



# Preparation for REF 2021

25 September 2018

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# What a REF Panel expects from a good submission

Professor Hugh McKenna

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# REF2021

## Research Impact

### What a REF Panel expects from a good submission



Hugh McKenna  
Ulster University

25 Sept 2018

# Impact case studies -eligibility

- Impact remains eligible for submission by institution(s) where research was generated (i.e. non-portable)
- Impact must be underpinned by research of minimum 2\* quality
- Timeframe:
  - 1 January 2000 -31 December 2020 for underpinning research
  - 1 August 2013 -31 July 2020 for impacts
- Impact on teaching within (and beyond) own HEI eligible
- Case studies continued from examples submitted in 2014 will be eligible for submission in REF 2021, provided they meet the same eligibility criteria

# Impact –criteria

## Reach

The extent and/or diversity of the beneficiaries of the impact, as relevant to the nature of the impact. (It will not be assessed in geographic terms, nor in terms of absolute numbers of beneficiaries.)

## Significance

The degree to which the impact has enabled, enriched, influenced, informed or changed the performance, policies, practices, products, services, understanding, awareness or well-being of the beneficiaries.

- Case studies describing **any type(s)** of impact welcomed (extensive –but not exhaustive –list of examples of impact and indicators in Annex A)
- Case studies describing impacts through public engagement welcomed
- Case studies must provide a clear and coherent narrative supported by verifiable evidence and indicators

# Impact –underpinning research

- Panels recognise that the relationship between research and impact can be indirect and non-linear
- Underpinning research as a whole must be min. 2\* quality
- Case studies must include up to six key references (not every output referenced has to be 2\*)
- Can also include indicators of quality e.g. evidence of peer-reviewed funding, prizes or awards for individual outputs etc.
- May be a body of work produced over a number of years or may be the output(s) of a particular project

# Differentiating Outstanding Impact from Modest Impact.

Outstanding	Modest
<p>Gave clear indication of the underpinning research and explanation for its quality.</p>	<p>Failed to set out the thread of evidence linking the research to the impact and to establish the quality of the research.</p>
<p><b>Gave clear explanation of how the research results had brought about the change, effect or benefit.</b></p>	<p><b>Focused on the reputation/esteem of the researcher and unit rather than the impact.</b></p>
<p>Understood the distinction between dissemination and impact.</p>	<p><b>Presented dissemination as impact.</b></p>
<p><b>Provided clear (and not overstated) account of the Reach and Significance of the impact.</b></p>	<p><b>Made unconvincing or overstated claims of the Reach and Significance of the impact.</b></p>
<p>When corroborating sources were followed up, they justified the claims made.</p>	<p>When corroborating sources were followed up, they did not back up the claims made or did not respond.</p>

# Differentiating Outstanding Impact from Modest Impact.

Outstanding	Modest
Evidence based statements.	Excessive publication lists or web references, some inaccessible.
<b>Within the word limit and guidelines.</b>	<b>Did not adhere to guidelines. (e.g. research was not undertaken at the submitting institution)</b>
<b>A articulate, well written and interesting story.</b>	Lack of coherence and dense narrative, journalistic.
<b>The underpinning sciences was strong.</b>	<b>Has unnecessarily 'drummed up' or 'dumbed down' the narrative</b>
<b>Impact of CPD Programmes - Knowledge Transfer.</b>	<b>Quality threshold not met so Case Study not assessed</b>

# Ensuring that your work is impactful

## Passive

- Research is done.
- Disseminated.
- It is found and used by others to have impact.



## Active

- Research is done.
- Identify some potential impact partners.
- Work with them to develop impact.

## Proactive (Starting with the end in mind)

- Include stakeholders in the research from Design to Dissemination to Development.
- Work with them to map out the journey to impact.

# Ensuring that your work is impactful

- **Who** are the audiences for our research and what are the potential/actual impacts on them?
- **When** should we engaged with stakeholders?
- **How** will we communicate and engage with stakeholders (not just disseminate)?
- **How** do we need to translate materials to meaningfully engage our stakeholders?
- **What** pathways do we need to follow to achieve impact?
- **How** can we best describe, evidence and analyse the pathway from research to impact?



