Research Assessment Exercise 2026
Panel 1 – Biology
Panel-specific Guidelines on
Assessment Criteria and Working Methods

(October 2024)

Content:

Introduction

1. This document sets out the assessment criteria and working methods that the Biology Panel of the Research Assessment Exercise (RAE) 2026 will apply. It should be read alongside the General Panel Guidelines of the exercise. The provisions set out in this document serve as further elaboration and amplification on the assessment criteria and working methods as applied to the Biology Panel. In areas where no additional information has been specified, the provisions in the General Panel Guidelines will prevail and apply in the assessment process of the Panel. These guidelines do not replace or supersede the requirements for submissions that are set out in the Guidance Notes for RAE 2026.

2. This document describes the criteria and methods for assessing submissions in the Biology Panel. It provides guidance on the type of information required in the submissions. It also provides a single, consistent set of criteria that will be applied by the Panel when undertaking the assessment having regard to any differences in the nature of disciplines of respective units of assessment ("UoAs") under purview. It also provides a common approach to the working methods applied within the Panel.

Section A: Submissions

UoAs under the Panel

3. The Biology Panel will assess universities' submissions from the following UoAs –

Code	UoAs
1	biological sciences (incl. environmental biology, biotechnology, agriculture & food science, veterinary studies)
2	pre-clinical studies

4. The Panel expects to receive submissions whose primary research focus falls within the respective remit of the above UoAs. The UoAs under the Panel's remit cover the full spectrum of the basic and applied biology of all organisms, including basic science underpinning clinical research in medical and veterinary science.

Unit of assessment descriptors and boundaries

Unit of Assessment 1: biological sciences (incl. environmental biology, biotechnology, agriculture & food science, veterinary studies)

4.1 The UoA includes research into and expects submissions on all aspects of biological and biomedical sciences that encompass the full spectrum of the fundamental and applied biology of all organisms, at all levels of organisation from the molecular to the ecosystem, employing a diversity of approaches including experimental, theoretical, computational and mathematical. It also includes research into biotechnology, environmental biology and in all aspects of the agricultural, food and veterinary sciences, including basic through to applied research.

Unit of Assessment 2: pre-clinical studies

4.2 The UoA includes research into and expects submissions on all aspects of the biomedical sciences, including biochemistry,

physiology, pharmacology and anatomy at the genetic, molecular, cellular, organ system and whole organism level. It includes work addressing fundamental mechanisms of disease.

Inter-disciplinary Research

5. The Panel recognises that certain aspects of research are naturally inter-disciplinary or span the boundaries between individual UoAs, whether within the Panel or across panels. The Panel will adopt the arrangements for assessing inter-disciplinary submissions as set out in paragraphs 39-40 of the General Panel Guidelines.

6. Much research in biology is inter-disciplinary and, as a result, the Panel expects to assess inter-disciplinary research where there is significant content in any of the areas of science covered by UoAs 1 and 2, as described in paragraphs 4.1 and 4.2.

Assignment of Eligible Academic Staff in Each UoA

7. Pursuant to paragraphs 7-11 of the General Panel Guidelines, the Biology Panel does not expect to receive information on sub-disciplines in relation to eligible academic staff and their respective research outputs.

8. It is critical that research outputs are assessed by the most appropriate panel. If the Panel suspects any anomaly regarding universities' assignment of eligible academic staff (and therefore their outputs) to research area(s) and UoA(s) under its remit, it will follow the procedures for re-assignment of eligible staff according to paragraphs 10-11 of the General Panel Guidelines. The Panel also recognises its responsibility to handle submissions arising from any re-assignment of eligible academic staff to the Panel.

Section B: Assessment Criteria: Research Outputs

Output Types

9. The Biology Panel will consider the eligibility of research outputs as described in paragraphs 16-18 of the General Panel Guidelines, paragraphs 5.7-5.11 and Appendix E of the Guidance Notes.

10. The Panel will assess the quality of each eligible output on its own merits and not in terms of its publication category, medium or language of publication. The Panel will examine each item in detail and will not assess outputs mechanistically according to the publication venue. The Panel recognises that there can be work of the highest quality in various output forms, and no distinction will be made between types of output submitted nor whether the output has been made available electronically or in a physical form.

