participation.”*

In the institutional survey, widening access and participation to allow a more diverse cohort of A&H PGRs was also, by some way, the most highly ranked future priority (Appendix 2). In that survey, we also specifically questioned the balance of priorities within selection for PGR programmes and how institutions tried to combine the two drivers of academic excellence and enhancing diversity and inclusion. While a few institutional respondents suggested that academic excellence did over-ride all other considerations, many indicated they were currently grappling with this issue and trying to assess candidates more holistically. While some claimed to be experimenting with different selection methods, very few reported that they had a

formalised contextual admissions process (unlike the situation for undergraduate admissions) and the devolution of selection to departmental rather than institutional level was seen to dilute any institutional policy or aspirations for this. The evidence seems to suggest that institutions have travelled different distances in shifting to more contextualised selection procedures, although almost all recognise that this is necessary to achieve a greater diversity of participation. The devolution of admission and selection processes to individual DTPs, rather than nationally, was seen to limit overall aspirations for greater EDI. Individual institutions were thought unlikely to 'take risks' in recruiting a more diverse profile of PGRs, thereby favouring students who already had sophisticated ideas about research. A more centralised system/monitoring (across providers) could enable the total diversity (of people and subject coverage) to be assessed and managed, and could enable more strategic diversification.

A perception raised by some stakeholders was that currently many A&H doctoral providers are beginning to select more inclusively from prospective students who have actively sought out doctoral education, but that relatively little is being done to seek out diverse prospective students to encourage them to apply. The application process and practicalities of doing a PhD or other doctorate were thought to be opaque to potential applicants 'on the outside'. It was felt the system needs to open up to more applicants who are employed or working outside HE, who may only be able to study part time, as well as a wider diversity of candidates progressing from a prior degree. It was, however, recognised that certain DTPs, through their disciplinary focus or local communities that they serve, did have more inclusive participation.

It was also thought that some CDP programmes could be effective in bringing in a wider range of students, than 'generic' DTP programmes, and equally that some practice-based models could tap into more diverse communities.

Analysis of the prioritisation of application criteria during selection showed some evidence that AHRC-funded providers put more emphasis on students having a prior Masters degree, than others, potentially as a response to funders' demands to prioritise academic excellence. This resonated with the perceptions of stakeholders for an increasing requirement for a Masters, generally, and that this is in tension with the desire for greater EDI within PGR cohorts.

*"We have to fix the Masters funding problem or we are going to have an extremely homogenous cohort in the future".*

The traditional structure of a PhD within a DTP programme (3 years full-time, and for those studying part-time only a limited opportunity to flex the part-time options) was thought to hinder some potentially strong 'external' candidates who cannot commit to full-time study or afford to live on a doctoral stipend. It was felt that the adaptability of funding to individual circumstances is currently limited. For example, the opportunities to provide additional funding to support a PGR with maternity or with caring responsibilities were thought to be limited, and the current model perceived not to be responsive to those with particular individual circumstances that required additional (financial) support) such as disability.

**Structure of the PhD and supervision.** There were a number of stakeholders who felt that the DTP model (which is the largest model funded by AHRC) needs to more agile/innovative in future. As new disciplines and cross-disciplinary topics appear, research groups will need to be more fluid and allow PGRs to move around physically and virtually in order to work with different groups of partners. Such groupings should be based on the needs of the research, it was felt, rather than the research being based on pre-existing institutional groupings. Current locality-based partnership arrangements were felt to be sub-optimal in a number of respects, including disciplinary strength.

For the PGR, the current doctoral model was perceived as being high risk – with success only coming right at the end and totally dependent on the thesis being submitted and examined. It was felt valuable in future to introduce some formal recognition of developmental gains through training/skills elements of the programme during the programme, as these are not formally assessed during thesis examination. This would also raise perceptions of the value of these skills and competencies in the eyes of funders and employers, and indicate to supervisors that they are important, and also be valuable to a candidate who ceased their doctorate prematurely (i.e. they could still have something to mark their achievement and development).

Many at the roundtables also commented on the thesis examination process. While the classical output of a thesis or a monograph has some merit (for example, it builds publication skills), it was thought that assessment of a wider portfolio of outputs of different kinds (which could include different forms of written or digital output as well as academic papers) could be more appropriate in a context where many will pursue a career outside HE. Practice-based doctorates did present challenges for examination but could also provide opportunities from which to learn more creative ways to assess the progress of a PGR. More flexible means of examination could be helpful to enhance the participation of employed people in part-time doctoral study, and help to widen the range of those prepared to undertake it.

**Developmental opportunities including placements and external partners.** As noted in the previous section, the training and development opportunities provided in a funded cohort-based programme were widely appreciated to be of great value to PGRs, irrespective of the career direction they intend to pursue. However, this needs to be seen in the context that around 35% of student survey respondents were not confident about obtaining a satisfying job that used their skills after completion, according to our student survey responses. Graduate Outcomes data, admittedly for the cohort who completed a doctorate in 2018/19, also suggest that a lower proportion of A&H PGRs undertook a placement or internship than in other disciplines (although those data were not sufficient to identify whether this was higher amongst AHRC-funded PGRs). These data suggest that far from all AHRC-funded PGRs are able to take advantage of these sorts of opportunity in practice.

Stakeholders confirmed that many PGRs did not take up placement or similar opportunities, and placement availability needed to be increased as much as possible. They noted that there can be a lack of suitable placement opportunities in some regions, particularly outside London and the South-East, so potential access is far from consistent. It was strongly felt that placements should not be made compulsory, as some PGRs already had extensive prior working experience – ideally all developmental and training opportunities should be tailored to a PGR's needs (which are partly based on their prior trajectory). Equally, not all PGRs are able to access the opportunities that are offered within current doctoral provision, especially if they are part-time and have daytime work or other commitments which prevent them attending events or activities scheduled during the working day.

Project-focused placements were felt to be more attractive to many PGRs, than other types of placement, and could be effective as a developmental opportunity. However, a placement should in all cases offer the opportunity to develop some commercial/business acumen. Shorter placements were seen as nearly as valuable as 'traditional' internships or placements, provided that they were accompanied by opportunities for preparation for and reflection on experiences gained.