# Ensuring that your work is impactful

- **How** will we track impact and demonstrate its achievement?
- **How** can we link our research to the Government's Industrial / Innovation Strategies.
- **What** resources do we need to realise impacts?
- **What** will the reach and significance of the impact be?
- **What** impact is realistic for our research short term and what is expected and realistic longer term?
- **How** will we transfer knowledge into the organisations for impact to occur?



VV-IMPACT TRACKER

# Considerations when Embedding Impact



Human Resources  
'Impact champions'



Team effort  
'celebrations'



Senior Management Buy-in



Training evolution



Impact data capture

# Ensuring that your work is impactful

- **Foundational facilitators:** An understanding of the local political, policy and socio-cultural context and prior engagement with research context and users.
- **Planning for impact:** intentional focus on impact and integrated methods for its achievement - starting with the end in mind. What's out pathway to Impact?
- **Engaging end users:** proactive engagement and ongoing co-production of knowledge aligned with their incentives & motivations.
- **Influential outputs:** tailored fit-for-purpose design of outputs- exec summaries, short relevant papers – better received.
- **Lasting engagement:** ongoing engagement and continuity of relationships beyond the time-frames of the grant leads to continued ownership.

# Research Impact: Further Information

- <http://www.fasttrackimpact.com/single-post/2015/10/16/How-to-write-a-winning-research-impact-case-study>
- <http://impact.ref.ac.uk/CaseStudies/>
- <https://www.atn.edu.au/siteassets/publications/atngo8.pdf>
- <https://academic.oup.com/rev/article/23/1/21/2889056/Assessment-evaluations-and-definitions-of-research>

# Is this Research Impact?





# What a REF Panel expects from a good submission

**Professor Eileen Harkin-Jones**

[ulster.ac.uk](http://ulster.ac.uk)

# Outputs

- **Originality** will be understood as the extent to which the output introduces a new way of thinking about a subject, or is distinctive or transformative compared with previous work in an academic field.
- **Significance** will be understood as the extent to which the work has exerted, or is likely to exert, an influence on an academic field or practical applications.
- **Rigour** will be understood as the extent to which the purpose of the work is clearly articulated, an appropriate methodology for the research area has been adopted, and compelling evidence presented to show that the purpose has been achieved.

# Outputs

## **4\* -World leading in terms of originality, significance and rigour.**

*Some* of the following characteristics:

- Agenda setting
- Major influence on a research theme or field
- Great novelty in developing new thinking, new techniques or novel results
- New paradigms or concepts for research
- Major changes in policy or practice with respect to applied research

## **3\* “Internationally excellent”**

- Makes important contributions to the field at an international level
- Contributes important knowledge, ideas and techniques with lasting impact, but no new paradigms or fundamental new concepts
- For applied work, led to significant change to policies or practices<sup>3\*</sup> vs. 4\*:

# Outputs

## – Paper X. De novo synthesis.....4\*

### De novo synthesis of a metal-organic framework... Farha et al.

<b>Originality</b>	New metal-organic framework material designed via computational modelling then synthesised and tested. Excellent agreement between model and experiment. New MOF with very high surface area produced
<b>Significance</b>	Ability to design new MOF with very high surface area – significant potential impact in H <sub>2</sub> and CO <sub>2</sub> gas storage
<b>Rigour</b>	Design, synthesis and validation. <i>Compelling evidence presented to show that the purpose has been achieved.</i>

# Outputs

## – Paper Y Direct numerical simulation....3\*

Direct numerical simulation of the near-field dynamics of... Siamas et al.

<b>Originality</b>	Advanced numerical simulation of swirling jet flows. Addition of 'swirl' is novel. Extension to 3D simulation for first time
<b>Significance</b>	Applications in combustion and mixing- could be applied to new atomiser design. Fuel savings
<b>Rigour</b>	Rigorous analysis of results. No experimental validation.