11. Forms of research outputs that are admissible and specifically relevant to the Biology Panel include the following examples. This should not be regarded as an exhaustive list. Equally, there is no implication of priority or importance in the ordering of examples in this list –

- Books, book chapters and research monographs.
- Published conference papers and reports.
- New materials, devices, products and processes.
- Patents awarded or published patent applications.
- Published papers in peer-reviewed journals, including peer-reviewed pre-prints. The Panel reminds that the Digital Object Identifier (DOI) of any published supplementary material should be provided in the submission.
- Articles posted on open access pre-print repositories provided that they are not submitted as published.
- Review articles where these incorporate new research, or new hypotheses.
- Software, computer code and algorithms.
- Standards documents.
- Technical reports, including commissioned advisory reports.

12. Research outputs will be assessed for the quality of original research they include. The Panel recognises that the process of peer review entails careful refereeing of papers submitted to academic publishing outlets. The Panel will accept the submission of review articles and book chapters only where they contain a significant component of unpublished research or new insight. Such outputs will be judged only on their original research or novelty of insight.

13. The Panel will consider subsequent editions of previous work only where they contain significant new research. Material that appeared in editions published before 1 October 2019 will not be assessed.

14. Other than the requirement in paragraph 18(a) of the General Panel Guidelines, the Panel does not require a brief statement of no more than 100 words be submitted for each output item to specify the originality and significance of the output.

Double-weighting of Research Outputs

15. Paragraphs 29-31 of the General Panel Guidelines indicate that in exceptional cases a submitting university may request that outputs of extended scale and scope be double-weighted in the assessment. Given the publication patterns in UoAs 1 and 2, this Panel does not expect to receive any items proposed for double-weighting, however.

16. When requesting for double-weighting of an output, universities should submit a statement in not more than 100 words, explaining in what ways the output is of sufficiently extended scale and scope to justify the claim. The Panel will decide whether to double-weight the output on the basis of new research that it contains.

Co-authored/Co-produced Outputs

17. The Panel affirms the principles and arrangements on assessing co-authored/co-produced research outputs as set out in paragraphs 32-34 of the General Panel Guidelines.

18. The Panel will consider co-authorship to be a normal element of research activity in its UoAs 1 and 2, and for outputs with less than 8 co-authors the Panel will accept that all co-authors have made a significant contribution to the research process leading to the output concerned. In the case of an output with eight or more co-authors the university should explain in no more than 100 words the contribution of the submitting author unless s/he is a first or co-first author, or a last or co-last author, or corresponding or co-corresponding author.

Non-traditional Outputs

19. The Panel will handle research outputs in non-traditional form according to paragraphs 35-37 of the General Panel Guidelines. The Panel expects to receive additional information about each non-traditional output in terms of its novelty, significance, method used to ensure academic rigour in the production of the output, deliverables, and dissemination method. The Panel does not expect to receive outputs in a non-traditional form, however.

Criteria and Quality Levels for Assessing Research Outputs

20. Panel members will use their professional judgement with reference to international standards in assessing research outputs.

21. In assessing outputs, the Panel will look for evidence of originality, significance and rigour, and will grade each output into one of the five categories of quality level as set out in paragraph 19 of the General Panel Guidelines. The generic description of the quality levels as set out in paragraph 20 of the General Panel Guidelines will be applied in the Panel's assessment.

22. The Biology Panel provides the following amplifications on the criteria of assessing research outputs –

- originality: will be understood as the extent to which the output makes an important and innovative contribution to understanding and knowledge in the field. Research outputs that demonstrate originality may do one or more of the following: produce and interpret new empirical findings or new material; propose new paradigm shift; engage with new and/or complex problems; develop innovative research methods, methodologies and analytical techniques; collect and engage with novel types of data; and/or advance theory or the analysis of policy practice or standards.
- significance: will be understood as the extent to which the work has influenced, or has the capacity to influence, knowledge and scholarly thought, or the development and understanding of policy and/or practice.