Despite the widespread support for training and development opportunities, stakeholders did perceive there to be some tension between the need for timely completion of the doctorate

and having time for this increasing range of other developmental activities that aid wider employability. This could be a factor deterring some supervisors from buying into the wider training offer. A practical solution could be to have the placement scheduled after submission of the thesis.

The cohort effect is seen as valuable, as described by stakeholders and current PGRs, but it was pointed out that there needs to be a critical mass of PGRs to create it. PGRs may be reluctant or unable to travel across the country for physical cohort activities where a consortium is large and/or geographically spread; managing the cost of travel for such activity was raised as an issue in some institutions. A balance of in-person and remote activity within cohort engagement would clearly benefit this.

**Employability, reputation and perceived value of PhD.** Related to some of the former discussion, and although much progress has been made over the last decade, there still appears to be a need to make the value and transferability of skills gained during doctoral training more apparent to PGRs as well as to their supervisors and future employers. This would help PGRs to articulate their skills and market themselves better to employers that are less familiar with doctoral programmes. It was widely thought that doctorates are generally not understood by most employers 'distant' from HE, for which reason few of those actively seek to employ doctoral graduates. This could be one of the advocacy initiatives that stakeholders believed AHRC should undertake more strongly than currently.

Some participants sensed that the current system is producing doctoral graduates who are at the same time both over-qualified and under-qualified in different respects. It was felt that there needed to be honest conversations with prospective and current PGRs about the labour market, including within academia. External mentors and co-supervisors were thought to be crucial in bringing in such understanding of the labour market outside academia. Some stakeholders felt that it currently could be as competitive to get a job in the museums and culture sector as it is to enter an academic job, which was not widely known by PGRs. The question posed was whether the sector should be more honest about the 'value' of doctoral study in disciplines like fine arts, where there are few external jobs, and whether the current system was setting PGRs up to fail by training them in areas where there are few employment opportunities.

In terms of future employability, the CDP model was seen by some as particularly effective, in developing a researcher who is conversant with research and contemporary research techniques but has also been deeply embedded in an external working environment and so is fully equipped to practise outside academia.

**The drive for more interdisciplinary research.** Stakeholders with a good awareness of AHRC strategies felt that its current intention to facilitate an increase in collaboration and interdisciplinarity was wise and should continue. It was accepted that effort continues to be needed to break down traditional disciplinary silos. Some felt that most of this focus on interdisciplinary research was at doctoral level, which could mean that other A&H academics needed to engage more in interdisciplinary research (both within and beyond their institution) for PGRs to be supported and have role models, i.e. so that they did not lose any potential interdisciplinary momentum. It was felt that cross-disciplinary supervisory teams would be one way to enhance this, together with more cross-Research Council funding and work generally to reinforce the strategic importance of interdisciplinary approaches. Practically, however, it was acknowledged that as new combinations of disciplines emerge, it can be difficult to find peer reviewers/examiners with appropriate expertise. Anecdotal reports from stakeholders and some evidence from the student survey suggested that PGRs are generally enthusiastic

to meet other PGRs in other disciplines and do value opportunities to engage in interdisciplinary research.

As it can take many years to embed interdisciplinarity or other strategies in the research system, some participants felt that DTP or similar model funding that is provided in 5-year programmes (such as DTP1 or DTP2) is not long enough for deep strategic change to be effected. Longer-duration programmes, or strong consistency between strategies within successive programmes, would be needed for such long-term change.

### **4.3 Value and benefits of AHRC-funded doctoral programmes**

At this point it is useful to review and consider the value of AHRC specifically as a funder of doctoral programmes. Some aspects of this were introduced in Chapter 2, including the role of AHRC as the current largest funder of UK A&H doctoral study, providing a crucial element of the total funding of A&H PGRs. In providing support for fully funded studentships, many stakeholders felt this meant that some PGRs were able to undertake doctoral research who would not otherwise be able to do so, enhancing the number and diversity of PGRs.

*“External funding makes a huge difference to the feasibility of study. AHRC studentships give students who would not otherwise be able to the ability to complete a PhD. They also make full-time study possible instead of part-time, and for both full and PT routes help to keep completion times pegged to norms. There are also EDI implications – self-funded PhD study is generally more accessible to the economically and socially privileged.”*

*“The opportunity for AHRC funded provision would be transformative for students and to the institution, which is not a member of a DTP, CDP or CDT. Therefore, [our] doctoral student recruitment is currently reliant on student self-funding, postgraduate loans, institutional sponsorship, alongside a small number of external organisation collaborations. [Two thirds] of our students are self-funded.”*

As its funded doctoral programmes were seen as market-leading, it was felt that AHRC was valuably setting a standard for other funders to match in terms of the nature of the programmes; many saw AHRC models to be the highest quality in terms of per-student funding, supervision, training and development, as well as providing opportunities for the PGR to access additional funding for specific purposes too. Some felt that as AHRC funding was seen as a badge of excellence, doctoral graduates who had benefited from it could be the most likely to secure an academic position in future.

Participants also felt that AHRC's role was valuable for the health of the A&H disciplines, as it can position its funding strategically and have greater effect than any other funder, in relation to disciplinary coverage or other priorities. This could include sustaining some 'pure' research, while other funders might restrict funding to more applied areas.

AHRC was seen to be a key player in recent growth in doctoral provision in collaboration with external organisations, which enhanced their research capacity and secured an addition to the total of A&H doctoral funding through those organisations.

Respondents to the institutional survey were invited to identify the benefits they obtained from AHRC doctoral funding (if their institution had it). They considered that being able to offer AHRC-funded programmes enabled them to attract higher quality students and increase the number of PGRs, which enhanced their A&H research capacity and could result in critical

mass in certain disciplinary areas. They believed they were able to offer enhanced doctoral training to PGRs, which could spill over to the benefit of some other PGRs in the institution; this enhancement added to their attractiveness as a research institution, with the funding acting as a mark of prestige or a kitemark. In turn, this could make them more attractive to potential high-quality academic staff or better able to retain them, and to increase their chances of obtaining grant funding. Institutions that led DTPs believed this specific role further enhanced their reputation. More broadly, it was thought that through the arrangements they built with staff in partner institutions, for example for co-supervision of PGRs or managing a DTP, they believed that their overall collaboration with other institutions was enhanced.

Those who represented institutions which did not benefit from AHRC funding cited the same range of benefits, when asked to identify what they thought the impact would be if they were able to access such funding.

