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This summary document brings together all guidance on the submission and assessment of interdisciplinary research (IDR) in REF 2021, as set out in the Guidance on submissions (REF 2019/01) and the Panel criteria and working methods (REF 2019/02).

# **REF 2021: Overview of arrangements for submission and assessment of interdisciplinary research**

## Introduction

This summary document brings together all guidance on the submission and assessment of interdisciplinary research (IDR) in REF 2021, as set out in the Guidance on submissions (REF 2019/01) and the Panel criteria and working methods (REF 2019/02). Feedback in the consultation indicated that it would be helpful to the sector to have a single source of information on this aspect of the exercise.

The two documents were developed throughout the criteria-setting phase of the REF from April to December 2018, acting on recommendations from the independent review of the REF undertaken in Lord Stern<sup>1</sup>, and agreed by the four UK higher education funding bodies and four REF main panels. The IDR guidance was shaped by the advice provided by the Interdisciplinary Advisory Panel (IDAP), which sought to develop processes to ensure visibility and fair and consistent assessment for IDR in the REF.

This overview extracts IDR-relevant elements from the two documents with no further interpretation or commentary, retaining the original paragraph numbering. It provides a single source of information on IDR arrangements in REF 2021, to support the development of REF submissions and to provide confidence to the research community that IDR will be treated equitably by the assessment panels.

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<sup>1</sup> Available at: <https://www.gov.uk/government/publications/research-excellence-framework-review>.

## **IDR in the Guidance on Submissions**

### **Interdisciplinary and collaborative research**

101. An underpinning principle of the REF is that all types of research and all forms of research output across all disciplines shall be assessed on a fair and equal basis, including interdisciplinary and collaborative research. There have been concerns that the assessment of interdisciplinary research has presented challenges in previous REF and RAE exercises, due to the discipline-based structure of the UOAs, or that collaborative research has not been encouraged due to the competitive nature of the exercise.

102. A number of enhancements to the procedures for assessing interdisciplinary research were introduced in REF 2014, including: broader UOAs with sub-panels that have the expertise to assess a wider range of research, and the appointment of additional assessors to extend the depth and breadth of panels' expertise to undertake the assessment; improved procedures for cross-referral, including the option to cross-refer individual outputs for advice; and the facility for HEIs to identify those outputs which it considered to be interdisciplinary, to draw this to the panels' attention.

103. The REF will support the equitable assessment of interdisciplinary research through the following measures:

- a. We have appointed an Interdisciplinary Research Advisory Panel (IDAP) to advise the REF team, REF panel chairs and the UK funding bodies on the development and implementation of measures to support the submission and assessment of interdisciplinary research in the REF. IDAP will not advise on individual assessments, but will advise on process, and provide advice and support for cross-panel collaboration.
- b. We have appointed at least one member to each main panel with specific responsibility for providing guidance on the assessment of interdisciplinary research, and who will join IDAP for the assessment phase. We will also appoint at least two members of each sub-panel to the role of interdisciplinary research (IDR) adviser to provide guidance on the assessment of interdisciplinary research submitted in that UOA and to work with advisers in other sub-panels to ensure its equitable assessment.
- c. Working with IDAP, we have developed a definition of interdisciplinary research for the REF to better enable HEIs to identify interdisciplinary outputs at the point of submission (paragraph 273). The interdisciplinary identifier will allow panels, working with their IDR advisers, to consider the most appropriate means of assessing the output, including within the sub-panel, with advice from the IDR advisers' network, or with advice from another sub-panel. The use of the interdisciplinary identifier is distinct from the cross-referral process<sup>2</sup>. The 'Panel criteria' sets out further details on these processes. The IDR identifier will also enable the funding bodies to conduct post-exercise analysis of interdisciplinary research in REF 2021, enabling them to assess the effectiveness of the additional measures put in place.

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<sup>2</sup> In addition to cross-referring parts of a submission between sub-panels for advice to inform the assessment, parts of submissions may be made available to other sub-panels for the purposes of calibration exercises. Calibration procedures are described in more detail in the 'Panel criteria', Part 5.

- d. Working with IDAP, we have developed additional guidance for the sub-panels on assessing interdisciplinary research outputs according to the generic assessment criteria for outputs. This guidance is included in the 'Panel criteria', paragraph 196.
- e. Informed by the survey of submission intentions, we will seek to appoint assessors to work with more than one sub-panel, where there are strong cross-disciplinary connections between particular sub-panels.
- f. Within the institutional-level environment statement and the unit-level environment template, HEIs can provide information about their approach to supporting interdisciplinary research. The panels will give due credit where these arrangements have enhanced the vitality and sustainability of the research environment.
- g. A briefing document drawing together all guidance and criteria relating to interdisciplinary research will be published in February 2019.