- rigour: will be understood as the extent to which the work demonstrates intellectual coherence and integrity, and adopts robust, precise and appropriate concepts, analyses, sources, theories and/or methodologies.

23. In addition, the Panel provides the following advice on their understanding of the quality definitions adopted for assessing research outputs. The Panel will take into consideration the following characteristics, in particular –

- Scientific rigour and excellence with regard to the design, research method, execution and analysis of the work.
- Whether or not the output has been subject to peer-review.
- Significant addition to knowledge and to the conceptual framework of the field.
- Potential and actual significance of the research both within and beyond the field concerned.
- The scale, challenge and logistical difficulty posed by the research.
- The logical coherence of argument.
- Contribution to theory-building.
- Significance of work to advance knowledge, skills, understanding and scholarship in theory, practice, education, management and/or policy.
- Significance for professional development in veterinary science.

Metrics/Citation Data

24. Pursuant to paragraph 24 of the General Panel Guidelines, the Panel acknowledges that citation data may serve as advisory or secondary information, and that they should not be used in any algorithmic or deterministic way for the evaluation of research quality.

25. The Biology Panel will examine each output in detail for the assessment. The Panel may use citation data to inform its assessment of individual items. These data will not be used in any algorithmic or deterministic way for the evaluation of research quality. The Panel is aware of the limitations of citation data, their variability within and between disciplines, that some excellent work takes time to demonstrate its full achievements and that citation frequently depends on year of publication.

Additional Information on Research Outputs

26. Other than the information required on research outputs as specified in the Guidance Notes, and unless specifically required by the Panel during the assessment process, no other information should be provided. The Panel will take no account of any such information if submitted.

Section C: Assessment Criteria: Research Impact

Range of Impacts

27. The Biology Panel will accept submissions on research impacts that meet the generic definition and criteria as set out in paragraphs 47-49 of the General Panel Guidelines.

28. The Panel will assess the quality of all eligible impact submissions based on their merits on equal footing with no consideration given to the differences among submitting universities/units in terms of staff size, resources and histories. The Panel recognises that research within its remit may have impact in various ways and various spheres whether locally, regionally or internationally.

29. Examples are provided to illustrate the range of potential impacts from research across the Biology Panel in Table A. These examples are indicative only, and are not exhaustive or exclusive. Equally, there is no implication of priority or importance in the ordering of examples in the list.

30. Universities are expected to submit their strongest impact cases and not to align submitted cases specifically with the particular types of impact listed, as an impact case may describe more than one type of impact,

for example a drug may generate both health and economic impact, or an environmental study may increase both biodiversity and tourism.

Table A: Examples of Impact[1]

Impacts on the economy *where the beneficiaries may include industry and society*	• Gains in productivity have been realised as a result of research-led practices. • A spin-out or new business has been created, established its viability, or generated revenue or profits. • Development of new products or processes.
Impacts on the environment *where the beneficiaries may include tourism, agriculture, fisheries, government, and society*	• The management of an environmental risk or hazard has changed. • The management or conservation of natural resources (e.g. water) has been influenced or changed. • Practices or policies affecting biodiversity have changed.
Impacts on health *where the beneficiaries may include patient groups, industry, and society*	• A new diagnostic or medical technology has been adopted. • A new drug or drug target has been licenced by industry. • Decisions by health service or regulatory authority have been informed by research.
Impacts on public policy and services *where the beneficiaries may include non-governmental*	• Policy decisions or changes to legislation, regulations, or guidelines have been informed by research. • Policy or public debate has been stimulated or informed by research evidence.

[1] Examples of impact case studies in RAE 2020 may be accessed online at <https://impact.ugc.edu.hk/> and <https://www.ugc.edu.hk/eng/ugc/activity/research/rae/2020/impactsubmissions.html>. Other examples of research impact as assessed in other jurisdictions may be accessible online such as <https://results2021.ref.ac.uk/impact> from the United Kingdom.

