Stephen Hawking Fellowship Reviewers Guidance

Throughout this document the use of 'UKRI' refers to STFC and EPSRC acting on behalf of UKRI.

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General

These notes are intended to provide reviewers with specific guidance for the completion of the reviewer form. They should be read in conjunction with the reviewer principles. Specific guidance is available for each individual section of the report you are completing. A full justification for your assessment of the proposal should be provided. The prompts are given as a reminder of those issues that are likely to be most significant in determining the overall merit of a proposal. Please provide as full a response as you believe you are qualified to. You should note that your review will be sent back, unattributed, to the investigator, who will then be allowed the opportunity to comment on any factual errors and answer any specific queries you have raised.

Conflict

Before completing a review please ensure that you do not have a conflict of interest with the proposal. UKRI, as a publicly funded organisation, is accountable to Government and the public for its actions and the way it conducts its business. UKRI has a conflicts of interest policy in place to protect both the organisation and the individuals involved in providing it with knowledge and advice and to reduce the risk of impropriety or any perception of impropriety. We request that you make yourself familiar with the policy available at https://www.ukri.org/files/termsconditions/ukri-conflicts-of-interest-policy-pdf/

Assessment methodology

You are asked to assess the proposal against a number of criteria. You are asked throughout to assess "the proposal" but please be clear that this means the ideas, concepts and approaches contained therein not the specific form of the document itself. The clarity of presentation may help or hinder your ability to review a proposal, so a comment to this effect would be appropriate, but this should not become in any form a competition in stylish writing. Elegance of presentation is not of itself an assessment criterion for the call.

There is no set way for answering questions on the form. However, prioritisation meetings generally find reviews most useful where they explicitly identify the main strengths and weaknesses in the proposal, while also giving a clear view on which should be accorded the greater significance and why. It is also a helpful technique to raise issues or concerns with the proposal in the form of explicit questions for the applicants. This makes it easier for the panel to assess how complete and convincing the applicants responses are.

COVID-19

UKRI recognises that the COVID-19 pandemic has caused major interruptions and disruptions across our communities and are committed to ensuring that individual applicants and their wider team, including partners and networks, are not penalised for any disruption to their career(s) such as breaks and delays, disruptive working patterns and conditions, the loss of on-going work, and role changes that may have been caused by the pandemic.

When undertaking your assessment of the research project, you should consider the unequal impacts of the impact that COVID-19 related disruption might have had on the track record and career development of those individuals included in the proposal, and you should focus on the capability of the applicant and their wider team to deliver the research they are proposing.

Ethics

It is important that UKRI funds are used ethically and responsibly but this is mainly assured by requiring that universities have in place and operate appropriate ethical approval processes. Ethical considerations should not therefore normally be an assessment criterion and you should not take these into account when making your assessment.

If the proposal is in a subject or area that causes you serious personal concern, to the extent that you feel you cannot provide an objective review, then you should decline to review the proposal giving the reason as other, and stating "ethical issues" in the comment box. If you have a concern that the proposal raises ethical issues that have not been clearly identified or addressed, then you should raise this directly with UKRI who will need to make a policy decision on how the proposal should be treated.

Web links in the proposal

The proposal you are asked to review includes a case for support. In some instances, the case for support may include a link to a web site containing information on the research proposed. Reviewers are not required to consider this additional information when providing comments on a proposal. If you do choose to look at this information, it is possible that your anonymity to the applicant will be compromised.

Call for proposals

This proposal has been submitted in response to a published call. You are asked to read that call document and to make your assessment of the proposal within the context of the aims, objectives and specific assessment criteria for that call. The call document can be found via the EPSRC/STFC and UKRI call pages.

Journal-based metrics

We are committed to support the recommendations and principles set out by the San Francisco Declaration on Research Assessment (DORA). You should not use journal-based metrics, such as journal impact factors, as a surrogate measure of the quality of individual research articles, to assess an investigator's contributions, or to make funding decisions.

For the purpose of research assessment, please consider the value and impact of all research outputs (including datasets, software, inventions, patents, preprints, other commercial activities, etc.) in addition to research publications. You should consider a broad range of impact measures including qualitative indicators of research impact, such as influence on policy and practice.

The content of a paper is more important than publication metrics, or the identity of the journal, in which it was published, especially for early-stage investigators. Therefore, you should not use journal impact factor (or any hierarchy of journals), conference rankings and metrics such as the H-index or i10-index when assessing UKRI grants.

Flexible Working

It is important that researchers and their research teams are able to work flexibly and in a way that meets their personal circumstances. EPSRC therefore allows applicants to tailor the support that they request in order to facilitate this. This might include, for example; part-time working for the PI, Co-Is, PDRAs, Technicians or wider team costed on a grant; support for costs over and above standard care arrangements to allow the PI or their team to attend activities associated with the grant (e.g. conferences) where costs cannot be met by the employer; and/or support for other

adjustments and adaptations that may be needed due to the personal or health circumstances of the PI or their team.