### **Open access**

251. Interdisciplinary research outputs returned in a UOA in Main Panel A or B that span boundaries with a UOA in Main Panel C or D may respect the longer of the two embargo periods. The interdisciplinary identifier should be applied for these outputs (see paragraphs 273 to 274).

### **Interdisciplinary research identifier**

273. For the purposes of the REF, interdisciplinary research is understood to achieve outcomes (including new approaches) that could not be achieved within the framework of a single discipline. Interdisciplinary research features significant interaction between two or more disciplines and/or moves beyond established disciplinary foundations in applying or integrating research approaches from other disciplines.

274. Institutions are invited to identify outputs across their submissions that meet the definition of interdisciplinary research as set out in paragraph 273. Sub-panels will consider this information in determining the most appropriate means of assessing the output, with advice from the interdisciplinary advisers. This process is distinct from a request for cross-referral. The 'Panel criteria' (paragraphs 390 to 398) sets out further information about the processes for assessing outputs identified as interdisciplinary. The IDR identifier will also enable the funding bodies to conduct post-exercise analysis of interdisciplinary research in REF 2021, enabling them to assess the effectiveness of the additional measures put in place.

## **IDR in the Panel Criteria and Working Methods**

### **Part 1: Overview**

#### **Appointment of additional sub-panel members and assessors**

27. We will make further appointments to the panels of both sub-panel members and assessors in advance of the assessment year. This is to ensure the sub-panels have an appropriate breadth of expertise and number of panel members necessary for the assessment phase. We also expect to make further appointments of members with the role of interdisciplinary adviser in the assessment phase. This role is described in REF 2017/03 (Box 1).

#### **Outputs**

43. An underpinning principle of the REF is that for each discipline all types of research and all forms of research output shall be assessed on a fair and equal basis. Panels have been instructed to define criteria and adopt assessment processes that enable them to recognise, and treat on an equal footing, excellence in research across the spectrum of applied, practice, basic and strategic research, wherever that research is conducted; and for identifying excellence in different forms of research endeavour including interdisciplinary and collaborative research, while attaching no greater weight to one form over another.

### **Part 2: Unit of assessment descriptors**

51. Details of the assessment of interdisciplinary work and work that crosses UOA boundaries, including pedagogic research, are provided in paragraphs 166 to 177.

### **Part 3: Assessment criteria:**

#### **Section 1: Submissions**

##### **Interdisciplinary research**

166. The REF main and sub-panels welcome the submission of interdisciplinary research, as defined in paragraph 390, in any relevant UOA.

167. The arrangements for assessing interdisciplinary research – including through the guidance provided by the interdisciplinary advisers on the main and sub-panels, the interdisciplinary research identifier, and the appointment of additional members and assessors – are set out in the working methods (see paragraphs 390 to 398).

168. The interdisciplinary research identifier for outputs allows HEIs to identify in the submission those outputs which it considers to be interdisciplinary, and to draw this to the panels' attention. This is intended to give greater confidence to HEIs to submit interdisciplinary research, and will allow panels, working with their IDR advisers, to consider the most appropriate means of assessing the output. It is recognised that submissions may cover a broad range of disciplines, or may not have an identifiable disciplinary focus. The sub-panels therefore encourage HEIs to identify in submissions all

outputs they consider meet the definition of interdisciplinary research (set out in paragraph 390) where they wish to draw this to the panels' attention. The sub-panels recognise that outputs flagged as interdisciplinary may incorporate research crossing main panel areas, may span disciplines across the sub-panels within a main panel, or may incorporate research areas covered within a sub-panel – particularly where UOAs cover a broad range of disciplines.

169. There will be no advantage or disadvantage in the assessment in identifying outputs as interdisciplinary. The main and sub-panels will apply the standards of excellence defined by the starred quality levels equally to research in interdisciplinary areas and to research within distinct disciplines. The main and sub-panels consider that all such research is capable of displaying the highest standards of quality.

### **Section 3: Outputs**

#### **Criteria and level definitions**

##### Interdisciplinary research

196. Interdisciplinary outputs will be assessed against the generic criteria of originality, significance and rigour. In assessing interdisciplinary outputs, the sub-panels will make use of guidance provided by the Interdisciplinary Research Advisory Panel (IDAP) that originality and significance can be identified in one, some or all of the constituent parts brought together in the work, or in their integration; they do not need to be demonstrated across all contributing areas/fields. This guidance will work in parallel with – rather than replace – the generic criteria of originality, significance and rigour.