Universities may also refer to examples of impacts and indicators detailed in Annex A of <https://2021.ref.ac.uk/media/1450/ref-2019_02-panel-criteria-and-working-methods.pdf> of the United Kingdom Research Excellence Framework 2021.

organisations (NGOs), government, and society	• The work of public or NGOs has been influenced.
Impacts on quality of life and welfare *where the beneficiaries may include farming, fisheries, food industry, and society*	• Improved food safety and security regulations. • Improved standards of animal welfare. • Improved agricultural practices.
Impacts on education and public understanding of science *where the beneficiaries may include educational institutions, media, and society*	• Changes in school curriculum. • Educational programmes for broadcast media have been influenced. • The development of new museum exhibits has been informed.

Impact Strategy

31. Universities are reminded to set out their impact strategy in the University-level and UoA-level Environment Overview Statements.

Impact Case Study(ies)

32. Following paragraphs 7.7 (a) and (b), 7.9-7.10 and Appendix F of the Guidance Notes and also paragraph 50 of the General Panel Guidelines, submitting units are required to provide a narrative account in each case study that should be coherent, clearly explaining the relationship between the research and impact, and the nature of the changes or benefits arising.

33. Each impact case study should include appropriate evidence and indicators that support the claims for the impact achieved, including who and what has/have benefitted, when the impact occurs/occurred, and the relationship between the case study and how it has/had sustained further innovation and impact. Individual case studies may draw on various evidence and indicators, which may take different forms depending on the type of impact.

34. Examples are provided in Table B to illustrate potential evidence or indicators that may be mostly relevant to the Biology Panel. These

examples are not intended to be exhaustive. Equally, there is no implication of priority or importance in the ordering of examples in the list.

Table B: Examples of Evidence or Indicators for Impact[2]

Quantitative indicators	• Quantitative data relating to cost-effectiveness. • Performance measures (e.g. sales, turnover, profits associated). • Audience or attendance figures.
Documentary evidence	• Documented changes to public policy / legislation / regulations / guidelines / standards. • Evidence of policy or public debate. • New professional codes and standards. • Application or incorporation in professional best practice, training and continuing development materials. • Commercial adoption of new technology, process, knowledge, or concept. • Licences awarded or products brought to market.
Independent testimony	• Formal acknowledgements of and/or evaluations by relevant beneficiaries, bodies and organisations.
Reviews and citations	• Citations and reviews outside the academic literature, e.g. in policy, regulatory, practice documents.

35. The Biology Panel provides the following advice on particular aspects of impact case studies –

- Evidence supporting each impact case should be verifiable.
- The link to underpinning research should be clear.

[2] See footnote 1.

Underpinning Research

36. The Panel acknowledges the level of quality required for research underpinning impact cases, i.e. equivalent to at least 2 star (2*) or international standing, as stipulated in the General Panel Guidelines. Impact case studies should specify indicators of the quality of the underpinning research such as outputs or peer-reviewed funding. Where necessary, the Panel will review the outputs concerned in order to ensure the quality of the research is of at least 2 star (2*).

37. Provided that the Panel is satisfied that the quality threshold has been met, the quality of the underpinning research will not be taken into account in the assessment of the quality of impact. Underpinning research referenced in a case study may also be submitted for assessment under the research output element. The evaluation of the outputs concerned under the impact element is a separate assessment only for assuring the threshold of underpinning research. In this case, the guidance on output types and criteria for assessing research outputs as stipulated in paragraphs 9-14, 20-23 above would apply.

Criteria and Quality Levels for Assessing Research Impact

38. Panels will exercise their expert judgement in assessing the quality of each impact submission, and will not judge in terms of the type of research underpinning the impact cases.

39. In assessing impacts, the Panel will look for evidence of reach and significance, and will grade each impact submission as a whole and give a rating using one or more of the five categories of quality level following paragraphs 53-55 of the General Panel Guidelines. In respect of the Biology Panel, the criteria of reach and significance will be understood as follows –

- reach: the extent and/or diversity of the beneficiaries of the impact, as relevant to the nature of the impact. Reach will be assessed in terms of the extent to which the potential constituencies, number or groups of beneficiaries have been reached; it will not be assessed in purely geographic terms, nor in terms of absolute numbers of beneficiaries. The criteria will be applied wherever the impact occurred, regardless of geography or location, and whether in Hong Kong or

elsewhere. For example, the Panel will evaluate the extent to which society as a whole, communities or individuals have been benefitted from the introduction of a new diagnostic test or food safety standard.