Individual PGRs funded by AHRC were also asked about the ways in that AHRC funding was valuable to them and any resulting differences it made to their experiences compared with their peers without such funding. Summarised in Figure 4.1, the frequency of the themes of their comments illustrate perceived impacts both financially and experientially. The most common topic of response was that without the AHRC's funding they could not have undertaken their doctorate – which is potentially further evidence that AHRC funding is enhancing access to doctoral study. Almost as many respondents felt that having the funding meant they could focus on their research, studying full-time rather than having also to work.

*“I did not have AHRC funding for my first year, so I can tell a marked difference now that I have funding. I do not have to be working constantly to support myself, and thereby let the PhD fall to the wayside, but can give the full force of my time to my PhD. I am massively less stressed than [in the] first year. It also makes me feel that my research is valuable which was a necessary confidence boost”*

Our interpretation is that these participants were essentially reporting the impact of having full funding for full-time doctoral study (and institutions the benefit of such funding from an external source) – rather than necessarily AHRC's funding specifically. However, AHRC is the largest external provider of full-time studentships, so it plays a major role in increasing the total number of fully-funded PGRs. Although many PGRs in the survey perceived that most of their peers who were not AHRC-funded had to study part time, our understanding of the total A&H PGR profile (see Appendix 1) does not support this, rather suggesting that AHRC funds around one quarter of all full-time PGRs.

Figure 4.1 also shows that many PGRs valued the enhanced access to developmental opportunities that they had as AHRC-funded students, compared with others, and some specifically the chance to access additional financial support (such as student development funding), which opened up more opportunities for them. In these respects, their AHRC funding was regarded as enhancing their doctoral experience.

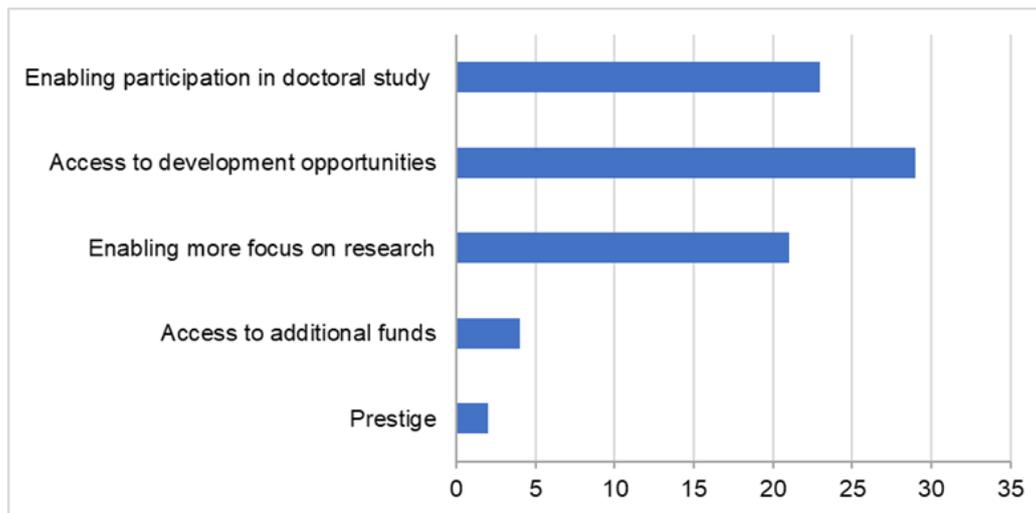


Figure 4.1 Number of open-ended comments on most common themes by AHRC-funded PGR survey respondents asked to identify benefits of AHRC funding (N=77)

That difference in PGR experience reflected widespread perceptions expressed in the other engagement strands in this project about there being two tiers of A&H PGRs in terms of doctoral experience – those with full funding from AHRC, and those without. AHRC-funded PGRs were seen to constitute the highest tier and to benefit from a “*Matthew effect of accumulated advantage*”. Some stakeholders expressed discomfort in having these different levels of provision within their institutions that aimed to provide an equivalent quality of doctoral education provision across their institution.

*“There are so many more opportunities offered to AHRC funded students, including placements, research trips, archival visits, that are not open to, or are not easily accessible for, non-AHRC funded peers.”*

*“The training opportunities have been so amazing - that's the main thing that sets it apart, and I can't imagine having done this PhD without it now.”*

*“[It has been valuable] in every way. Funding itself essential to a PhD, but AHRC funding opens up new venues and exciting opportunities. (AHRC) funding has also allowed me to professionalise my PhD and treat it like a job, which I think is essential.”*

From the foregoing, there is widespread evidence suggesting that many stakeholders believe AHRC's investment in funding doctoral programmes (and studentships) has great value, reinforcing the equally wide view that it should remain a direct funder of doctoral programmes in future. This is an important finding and one which our engagement approach had overtly sought to test, as there could be potential future scenarios in which AHRC invested in doctoral support in a different way and did not directly fund studentships.

## 4.4 Implications for future models and programmes

### 4.4.1 Emerging issues for potential future doctoral models

From the evidence across the strands of this project, we can recognise a number of issues or challenges that arise when considering future doctoral support, some of which appear to be

potential dichotomies. We consider that future models of provision and funding regimes will need to consider:

- How to provide an individual, person-centred experience within a structured, cohort-based programme of study;
- How to balance the requirement for an original contribution to knowledge with ensuring the development of employability of the doctoral graduate in a wide range of potential career settings;
- How to achieve equity of access to doctoral education without ‘detriment to excellence’;<sup>16</sup>
- How to balance the need for pure/fundamental research with the drive to demonstrate impact/innovation;
- How to strike a balance between funding ‘the best’ HE institutions and levelling up or allowing fairer access institutionally;
- How to balance overall funding (including level of stipend) per doctoral researcher with the number of available studentships;
- How to reconcile strategically focused AHRC-funded provision with the overall health of the A&H disciplines.

A number of broader issues also arose through the engagement activities but which may be outside the scope of what can be considered. Three years is increasingly seen as unrealistic as a length of doctoral funding or programme, given the accepted aspirations for more focus on the development of the PGR. Many participants felt it was necessary to extend programme duration to 4 years, which could include 6 to 12 months which could be spent on professional development opportunities and activities. There were also some suggestions that some of this time should be allocated specifically for professional development activities, some of which could be positioned post-submission (of thesis) to support the transition into employment.