You should also consider the unequal impact that flexible working, alternative career routes and career breaks might have had on the track record and career development of those individuals included in the proposal. Flexible working could include but is not limited to; reduction in full time hours, long term partial return to work, job sharing, compressed working hours, term-time only working, annualised hours.

Where applicants wish to include details on flexible working and/or a career break for reviewers to take into account in their assessment they are not required to explain the personal circumstances that resulted in the need for this, instead they should describe the impacts on an individuals' track record and career development. Where reference has been made to a period of flexible working or a career break you should recognise that this is likely to affect productivity and career development, for example, publication record, track record of securing funding, ability to build networks or to take up opportunities in a different geographical location. You should also consider that this unequal impact may continue beyond a return to work, as such the focus should be on the stated impact and less on the duration.

Quality/Excellence

There is no simple definition of excellence. Proposals may build directly on prior work, or may involve a speculative leap forward. It may involve progress along an established research direction or a tangential switch into a new or different area, or may bring together expertise and approaches from different discipline areas. All of these approaches could demonstrate excellence so your judgement should not simply be based on which approach has been adopted.

A proposal that demonstrates excellence can be characterised by terms such as: novel, ambitious, timely, exciting, at the international forefront, adventurous, elegant, or transformative but need not demonstrate all of them. Normally you might expect to see a plausible hypothesis with some basis within the published literature, and some clearly identified objectives that sensibly test that hypothesis. Certainty of outcome is not an indicator of excellence, but neither is an incremental approach necessarily an indicator that a proposal lacks excellence.

Applicants are asked to set their proposal in context in terms of the current state of knowledge and other work under way in the field. You should comment explicitly on this aspect of the proposal and where possible give your view of where this work would sit in relation to related activity internationally, and the extent to which it would provide the UK with a unique capability. Note that the existence of competing groups elsewhere should not of itself be seen as a reason for downgrading a proposal.

The application should clearly demonstrate the methodology the applicants intend to use to attain their stated objectives, and you should comment on how clearly they are described, how appropriate they are for the planned activity and their scientific or technical feasibility.

The reviewer form asks reviewers to comment on the degree of research excellence of the application making reference to:

- an excellent research programme which is novel and timely
- a robust methodology to attain their stated objectives, which is appropriate and feasible
- a clear vision of the contributions they will make and evidence of independence of research ideas.

For multi-disciplinary applications please state which aspects of the application you feel qualified to assess

Importance

Drawing upon what the applicant has said, reviewers should comment on:

- How the proposed research contributes to, or helps maintain the health of the research field, contributes to addressing key UK societal challenges, contributes to current or future UK economic, social and cultural prosperity.
- The extent to which the research proposed has the potential to meet national strategic needs by establishing or maintaining a unique world leading research activity (including areas of niche capability)
- The potential outcomes arising from the research are identified and plans for maximising their impacts are proportionate, timely and credible.

Applicant and their development

The purpose of this call is to help the best developing research talents in the UK to achieve their potential in becoming leaders in research and in disseminating knowledge through public engagement. You are asked to indicate how well such potential is demonstrated within this proposal, commensurate with the stage they have reached in their career. This does not simply mean they have the capacity to operate at the forefront of knowledge, but that they could be expected in time to develop visibility and demonstrate leadership on the scientific stage and in the wider public.

You are asked to comment on:

- 1. Candidate is at the post-doctoral stage as outlined in the requirements of the call.
- 2. Demonstrates an ability to deliver the proposed research activity.
- 3. Provides a well-considered plan for skills development that is appropriate given their current experience.
- 4. Ability to outline career aspirations and justify why the fellowship is an appropriate route to achieving them.

Fellowship person assessment criteria and person specification - in consideration of this section please refer to the assessment criteria for fellowships with particular reference to 'Applicant and their development' criterion as well as the person specification. There is no need to make any comment or consideration of if the applicant is moving or has moved institution.

Public Engagement

The reviewer form asks reviewers to:

Please comment on the extent to which this application meets each of the criteria laid out in the call document not already covered by your previous answers.

- 5. The candidate has evidenced a history and/or interest in science communication and public engagement through, for example, previous, current, ongoing or planned science communication activities with audiences from a non-scientific background.
- 6. The candidate has set out a clear plan for development and advancement of their own public engagement skills that is appropriate given their current experience, while drawing from any relevant public engagement activates already undertaken.

- 7. The candidate must demonstrate the ability to be, or ambition to become, a clear communicator and disseminator of knowledge (through written, verbal or other means) to both scientific and non-scientific audiences. They should give clear outline plans for the methodology, engagement and development opportunities which will achieve their ambitions.
- 8. The candidate must have a clear plan for public engagement activities for the duration of the Fellowship and have a plan as to how the effectiveness of this engagement will be assessed.

Resources and management

You are asked to comment on the effectiveness of the proposed planning and management arrangements in the proposal. These should be proportionate to the scale and complexity of the activity to be undertaken.