- significance: the degree of beneficial effects to policies, practices, perspectives or awareness of organisations, communities or individuals, constructive change to the prevention or reduction of harm, risk or cost. For example, the Panel will evaluate the degree of constructive change to the prevention or reduction of harm, risk or cost from the introduction of a new diagnostic test or food safety standard.

40. The Panel will make an overall judgement about the reach and significance of impacts, rather than assessing each criterion separately. The criteria will be applied in the assessment of the research impact regardless of the domain to which the impact relates. The quality standards for assessing research impact will be those indicated in paragraph 55 of the General Panel Guidelines.

Section D: Assessment Criteria: Research Environment

Research Environment

41. The Biology Panel will accept submissions on research environment according to paragraphs 57-58 of the General Panel Guidelines. The Panel recognises that excellent research can be undertaken in a wide variety of research structures and environments and has no pre-formed view of the ideal size or organisational structure for a research environment. The Panel recognises the benefit of diversity and equity within a research environment and will regard positively efforts to achieve this as indicated in paragraph 65 of the General Panel Guidelines. The Panel will assess each submission based on what has been presented in relation to the work of the submitting unit in providing and ensuring a good environment.

42. A research environment submission includes one University-level Environment Overview Statement across the same university, and one UoA-level Environment Overview Statement and environment data for each UoA. The UoA submissions may relate to a single coherent faculty and

equally to multiple departments, and may depict the commonalities and dynamics among faculties and departments within the submitting unit, and define their prime activities, how they operate and their main achievements.

Environment Overview Statements (One University-level Environment Overview Statement across the University and One UoA-level Environment Overview Statement for Each UoA)

43. Following paragraphs 9.6 (a) and (b), 9.7, 9.8 and Appendix G of the Guidance Notes, and also paragraphs 59 & 60 of the General Panel Guidelines, the Panel will use the information provided in the University-level Environment Overview Statement to inform and contextualise their assessment of relevant sections of the UoA-level Environment Overview Statement. Submitting units are required to describe how they have supported the conduct and production of research, in the context of the university's policies as set out in the University-level Environment Overview Statement.

44. Within the terms of the Guidance Notes, the Biology Panel will expect in particular to see the following in the –

44.1 University-level Environment Overview Statement

- context and mission: an overview describing the submitting university's size, structure, mission and stage of development in view of its role statement so as to provide a context for the submission.
- research policy and strategy: describing the institutional strategy for research (including research strengths, research focus areas, distribution of research activities across research areas), enabling impact (including stakeholder engagement and knowledge transfer), developing a sustainable research culture (including open access and open data policies, approach to contributing to the Sustainable Development Goals, how inter-disciplinary and collaborative research has been supported, how research integrity and research ethics are embedded in the institution), and how the overall institutional policy and strategy contribute to government priorities.

- people: institutional staffing strategy, staff development and training (e.g. recruitment, leave policies, equality and diversity agenda, measures/facilities for early career researchers/ research students, career development framework and promotions, etc.), and development, training and supervision of research students.
- research funding sources: breakdown by funding source as a percentage total of overall funding; and university-level resources, infrastructure, and facilities available to support research and impact.

In the context of research environment, the university is encouraged to comment on the extent to which generative AI technologies have been addressed, applied or used within any of the above elements.