Many felt that doctoral programme stipends had become insufficient for PGRs.<sup>17</sup> This was seen to be more acute for those living in regions where the cost of living was high, but especially the case for those with caring responsibilities. Without either a higher stipend or giving PGRs access to some form of additional individual needs-related support funding, it was felt that enhancements to PGR diversity would be limited.

It was widely felt that the preference towards prior Masters study was not aligning with aspirations for greater EDI, due to the lack of access to funding for Masters study, compounded by levels of undergraduate debt. The requirement for a Masters could be a serious disincentive to doctoral study for those without alternative means of support.

Two final issues both related to equity of access and/or provision. It was very broadly felt that AHRC needs to find an equitable way to remove the current two-tier provision within institutions, so that the experience/opportunity gap between AHRC-funded PGRs and others is removed or, at least, decreased. While AHRC-funded programmes should be the gold standard, some ‘levelling up’ of other doctoral programmes, including for the many who are

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<sup>16</sup> This is terminology from the AHRC website <https://www.ukri.org/about-us/ahrc/who-we-are/> “AHRC reflects and supports a hugely diverse research community. We fund world-class research in all the UK’s regions and nations, distributing funds without detriment to excellence.”

<sup>17</sup> UKRI doctoral stipend levels are being reviewed as part of the New deal for postgraduate research: <https://www.ukri.org/what-we-offer/developing-people-and-skills/new-deal-for-postgraduate-research/>

self-funded, could be undertaken. The other aspect in which two ‘tiers’ were recognised was institutional access to AHRC funding, as highlighted at the start of this chapter, with the current situation considered to lock some institutions out of all the benefits of AHRC funding.

*“Spreading funding beyond DTPs is essential, to mitigate the sector divide, and affirmative action around diversification, to effect a sea-change.”*

#### **4.4.2 Principles for future implementation of funded doctoral programmes**

Based on the evidence amassed and insights into the strengths and weaknesses of current provision, as well as some thinking about how contexts will change in future, we developed the following as a set of potential ‘principles’ for future doctoral programme strategies and implementation:

- All AHRC-funded doctoral training would be through cohort-based models;
- All AHRC-funded doctoral models would incorporate collaboration – so that doctoral students can experience a range of academic and other environments;
- Wherever possible, those models would include active participation of non-academic partners so the doctoral student can benefit from as much ‘external’ exposure as possible (through external supervision, working with an external partner, undertaking a placement, training/development opportunities etc.);
- Subject to any broader ‘harmonisation’ context, there should be consistency in the duration and value of stipend within AHRC doctoral funding and any match-funded institutional stipends – with AHRC acting as a leader in such ‘standardisation’;
- The extent of flexibility in mode of study would be greater than now, ideally a continuum from full-time study to ‘very’ part-time (for example, 20%), rather than a binary choice, with the ability for students to adjust their mode of study as much as necessary as their circumstances change;
- The extent of flexibility/personalisation in provision would increase – e.g. offering personalised training programmes, and remote and in-person study/training options accessible to those also working while undertaking a doctoral programme;<sup>18</sup>
- EDI considerations would be fore-fronted in access to, delivery and outcomes of doctoral programmes. The definition of ‘excellence’ would extend beyond academic excellence to recognise the potential of applicants who have travelled less traditional routes into doctoral education;
- As a condition of funding, AHRC could require HE institutions to open up the professional development provision within AHRC-funded doctoral programmes to all A&H doctoral students within their consortium institutions, e.g. through the allocation of matched funding or additional sources of funding, thereby providing more equality of access to provision to all A&H doctoral students within an institution irrespective of their funding, or lack of it.<sup>19</sup>

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<sup>18</sup> Potentially there is learning available from Open University and also Professional Doctorate models, which utilise distant/online study plus specific in-person cohort activities.

<sup>19</sup> The Scottish A&H Graduate School is an example of this sort of ‘widening’ approach.

## 5 Future investment in doctoral programmes and related initiatives

The brief for this project required us to provide options for AHRC's future investment in terms of support for A&H doctoral provision. In this chapter we set out the key elements that we have identified for such future investment. We envisage that options would then be derived from these elements in the form of potential balances or combinations of these elements, in relation to alternative strategic aspirations. Those potential combinations and options are illustrated in Chapter 6. The elements and illustrative balances (options) were tested with stakeholders during two roundtables in summer 2022, which provided confirmatory support for the elements put forward, and further inputs to how they could be combined.

### 5.1 Elements for investment: doctoral programmes

#### 5.1.1 Collaborative doctoral partnerships

Collaborative doctoral partnerships (CDP) are a model of provision currently funded by AHRC through which organisations outside HE with a record in postgraduate research can host a small cohort of PGRs, currently a minimum of three studentships per year. HE institution partners are recruited to register the PGRs, augment the training experience and/or to provide additional capacity where the non-HE organisation has less experience in hosting PGRs. A 'Cohort Development Group' comprising CDP award-holding organisations exists to help them work together to enhance the training and development opportunities available to CDP students, to which AHRC contributes some funding for coordination and support.

Three rounds of such funding have been allocated since 2012, and the next round comprising three annual allocations of studentships (starting in October 2024, 2025 and 2026) recently closed. Fourteen organisations (or consortia of organisations) held awards in the third round. In total, through the CDP model, around 50 studentships are funded each year currently, hence comprising around 15% of all the PGRs directly funded by AHRC.

Evidence within this project suggested that the CDP model has a number of strong and potentially unique features. As the PGRs are hosted by the external organisation, not by an HE institution, stakeholders recognised that these students have the benefit of full immersion in an 'external' (i.e. non-HE) culture which gives them a stronger understanding of such cultures and enhanced employability skills – making them very employable in such organisations in future. Stakeholders involved in CDP arrangements suggested that having a small cohort of PGRs each year for several years enabled the research they carried out to be more strategically significant, in addition to boosting the research capacity and culture of the organisation. Some informants suggested that the quality of PGRs within the CDP model was particularly high.

Our conclusion from the evidence is that the CDP model should be continued and expanded to some extent in future. We do acknowledge, however, that the current range of organisations which have CDP awards has been relatively restricted – and the types of organisation potentially not the most innovative – although consortia arrangements have made this more inclusive to some extent. We accept that some adjustment of the financial model, or the availability of separate funding for capacity building in smaller non-HE organisations, may be necessary to expand the range of organisations able to host cohorts of PGRs through this model.