### **Section 4: Environment**

#### **Institutional-level environment template (REF5a)**

- a. Context and mission: an overview of the size, structure and mission of the institution.
- b. Strategy: the institution's strategy for research and enabling impact (including integrity, open research, considerations of equality and diversity, and structures to support interdisciplinary research, where applicable) in the assessment period and for the next five-year period.
- c. People: the institution's staffing strategy, support and training of research students, and building on the information provided in codes of practice, evidence about how equality and diversity in research careers is supported and promoted across the institution.
- d. Income, infrastructure and facilities: the institutional-level resources and facilities available to support research. This should include mechanisms for supporting the reproducibility of research as appropriate to the research focus of the HEI, and to facilitate its impact.

332. The sub-panels will use the information provided in the institutional-level statement to inform and contextualise their assessment of the relevant sections of the unit-level template. The institutional-level statement will not be separately assessed or separately scored by the sub-panels. Units should not repeat material covered in REF5a in REF5b and should cross-refer between the statements, where appropriate.

### **REF5b, Section 1: Unit context and structure, research and impact strategy**

346. This section should provide evidence of the achievement of strategic aims for research and impact during the assessment period, and details of future strategic aims and goals for research and impact; how these relate to the structure of the unit, and how they will be taken forward. Note that there is no expectation that this section refers to a single department or coherent organisational unit. Evidence may include (but is not limited to):

- How research is structured across the submitted unit (including research groups or sub-units), to provide context for assessing the submission.
- The submitting unit's research objectives during the assessment period and over the next five years, including a review of the submitting unit's research plans described in REF 2014.
- How the unit has sought to enable and/or facilitate the achievement of impact arising from their research and how they are shaping and adapting their plans to ensure that they continue to support the vitality and sustainability of the unit's impact in the future. The submitting unit should describe how the selected case studies relate to their approach to achieving impact.

The submitting unit's approach to supporting interdisciplinary research, where applicable, in the context of the unit's research strategy. The sub-panels will give due credit where these arrangements have enhanced the vitality and sustainability of the research environment.

### **REF5b, Section 4: Collaboration and contribution to the research base, economy and society**

358. This section should provide information about collaboration and contribution, including:

- the arrangements, support in place for and effectiveness of research collaborations, networks and partnerships, including joint research projects with academic colleagues in other institutions, locally, nationally or internationally and indicators of their success
- evidence of how staff interacted with, engaged with or developed relationships with key research users, beneficiaries or audiences in the period 2014 to 2020 to develop impact from the research carried out in the unit and how these collaborations have enriched the research environment
- wider contributions to the economy and society, including evidence of the wider activities and impact of research carried out in the unit that is not captured in the impact case studies

- how the unit engages with diverse communities and publics through its research
- evidence of the unit's contribution to the sustainability of the discipline, support for and exemplars of interdisciplinary research, and responsiveness to national and international priorities and initiatives
- indicators of wider influence, contributions to and recognition by the research base including, but not limited to:
  - journal editorship
  - participation on grants committees
  - fellowships
  - prizes
  - membership of Research Council or similar national and international committees
  - invited keynotes, lectures and/or performances, or conference chair roles
  - refereeing academic publications or research proposals
  - co-operation and collaborative arrangements for PGR training, including whether these have received formal recognition nationally or internationally.

## **Part 5: Panel working methods**

### **Main panel working methods**

371. Each main panel will work with its sub-panels as follows:

- a. **Main panel meetings.** The main panels will meet regularly throughout the planning and assessment phases to ensure close working and communication between sub-panels, to identify issues for early action, seek advice on handling specific cases, resolve emerging differences, share developing good practice and provide assurance on the procedures being followed. Sub-panel chairs will report to the main panel meetings on general progress and on the implementation of working methods, particularly on issues where cross-panel consistency is significant, including:
  - interdisciplinary research outputs
  - cross-referrals
  - the range of output types
  - impact case studies



- double-weighted outputs.
- b. **Main panel member attendance at sub-panel meetings.** The chair and members of the main panel will attend some meetings of sub-panels, to provide assurance that practices are consistent across the group of sub-panels:
- The members of the main panel advising on interdisciplinary research will in particular be engaged in calibration processes relating to interdisciplinary research outputs, supporting the interdisciplinary advisers on the sub-panels, and advising on the consistency of assessment standards for interdisciplinary research.