44.2 UoA-level Environment Overview Statement

In the context of the university's policies as stipulated in the University-level Environment Overview Statement –

- UoA context and structure: submission in this part is expected to briefly describe the organisation and structure of the unit, which research groups are covered in the submission and how research is structured across the submitting unit;
- research and impact strategy: evidence of the achievement of strategic aims for research and impact during the assessment period, details of current/future strategic aims and goals for research and impact; how these relate to the structure described above; and how they will be taken forward; methods for monitoring attainment of targets; new and developing initiatives not yet producing visible outcomes but of strategic importance; identification of priority developmental areas for the unit, including research topics, funding streams, postgraduate research activity, facilities, administration and management;
- research integrity and research ethics: give evidence of the steps taken to ensure that research is undertaken in an ethical manner with rigour, honesty and care and respect for those

involved in the process. Research conducted with integrity leads to findings people can trust and have confidence in. Disciplinary best practice may consider, but is not limited to, issues ranging from approaches to training, ensuring dissemination and accessibility of results, data availability, registration of protocols, ethical compliance, authorship policies, reproducibility, open research, participatory research, the handling of conflicts of interest and intellectual property, and approaches to dealing with allegations of research misconduct and questionable research practices;

- people: evidence of strategic recruitment for research, management, culture and gender equity (academic, research and support staff), staff development and training (e.g. leave policies, equality and diversity agenda, measures for early career researchers, etc.) and evidence of their effectiveness; how individuals at the beginning of their research careers are being mentored, supported and integrated into the research culture of the submitting unit; career development framework and promotions; information on postgraduate recruitment, training and support mechanisms; measures/facilities for development, support and supervision of research students;
- income (e.g. grants received), infrastructure and facilities: information on research funding portfolio; evidence of successful generation of research income; major and prestigious grant awards made by external bodies on a competitive basis; provision and operation of research infrastructure and facilities, including special equipment, library, technical support, space and facilities for research groups and research students; information on joint-university or cross-institution shared or collaborative use of research infrastructure;
- collaborations: information on support for and exemplars of research collaborations; mechanisms to promote collaborative research at local and international level; support for inter-disciplinary research collaborations; research collaboration with research users;
- esteem: prestigious/competitive research fellowships held by individual researchers; external prizes and awards in

recognition of research achievement of individual researchers or research teams, including contextual information;

- contribution to the discipline or research base: exemplars of leadership in the academic community such as advisory board membership; participation in the peer-review process for grants committees or editorial boards.

In the context of research environment, the submitting UoA is encouraged to comment on the extent to which generative AI technologies have been addressed, applied or used within any of the above elements.

Environment Data

45. Following paragraphs 9.6 (d) and (e), 9.9 and Appendix H of the Guidance Notes, and also paragraph 61 of the General Panel Guidelines, submitting units are required to provide environment data in conjunction with the UoA-level Environment Overview Statement. The Panel will consider the environment data within the context of the information provided in the Environment Overview Statement, and within the context of the disciplines concerned.

46. Data on "staff employed by the university proper" and "graduates of research postgraduate programmes" will be used to inform the Panel's assessment in relation to "people" (section (4) of UoA-level Environment Overview Statement). Data on "on-going research grants/contracts" will be used to inform the Panel's assessment on "income (e.g. grants received)" (part of section (5) of UoA-level Environment Overview Statement). Additional quantitative data or indicators that are particularly relevant to the Panel are indicated in paragraph 44 above. Such additional information should be submitted within the appropriate section(s) of the UoA-level Environment Overview Statement.

Criteria and Quality Levels for Assessing Research Environment

47. Panels will exercise their expert judgement in assessing the merits of each environment submission, and will not judge automatically in terms of the scale of research environment concerned.

48. In assessing environment, the Panel will consider research environment in terms of vitality and sustainability, including its contribution to the vitality and sustainability of the wider discipline or research base. The Biology Panel will grade each environment submission with weighting attached to individual aspects as follows –

- research and impact strategy – 10%
- research integrity and research ethics – 5%
- people – 20%
- income (e.g. grants received), infrastructure and facilities – 30%
- collaboration – 20%
- esteem and contribution to the discipline or research base – 15%

The Panel will use one or more of the five categories of quality level as specified in paragraphs 63-65 of the General Panel Guidelines for assessing each aspect within the environment element and by aggregating assessments of individual aspects to form an overall assessment for each UoA-level environment submission.