### **5.1.2 Doctoral training partnerships**

DTPs currently comprise the largest portion of AHRC's support for doctoral study, by some way, with around 400 new studentships supported each year. The DTP model works by AHRC providing block grants to consortia of HE institutions (together with external organisations) which work in partnership. Studentship places are advertised and awarded by each consortium on an annual basis. Two rounds of DTP funding have taken place, each constituting a five-year sequence of annual cohorts. In the second, DTP2, the first cohort started in October 2019, and the fifth will do so in October 2023. DTP2 supports 10 consortia, which in total include 67 HE institutions. The DTP1 programme was independently evaluated by CRAC-Vitae recently.

DTP1 and DTP2 have operated on the basis of regional consortia of HE institutions, typically each led by a large and research-intensive institution, with some degree of partnership with non-HE organisations which can be local or more widely spread.

Evidence here confirms that there is a high level of acceptance that the DTP model has great strengths in the enhanced opportunities offered to PGRs for development and training, including placements/internships, as well as the benefits of training in a cohort environment, which facilitates further opportunities including peer support. The quality of supervision is considered generally to be higher than average, with all PGRs having at least one co-supervisor and a large proportion having the additional supervisor/s located in a different institution. PGRs studying in DTPs are widely considered to be the 'top tier' of PGRs based on their preferential access to funding and opportunities for training and development; the DTP is essentially the current gold standard for UK doctoral programmes.

Although we are not party to detailed financial arrangements, it is understood that the DTP model is relatively expensive (per studentship). The expense of the DTP 'wrapper' is considerable in comparison with the cost of a model that would cover only programme fees and stipend; a rough comparison suggests that if only fees and stipends had to be covered, 2-3 times as many studentships could be allocated, compared with the total in current DTP arrangements. However, in spite of the high cost, stakeholders believed that there was significant added value in the DTP model.

Despite that overall cost per studentship, some partners in current DTPs consider that the demands made upon them in terms of administration and management, and for match funding through provision of additional studentships funded by the institution, may not be sustainable. However, most of the institutional survey respondents from institutions not currently obtaining AHRC funding expressed the desire to enter a DTP arrangement if they could. Those who had entered such partnerships recently, in DTP2, revealed some of the benefits they hoped for had ensued, including not only the chance to host more PGRs but that there were reputational gains and positive spill-over effects.

There remain, however, some reservations about the DTP model. The greatest, most passionately expressed by those at institutions not currently in a DTP, is that it is not inclusive in terms of institutional coverage, with many Post 92 and some specialist arts and other institutions currently 'locked out'. Addressing this issue, so that more institutions can access the funding, is crucial in future development and implementation of the model.

There were also concerns about the dominance of certain lead partners, so that smaller partners were having to compete for very small numbers of studentships. The current model devolves recruitment entirely to the DTP, which causes a certain amount of duplication of effort or competition between DTPs and institutions (as prospective PGRs apply to more than one

DTP, and/or to more than one institution within a consortium) but also limits the potential for recruitment or disciplinary coverage to be strategic when viewed at national level. It is widely acknowledged that despite aspirations for DTPs to enhance the EDI of the total PGR cohort, relatively little progress has been achieved in this respect, overall.

We believe the DTP should continue as a model of doctoral training support, although its implementation in future could be adjusted to support AHRC high-level strategies more strongly. Currently, it is assumed that the model is designed to optimise geographical coverage, through the use of regional consortia. However, with the growth of remote working and collaborations post-Covid, there is the potential for collaborations to be based on factors other than locality, such as disciplinary or other common interests. Thus, one or more DTP programmes could be deployed to support different key AHRC strategies, which could promote EDI, and/or interdisciplinarity, for example. Key issues for further consideration, however, include how to make the model more inclusive in order that more institutions can take part, in a fair way, and the range of scale/s on which DTPs could operate. We were not able to ascertain the minimum effective scale for a single DTP, although a viable cohort of PGRs per year is essential. It is also possible to conceive of a single DTP covering the entire country, at the other extreme.

### **5.1.3 Cross-Council programmes**

A common theme in discussions with stakeholders has been the expectation that in future A&H researchers should play a more extensive role (than now) in tackling major global and societal challenges. It is accepted that responses to these challenges will be most effective where there are multi-disciplinary approaches and more team-based research, reflected in UKRI's commitment to collective working in its recent Corporate Plan, within which one of the principles for change is more connectivity across disciplines and sectors.<sup>20</sup> Many stakeholders firmly believed that A&H researchers could especially bring new approaches to tackling these difficult problems, which could be more creative, but also have more ability to handle ambiguity and to switch mindsets, skills which researchers from STEM, typically, might lack. In order to develop more inter- and cross-disciplinary research capacity, foster the skills that researchers need to work in such teams and cultures effectively, and build in some A&H researchers the confidence to work in this way, AHRC could seek to partner with other Research Councils to participate in ground-breaking, cross-disciplinary doctoral programme/s. We have not, within the scope of this project, developed this concept further, although we are aware that there are some existing partnerships between Research Councils for specific research programmes which could be built upon.

## **5.2 Cross-cutting investments**

In this section we identify a range of potential further investments that we believe would add significant value as part of AHRC's total investment in doctoral support. For clarity, our working assumption has been that any such additional investment elements would need to come from the same 'pot' of money, that comprises its support for doctoral programmes, i.e. any such cross-cutting investments would reduce the amount spent directly on the doctoral programme elements. This was also made very clear to the stakeholders who assisted with validation of these ideas.