Applicants are required to identify on the application form all resources required for the Fellowship, and to clearly explain the need for these in the justification of resources appended to the case for support. You should comment on how well this has been done and on the appropriateness of the resources requested. As this call is explicitly to support the fellow all their own direct costs should be included and are in fact justified.

Note also that fellowships may be held part-time, to a minimum of 50% of full time equivalent, and can be presented and costed on that basis. You should draw attention to anything in your view that has been requested but not justified or conversely needed but not identified. You should also comment on the suitability of arrangements for accessing resources other than through the grant, such as by collaboration with external groups. Your assessment should be based solely on the resources sought and not on the costs derived from them.

The reviewer form asks reviewers to:

Please comment on the effectiveness of the proposed planning and management and on whether the requested resources are appropriate and have been fully justified. Please comment explicitly on the viability of the arrangements described to access equipment needed for this project, and particularly on any university or third-party contribution. Please also comment on the identification of risks and the appropriateness of the contingencies that are in place.

Animal research and human participation

Where the applicants have ticked any boxes confirming that the proposal involves either animal research or human participation then you are asked to comment specifically on any ethical considerations and particularly on whether ethical approval procedures have been complied with. You should also comment on any potential adverse consequences for humans, animals or the environment and whether these risks have been addressed satisfactorily in the proposal. It is particularly important that resources relating to these aspects are explicitly justified in terms of need, scale and nature of resource, so for example for animal research you should comment specifically on the need to use animals, the choice of species, the number of animals it is intended to use.

Responsible innovation

Responsible Innovation is a process that seeks to promote creativity and opportunities for science and innovation that are socially desirable and undertaken in the public interest. Responsible Innovation acknowledges, that innovation can raise questions and dilemmas, is often ambiguous in

terms of purposes and motivations and unpredictable in terms of impacts, beneficial or otherwise. Responsible Innovation creates spaces and processes to explore these aspects of innovation in an open, inclusive and timely way. This is a collective responsibility, where funders, researchers, stakeholders and the public all have an important role to play. It includes, but goes beyond, considerations of risk and regulation, important though these are.

As a public funder of research, we have a responsibility to ensure that our activities and the research we fund, are aligned with the principles of Responsible Innovation, creating value for society in an ethical and responsible way. As such we recommend that all researchers demonstrate awareness of and commitment to, the principles of Responsible Innovation. Taking an approach that encompasses the following steps, should provide a flexible framework for researchers to use. If you feel that the proposal you are assessing runs counter to these principles please comment on this in the Proposal Assessment section of the reviewer form.

Overall assessment

You should provide your overall assessment of the proposal. Think of this as your report to the prioritisation panel, highlighting the strengths and weaknesses you identified in the individual questions and then making a clear and explicit recommendation about whether or not you believe the proposal warrants funding.

Not all questions carry equal weighting. Research Quality (excellence) will always be pre-eminent and no proposal can be funded without clearly demonstrating this aspect. Research Importance should also be a major consideration in making your assessment. The weighting between the remaining aspects will depend on the specific nature of the particular proposal. You should indicate those aspects that you accorded higher or lower priority and why.

The reviewer form asks reviewers to summarise their view of the application.

Overall Assessment – Overall score

You should assign a score using the six-point scale provided. This should reflect your overall conclusion, and should be consistent with your comments on the individual sections of your review taking account of all the assessment criteria and the various weightings you applied.

The reviewer form asks the reviewer to score the proposal:

- 1. This proposal is scientifically or technically flawed
- 2. This proposal does not meet one or more of the assessment criteria
- 3. This proposal meets all assessment criteria but with clear weaknesses
- 4. This is a good proposal that meets all assessment criteria but with minor weaknesses
- 5. This is a strong proposal that broadly meets all assessment criteria
- 6. This is a very strong proposal that fully meets all assessment criteria

Level of confidence

To assist the prioritisation panel in reaching their overall conclusion on the proposal, and to help UKRI in monitoring the effectiveness of its reviewer selection procedures, you are asked to indicate your confidence with regard to this review. This should report your own confidence, or otherwise, in being able to make your assessment, not your confidence in the success of the proposal if it were funded. If, for any reason, you feel that you are not able to assess the proposal, please advise UKRI accordingly.

The reviewer form asks reviewers to score their confidence as low, medium or high.

Reviewer Expertise

It may be that you feel you can only comment with authority on some specific part or component of a proposal, for example with a multidisciplinary project, or perhaps where there is a strong user-led element. In such a case you should identify those aspects that you are able to comment on, and then give your review on just those aspects. Different reviewers will have been asked to cover those aspects you cannot and the panel will then have the job of integrating these different comments. It is particularly important therefore that the panel have clear advice on the merits of each component. Your comments, scores and confidence level should explicitly reflect your views on those aspects you can assess, and you are asked not to moderate these in any way to reflect those areas you feel you cannot comment on.

A risk with part assessment is that it will miss the added value of the overall project (the whole ideally being greater than the sum of the parts) so even where you can only comment with authority on one aspect it will be helpful to the panel to have your views on how compelling the arguments for the overall proposal are.