49. The Biology Panel provides the following amplifications to supplement the generic criteria for assessing research environment –

- vitality: the extent to which a unit supports a thriving and inclusive research culture for all staff and research students, that is based on a clearly articulated strategy for research and enabling its impact, is engaged with the local and international research and user communities and is able to attract excellent postgraduate and postdoctoral researchers;
- sustainability: the extent to which the research environment ensures the future health, diversity, wellbeing and wider contribution of the unit and the discipline(s), including investment in people and in infrastructure.

50. The Panel will make an overall judgement about the vitality and sustainability of research environments, rather than assessing each

criterion separately. The quality standards for assessing research environment will be those indicated in paragraph 65 of the General Panel Guidelines.

Section E : Working Methods

Use of Sub-Group(s)/Sub-Panel(s)

51. There will not be any sub-group or sub-panel formed under the Biology Panel. The final assessment and grading will be decided by the Panel as a whole.

Allocation of Work in the Assessment Process

52. The Convenor, consulting the Deputy Convenor and other panel members, as appropriate, will allocate work to members and, if necessary, lay members, impact assessors and/or external reviewers in light of their expertise and workload. In allocating the work, the Convenor will also take into account any potential conflicts of interest of respective panel members and assessors. All panel members will take account of the requirements of the General Panel Guidelines to ensure that the exercise is conducted fairly and equitably.

53. Panel members will examine the submitted outputs in detail, and put forward a recommendation to the Panel for a collective decision on the final grading. To ensure fairness and consistency, each research output will be assessed in detail by at least two members, one of whom should be a non-local member to the extent possible. For UoA(s) which is(are) only housed at one or two local universities, submissions will be assigned to at least one non-local member in order to ensure fair and impartial assessment. Final grading on research outputs will be decided by the Panel as a whole.

54. Subject to conflicts of interest of individual members, the impact and environment submissions will be assessed by the whole Panel and the final grading of individual submissions will be a collective decision of the Panel.

55. Where appropriate, the Panel will decide, by exercising their professional judgement, whether lay members (local "research end-users" or professionals in respective fields from business, government, industry and the arts, who need not be academics) with suitable expertise will be invited to take part in the assessment. Lay members who are academically qualified may also be invited for assessment of research outputs and research environment. The engagement of lay members will be by invitation from the Panel only.

Cross-Panel Referrals

56. This Panel will follow the procedures in paragraphs 41-43 of the General Panel Guidelines when initiating referrals to other panels and assessing submissions cross-referred by another panel.

57. Generally, research on pedagogy and education issues submitted to this Panel will be assessed by panel members or external reviewers with expertise in pedagogy or cross-referred to Panel 13 – Education.

58. Cross-panel referrals are envisaged in areas such as: physical geography, oceanography, optical methods, medicinal chemistry, material science, nanotechnology (to Panel 3 – Physical Sciences); clinical pharmacology (to Panel 2 – Health Sciences).

External Advice

59. This Panel will follow the procedure in paragraph 67 of the General Panel Guidelines when referral to external reviewers for expert advice becomes necessary for panel assessment. External reviews may be sought in the cases for which members of the Panel do not have the necessary expertise such as outputs in foreign language or niche research work.

Trial Assessment

60. With reference to paragraphs 91-93 of the General Panel Guidelines, the Panel will conduct a trial assessment using a sample of submissions selected from universities' submissions. These sample submissions will be assessed by all members of the Panel. Members will share among themselves any important observations in the assessment to ensure fairness and consistency in the actual assessment. Submissions used for the trial assessment will be assessed afresh during the main assessment

period regardless of their assessment results during the trial. The Panel will decide on the sample size after the submissions are received.

Panel Feedback Report

61. With reference to paragraph 73 and Appendices E and F of the General Panel Guidelines, the Panel will provide feedback to the University Grants Committee (UGC) after the assessment process. Non-local panel members will be involved in offering comments for an impressionistic international comparison. The Convenor on behalf of the whole panel will submit the Panel feedback report to the UGC by November 2026. Sector-wide comments in the Panel feedback report will be released for public information after announcement of the RAE results. Comments on individual universities will be provided to the respective universities under confidential cover in accordance with paragraph 11.3 of the Guidance Notes.