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<sup>20</sup> <https://www.ukri.org/wp-content/uploads/2022/08/UKRI-190822-CorporatePlan2022to2025.pdf>

### **5.2.1 Additional individual student support**

Given the almost ubiquitous attention given by stakeholders about the need to enhance the diversity and inclusiveness of A&H doctoral study, it is perhaps not surprising that we suggest here some overt additional support for certain types of student. This is partly grounded in the recognition that recent implementation of DTP and CDP programmes has not resulted in significant advances in terms of EDI, despite stated aspirations from AHRC for enhancement during the design and implementation of provision by DTPs. It could also respond directly to several of AHRC's current EDI policy aims:<sup>21</sup>

- *“address barriers to equality and diversity in arts and humanities research and encourage the development of programme content to enhance the diversity of its component disciplines;*
- *achieve greater representation of racial and ethnic minorities and persons with disabilities in arts and humanities research;*
- *offer and advocate support for arts and humanities researchers from racial and ethnic minorities and with disabilities through the various stages of their research careers.”*

One of the clear messages coming from academic staff and current students was that PGRs in certain circumstances can struggle to cope financially, even when receiving a full stipend. This would particularly be the case for those with a family to support, or with caring responsibilities or limited capacity through disability, that could restrict their opportunity to undertake subsidiary work to augment income. It was widely believed that lack of access to additional funding on the basis of individual need was limiting the range of people who could access doctoral study. The group whom this might most strongly affect was thought to be mature students, as they were the most likely to have financial commitments to family or caring responsibilities, and of whom many might be considering doctoral study from a position of employment which could be more secure financially.

We fully appreciate that there could be other groups of PGRs or, perhaps more important, prospective PGRs, as deserving of extra support as those with additional responsibilities of the kind outlined. At the heart of this proposal is the provision of an opportunity for additional, needs-related funding that could be accessed by an individual in response to their particular needs and circumstances, beyond their stipend.

One potential response could be for AHRC to provide – through a mechanism yet to be determined – some kind of funding for supplemental support to accommodate the needs of the PGRs in its funded programmes. We anticipate that this idea could be countered by suggestions that institutions should themselves provide additional needs-based support, or that such additional funds could be provided through a revision to DTP arrangements (i.e. requiring institutions to provide this, potentially with metrics to encourage and assess its deployment). While those options for implementation are practically possible, we want here to emphasise the potential importance we attribute to additional, individual needs-based support, as a means to increase and sustain access to doctoral study for those with greater needs (thereby contributing to greater EDI), and hence include it as one of the range of cross-cutting investment elements.

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<sup>21</sup> <https://www.ukri.org/about-us/ahrc/our-policies-and-standards/equality-diversity-and-inclusion-policy/>

### **5.2.2 Widening external partner engagement**

Elsewhere in this report we have noted the value of doctoral programmes where the PGR spends time embedded in a non-HE ('external') organisation, including the CDP model where the PGR is hosted by that organisation – which is one of our elements for future investment and potential expansion where it aligns with overall strategic priorities. A lesser but nonetheless highly valuable experience can be available to PGRs in the DTP model, through placements or internships with external organisations in the partnership. The value of such activities increases with the extent to which the PGR is embedded in the external organisation.

It has also been clear from stakeholders that the current cost of entry for external partners to engage deeply in collaborative doctoral arrangements, to the extent required for there to be high value to the PGR, is relatively high. Even the larger organisations in current CDP programmes feel that the administration and management costs are potentially unsustainable. The financial burden is thought to limit the number and range of external organisations that can engage deeply in partnerships, that is to say sufficient to host PGR studentships or partner in a way that offers PGRs an opportunity to become immersed in the external organisation's culture and increase its research capacity. This almost certainly requires more substantive engagement than to host a single three-month placement.

In order to expand the number of external partners that could sustain such deep roles in partnerships, ideally but not exclusively within the CDP model, we suggest that AHRC diverts a portion of its total doctoral investment into additional support for external partners. In the same way that additional support for individuals, to enhance EDI, could potentially be achieved through a revision to funding arrangements for existing programmes, we think the importance of widening external partnerships is sufficient to merit its consideration as a separate element of investment.

In such consideration, it is important to point out that the number of external organisations which are large enough to have capacity to host a cohort of PGRs, i.e. within a CDP model, is limited, so some form of consortium arrangements may need to continue (as exist now in some CDP awards). Equally, the range of types of organisation will be important, as large and long-established organisations, such as national museums or libraries, may not be the most agile or innovative research environments – so some increase in that range would be highly beneficial, in addition to expansion of the number of organisations able to engage.

### **5.2.3 Advocacy for the value of A&H research and researchers**

During our discussion of the emerging investment elements, and potential combinations of them as options, with AHRC senior staff and stakeholders during Stage 3 of the project, the issue of advocacy was perhaps the most contentious. Many assumed that there was no need for discrete additional investment in advocacy, which would have to come from the total investment in doctoral provision and support, because it was considered to be a 'core' activity for AHRC (with a tacit assumption that its cost would come from a separate budget). However, given the constraints on the size of AHRC's overall budget and based on how strongly stakeholders believed in the importance of more advocacy, we have nominally positioned this within the doctoral funding budget.

Stakeholders consulted during interviews and roundtables, and through the institutional survey, were unequivocal in their belief that AHRC needed to fight the A&H corner more strongly than it does now. While some appreciated that its work in this area is more effective currently than it used to be, it was felt that a step-change upwards was needed. Some

participants in our engagement activities simply felt that greater effort was needed to argue for the value of the A&H disciplines and research, in the face of a policy tide that increasingly favours STEM disciplines (as a result of which, they believed, the share of total public research funding going to A&H research would continue to drop). However, rather than this ‘fairness’ issue, a more persuasive argument is that A&H research and A&H researchers have the potential to play a far stronger role in the interdisciplinary responses to the major challenges that confront the world and society than they do now. A&H researchers can bring different approaches to team-based science/research that researchers from STEM tend to lack or struggle with – including more creative approaches. Their ability to progress within an environment of uncertainty or ambiguity is thought to be high (typically higher than those with scientific training, who tend to require the certainty of an underpinning theory which enables them to understand what would constitute a ‘logical’ course of action). In a world where there is increasing uncertainty and change, A&H researchers’ ability to switch mindsets, or maintain more than one, could greatly enhance overall capacity to confront research challenges and problems. These potential roles and their value need to be highlighted, so that A&H researchers play more than a token role in interdisciplinary research.

AHRC is considered by all stakeholders to be the key advocate for A&H research and the skills and attributes of A&H researchers. For these reasons, and to underline the importance we attribute to this role, such advocacy is identified as a discrete element of future investment, the extent of which would depend on strategic priorities adopted. For example, if there is a higher focus on interdisciplinary research within AHRC’s strategic priorities, we would anticipate that the extent of additional investment in advocacy would be higher. Given the scope and constraints of this project, we have not considered in any detail the potential future resourcing or specific activities that would be appropriate, as that would require detailed knowledge of the current expenditure, resourcing and activities by AHRC in this area.