### **Sub-panel working methods**

#### **Allocating work**

378. The sub-panel chair, consulting with the deputy chair, interdisciplinary adviser(s) and sub-panel members, as appropriate, will allocate work to members and assessors with appropriate expertise, taking account of any conflicts of interest and the sub-panel's approach to identifying outputs with significant material in common (see paragraphs 214 to 215 [of the 'Panel criteria']). This allocation may be at the level of individual or groups of outputs, individual or groups of impact case studies, and whole environment templates.

#### **Assessing interdisciplinary work**

390. For the purposes of the REF, interdisciplinary research is understood to achieve outcomes (including new approaches) that could not be achieved within the framework of a single discipline. Interdisciplinary research features significant interaction between two or more disciplines and/or moves beyond established disciplinary foundations in applying or integrating research approaches from other disciplines.

391. Submitting HEIs should identify those outputs that they consider meet the definition of interdisciplinary research, as set out in 'Guidance on submissions' (paragraph 273) and repeated in this document in paragraph 390, to draw this to the attention of the sub-panel. Outputs flagged as interdisciplinary will be assessed on a fair and equal basis and will be neither advantaged nor disadvantaged in the assessment. Sub-panels may identify outputs as interdisciplinary that have not been flagged as such by the submitting HEI, to enable consideration of the most appropriate means of assessing the output. Additionally, there will be no disadvantage in the assessment where a sub-panel considers that a flagged output does not meet the definition of interdisciplinary research and the output will be assessed on a fair and equal basis with other submitted outputs. In assessing interdisciplinary outputs, sub-panels will make use of the criteria referred to in paragraph 196.

392. The interdisciplinary identifier will allow panels, working with their IDR advisers, to consider the most appropriate means of assessing the output. It is distinct from the cross-referral process, which is set out below in paragraphs 399 to 404 [of the 'Panel criteria']. Flagging an output as interdisciplinary will not trigger cross-referral of the output; cross-referral may be one of the

assessment routes followed. The panels do not anticipate that all interdisciplinary outputs will require cross-referral and, conversely, expect that cross-referred outputs will not all necessarily meet the REF definition of interdisciplinary research.

393. Given the anticipated diversity of both the interdisciplinary submissions and the sub-panels, it is not appropriate to prescribe a single approach to assessing interdisciplinary outputs. The processes will be developed by the individual sub-panels and will be tailored to the submissions they receive. However, there are a number of mechanisms in place to ensure that interdisciplinary outputs are assessed consistently across the panels, as set out in paragraphs 396 to 398.

394. Each sub-panel will have members who have experience of interdisciplinary work. Where appropriate, this expertise will be augmented with the appointment of additional members and assessors. Sub-panels are confident that they can assess such work, and the appointment of the full membership for the assessment phase will seek to ensure that sub-panels have access to appropriate expertise to reach robust and valid judgements with regard to submitted material.

395. All sub-panels will have at least two members appointed as interdisciplinary advisers. The interdisciplinary advisers will offer guidance to the sub-panels in their assessment of interdisciplinary outputs to enable their robust and valid assessment. This may include advising on the allocation of outputs and the calibration and moderation of scoring. Interdisciplinary advisers will not necessarily be expected to assess all interdisciplinary outputs submitted to their panel.

396. The interdisciplinary advisers will work in a network with their counterparts on other sub-panels (across all four main panels) to review outcomes from the initial calibration of interdisciplinary outputs and may be involved in the joint consideration of outputs with other advisers from the relevant sub-panels, as required during the assessment process. The network of interdisciplinary advisers will meet at key points during the assessment phase, which will provide a forum for reviewing joint working arrangements and identifying wider expertise requirements. IDAP will provide advice and support to the network on these aspects during the calibration and assessment phases.

397. The sub-panels' approach to assessing outputs identified as interdisciplinary will be reviewed across the main panels, to ensure an appropriate consistency of approach. Analysis of the emerging and final scores for the group of outputs identified as interdisciplinary will be conducted by IDAP during and upon completion of the assessment process.

398. IDAP will have a role in overseeing the assessment of interdisciplinary work to ensure that agreed principles and process for assessment are applied and that there is consistency in approach across panels. IDAP will not advise on the assessment of individual outputs, but will advise on process, and provide advice and support for cross-panel calibration. The main panel interdisciplinary leads will join the membership of IDAP during the assessment phase.