#### **5.2.4 Building national capacity for research skills**

There was a consistent message from stakeholders across much of the project that current UK doctoral provision as a system does not have the capacity to provide sufficient development for researchers in a range of key skills, particularly when considering emerging skill needs. This acknowledges that the A&H disciplines are very diverse and the total extent of doctoral funding has to cover that diversity of disciplines as well as the extensive range of institutions engaged in some way in A&H research. This results in resourcing that is thinly spread, albeit unevenly. Yet research in certain disciplines, or in important niches within disciplines, requires researchers to have highly specialist skills and, in some cases, access to very specialised equipment or facilities. Institutions cannot all be expected to provide such facilities or the expertise and resourcing needed to train researchers in these techniques and approaches. Accordingly, the system needs to sustain and make use of centres of specialism, whose capacity can be accessed by researchers across the country. To some extent, the Centres for Doctoral Training (CDTs) in which AHRC until recently invested were a response to the need to provide specialised developmental capacity, in particular application areas such as heritage, although these were focused on providing additional doctoral funding.

A response identified by numerous stakeholders was for AHRC to invest in a range of national centres (or hubs or networks, as the notion of a ‘centre’ suggests a single location, which may not be appropriate or most effective) which develop critical in-demand research skills or research-related skills. In order for these to be cost-effective, and have most impact, it is suggested that these should be open to all A&H PGRs and researchers at other levels, not

just AHRC-funded PGRs. In this way, the concept is quite different from that of the CDT which is a locus for doctoral training in particular. We envisage that a 'national centre' of this kind would also train HE staff more widely, in order to expand the scale of skill development and enhance total UK capacity in these particular skills.

Some of the skills areas that emerged as important in future included digital humanities, digital research methods, qualitative research methods, and also related skills such as innovation-related creativity, or interdisciplinary research approaches.

We are aware that AHRC is embarking on some activity of this kind already, such as through its recent 'Embed digital skills in arts and humanities research' call. Equally, there are models in other disciplinary areas, such as ESRC's Centre for Research Methods or Business & Government Data Research Centre, although the national Q-Step programme to enhance quantitative skills in social science – which operates at a range of lower levels – could be an equally appropriate exemplar from which to draw inspiration.

We therefore suggest that development of and sustaining a number of such thematic national research skill 'centres' (perhaps 5 or 6 in total) merits separate investment, as a complement to doctoral training programmes.

## 6 Illustrations of strategic options

### 6.1 Options

As previously noted, the brief for this project was not to make specific recommendations for AHRC's future support for doctoral provision, but to lay out a range of options for it to consider. In Chapter 5, we described the key elements we have identified as worthy of investment within AHRC's overall doctoral funding spend. In practice, the options available to AHRC are simply the range of potential combinations of those elements, i.e. different balances of the elements. Here we avoid specific recommendations of such balances, but instead illustrate how different balances of the elements could be appropriate depending on how AHRC seeks to balance its own strategic priorities. These illustrations were reviewed by stakeholders in two roundtable events, to provide some sector input to validate the balances suggested and also to test the robustness of elements of investment by considering their validity within these different potential contexts.

### 6.2 Potential strategic foci

Drawing on the AHRC's priorities articulated within its recent vision document,<sup>22</sup> we hypothesised four different 'strategic contexts', each of which is essentially focused upon one strategic aspiration. In practice, of course, AHRC will not pursue any single strategic aspiration, at the expense of others, and so the context in which its investment balance would be determined will be a combination of these different strategic foci and balance of priorities.

- A. **Disciplinary & cultural health.** Acknowledging the challenges facing the A&H disciplines, in this context the focus for doctoral funding is to maintain UK capability for research in the A&H disciplines, sustaining research capacity by ensuring there continues to be a body of researchers working in these areas, and securing the long-term health of the disciplines.
- B. **Societal challenges & interdisciplinary collaborations.** In this case, the emphasis is on enabling A&H research and researchers to help to solve global economic and societal challenges, through multi-disciplinary research approaches and teams. Interdisciplinary approaches and capacity are highlighted.
- C. **Innovation, skills & creative economy.** Here the focus is on developing researchers who will drive innovation and provide the skills that the creative and cultural sectors require. There is emphasis on working more closely with leading creative/cultural sector partners, and also developing the types of skills in researchers that support innovation.
- D. **Enhancing the research environment.** AHRC's balance of investment in this case would be targeted to enhance access and participation in doctoral education generally, to make it more diverse and inclusive.

In order to expand the range of contexts and options to be tested, we deliberately added two further, more extreme, doctoral funding scenarios. One of these was the hypothesis that AHRC cease any direct funding of studentships, and instead focus entirely on investing in cross-cutting initiatives and enhancing research training and the research environment for all A&H PGRs. In practice, due to the universal support from all stakeholders consulted that

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<sup>22</sup> <https://www.ukri.org/about-us/ahrc/who-we-are/>

AHRC should remain a direct funder of doctoral programmes, this scenario was quickly dismissed.

The second was, in essence, the reverse, hypothesising that AHRC should only invest in direct funding of PGRs, slimmed right down so that it funds only the programme fees and stipend for each PGR. It would not fund the 'wrapper' of training and development opportunities that constitutes a DTP or CDP programme, nor any cross-cutting investment initiatives, assuming that all of these would be provided by institutions. While this end-member option seems extreme, it could have some merit as the same total investment could fund two to three times as many studentships as currently. In that respect, institutions without funding from AHRC might find some attraction in such a model, as their chances of having some funded PGRs would presumably rise. It also takes into account that the quality of institutional doctoral provision and associated support has, overall, risen considerably across the UK in the last twenty years, since the Roberts Report.

In the following sections, we consider in turn the balance of investment elements that could be appropriate, for each strategic context. This exercise is provided to illustrate a range of potential balances (options), depending on AHRC's overall strategic prioritisation. We emphasise that, in reality, none of these options is likely to be desirable, but rather the most attractive option will be a combination of investments drawn from across these illustrative options. Nonetheless, we found the exercise useful to illuminate how the different elements of investment could support different priorities.

### **6.3 Balancing the investment elements – potential options**

Table 6.1 summarises how we envisage different combinations of the investment elements for each of the found strategic contexts described above. In addition, we have included the 'wrapper-free' hypothesis mentioned above, where investment was limited only to direct funding of fees and stipends. A benchmark is also provided in the form of an estimate of the current balance of expenditure which, for simplicity, is assumed to be only existing DTP and CDP programmes. The proportions of potential investment on each element are expressed as percentages of a fixed total funding envelope.<sup>23</sup>

It should also be noted that within Table 6.1 there is an indication of a particular strategic focus for DTP investment, which differs for each of the illustrative contexts. This was introduced on the understanding that the DTP model has the potential to be tailored to a particular strategic emphasis through different implementation principles.

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<sup>23</sup> In the validation roundtables we conducted, a hypothetical total budget was stated, in order to illustrate the potential monetary extent of each investment, which could aid assessment of its viability. That total budget was given as £30 million per year, which is not wildly different from AHRC's current expenditure on doctoral support. We emphasised to participants that this was an entirely hypothetical figure purely for purposes of illustration, nor a prediction.

STRATEGIC FOCUS	Doctoral programmes				Cross-cutting investments				Total
	CDP	DTP	Focus for DTP	Cross-Council	Student support	Partner support	Advocacy	Skills capacity	
<b>A</b> <b>Disciplinary &amp; cultural health</b>	13%	80%	<i>Disciplines</i>	0	2%	0	2%	3%	100%
<b>B</b> <b>Societal challenges &amp; interdisciplinary collaborations</b>	12%	62%	<i>Inter-/cross-disciplinary research</i>	15%	2%	2%	4%	5%	100%
<b>C</b> <b>Innovation, skills &amp; creative economy</b>	25%	55%	<i>Innovation &amp; skills</i>	5%	0	5%	2%	8%	100%
<b>D</b> <b>Enhancing research environment</b>	15%	65%	<i>Access and inclusion</i>	3%	8%	2%	2%	5%	100%
<b>'Wrapper-free'</b>	100%			0	0	0	0	0	100%
<b>Current balance</b>	15%	85%		0	0	0	0	0	100%

Table 6.1 Illustration of balances of investments given different strategic priorities

We now provide brief description and justification of the proposed balance of elements for investment in each strategic focus:

- A. **Disciplinary & cultural health.** If AHRC's strategic focus is upon sustaining UK capability for research in the A&H disciplines, and maintaining continued research capacity to secure the long-term health of the disciplines, we envisage most of the investment in doctoral funding would be on studentships. Here we anticipate that the DTP model would have a disciplinary focus, but we suggest small new investments to enhance the diversity of PGRs, enhance AHRC's work advocating for the value of the A&H disciplines within society and also bolster national skill capacity development (through the proposed national 'centres', potentially for certain research skills). In practice, other than those new investments, this option would be closest to the current balance of doctoral funding by AHRC, although some adjustments within implementation of the funding programmes would be beneficial to improve its effectiveness in delivery against the strategic focus.
- B. **Societal challenges & interdisciplinary collaborations.** In this case, the focus instead is to drive the capacity of A&H research and researchers to help address societal and global challenges, so that they could engage effectively in multi-disciplinary research approaches and teams. The proposed balance of investments shifts so that expenditure on DTP programmes reduces markedly, with a significant new investment in the new Cross-Council doctoral programmes that we envisage. The DTP programme itself would move to a greater focus on interdisciplinary research. In order to support the increase in interdisciplinary capacity, investment is diverted into greater advocacy effort (to promote and demonstrate the value of A&H researchers within multi-disciplinary research teams), to enhancing the capacity of A&H researchers to work in this way (through the national skills centres, some of which could focus on this skillset) and slight expansion of the non-HE partner base where external organisations are key to this type of research. Modest investment in student support is factored in to reflect AHRC's ambitions in relation to diversity and inclusion.
- C. **Innovation, skills & creative economy.** Under this strategic imperative, the focus would be on developing A&H researchers who could drive innovation and provide the skills with which organisations within the creative and cultural economy will advance and thrive. There is increased emphasis on working more closely with leading creative/cultural sector partners, hence a higher proportion of doctoral programme investment through CDPs (supporting research that aligns well with their needs) as well as a small amount into relevant Cross-Council programmes (such as in the digital area). This requires a significant reduction to the amount of investment in DTPs, which would in turn also focus more on innovation-related skill development. In order to support these shifts, there would be a more substantial new investment in order to expand the non-HE partner base, and in national skills capacity-building through the proposed centres (some of which would overtly focus on developing relevant creative, innovation and translational skills). There would also be modest investment to enhance the advocacy role, to reinforce the impact of the other investments.
- D. **Enhancing the research environment.** Improvement to the equality, diversity and inclusion of A&H research endeavour is known to be a strategic priority for AHRC and, in this scenario, AHRC's balance of investments reflects that intention, being targeted to maximise EDI in access to and participation in doctoral education. The total extent of doctoral programme support is slightly lower than currently, however, with slightly higher investment in the CDP model and a small new investment in Cross-Council programmes

(acknowledging that these could tap more diverse groups than the ‘traditional’ cohorts which tend to exist in many DTPs). Implementation of DTP programmes would also be revised in order to optimise widening of access, for example with flexibility to fund some Masters study. To support the focus on EDI, as would be expected, significant investment in additional, individual needs-based support would be introduced, along with modest expenditure on all the other cross-cutting investment elements, all tailored to some extent towards enhanced diversity and inclusiveness of participation.

## **6.4 Selection from illustrated options**

Finally, we emphasise that in developing this report, and providing evidence drawn from the engagement and research activities that underpinned it, we were not tasked with devising any single recommended option or options. Rather our approach has been to set out what we consider to be the most effective potential elements for future investment, and to attempt to show how AHRC’s total investment in doctoral provision could be deployed across such elements. The balance of elements selected will depend upon the balance allotted to AHRC’s various strategic priorities, which is beyond the scope of this project. For that reason, its options are unlikely to be those specifically depicted in this chapter for illustrative purposes, nor are these illustrative scenarios in any way recommendations. Nevertheless, we hope that the evidence, arguments and options presented here prove valuable to AHRC in its consideration of its future investment in doctoral education. Irrespective of that utility or effectiveness, we are grateful to the wide range of individuals and stakeholders who gave their time to input to our evidence-gathering activities, without whose generosity and openness the project could not have been undertaken.