# Outputs

## – Paper Z Visual information search..... 2\*

Visual information search in simulated junction ... Scott et al	
<b>Originality</b>	Incremental in nature. Gaze transition technique applied to at risk drivers and low risk drivers – results compared.
<b>Significance</b>	Potentially useful in driver training applications ( but sample size isn't big enough to be able to draw sensible conclusions therefore not very useful).
<b>Rigour</b>	Small sample size. Analysis lacks rigour. Large standard deviations in results – little discussion of this.

# Outputs - Questions

- What does a 100 word summary for a 4\* paper contain? **Explain why the work is agenda setting. State its *significance-how it has or will influence academic field/practice.***
- Should impact factor and citations be included into the 100 work summary? **No, it can even be counterproductive**
- What is the view on submitting conference papers, book chapters and papers in published book volumes? **2\* at most, some conference returns but major, high profile ones with limited acceptance.**
- What is the view on including high impact 'review' papers? **Unless they contain some of your own work they will get 1\***

# Impact

- **Reach:** the extent and breadth of the beneficiaries of the impact (what is the potential 'customer base' and how many are you impacting now. This could be very small as in cure for a very rare, race specific illness)
- **Significance:** the degree to which the impact has enabled, enriched, influenced, informed or changed the products, services, performance, practices, policies or understanding of commerce, industry or other organisations, governments, communities or individuals (have you cured the disease, extended lifespan, eliminated some element)

# Grading impact

The criteria for assessing impacts are **reach and significance**

<b>Four star</b>	Outstanding impacts in terms of their reach and significance
<b>Three star</b>	Very considerable impacts in terms of their reach and significance
<b>Two star</b>	Considerable impacts in terms of their reach and significance
<b>One star</b>	Recognised but modest impacts in terms of their reach and significance
<b>Unclassified</b>	The impact is of little or no reach and significance; or the impact was not eligible; or the impact was not underpinned by excellent research produced by the submitted unit

# Questions - Impact

## Impact case studies

- What strategic initiatives are recommended for maximizing the quality of impact case studies? **Central team with academic representation from each Faculty and with excellent understanding of impact. Work with each UoA now to decide potential cases to go forward and advise on how to build case. Quarterly updates on progress for each case.**
- What in your opinion makes a 4 star impact case study? – **Demonstrable impact backed up by solid evidence – no waffle**
- Impact should not solely focus on commercialisation but extend to changes and benefits to the economy, society, culture, public policy or services, health, the environment or quality of life. Has the panel examples of impact case studies that are not focused on commercialization? **e.g. generation of open source code. Look up university websites or HEFCE report on REF2014 and read impact case studies – can search by societal impact etc.**

<http://results.ref.ac.uk/Results/ByUoa/13/Impact>

# Questions - Environment

Give an example of a very highly rated Environment section from REF 2014.

**Cambridge EEEMM – 100% 4\***

**Imperial Metallurgy 75% 4\*, 25% 3\***

**<http://results.ref.ac.uk/Results/ByUoa/13/Environment>**



# What a REF Panel expects from a good submission

**Professor Marie Murphy**

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# REFlections

of a sub-panel member (2014) and chair (2021)



**REF<sub>2014</sub> - Sub-Panel 26: Sport and Exercise Sciences, Leisure & Tourism**

**REF<sub>2021</sub> - Sub-Panel 24: Sport and Exercise Sciences, Leisure & Tourism**

# Main Panel C

Main panel	Unit of assessment
C	14 Geography and Environmental Studies
	15 Archaeology
	16 Economics and Econometrics
	17 Business and Management Studies
	18 Law
	19 Politics and International Studies
	20 Social Work and Social Policy
	21 Sociology
	22 Anthropology and Development Studies
	23 Education
	24 Sport and Exercise Sciences, Leisure and Tourism

# Consultation on draft panel criteria and working methods

# REF 2021

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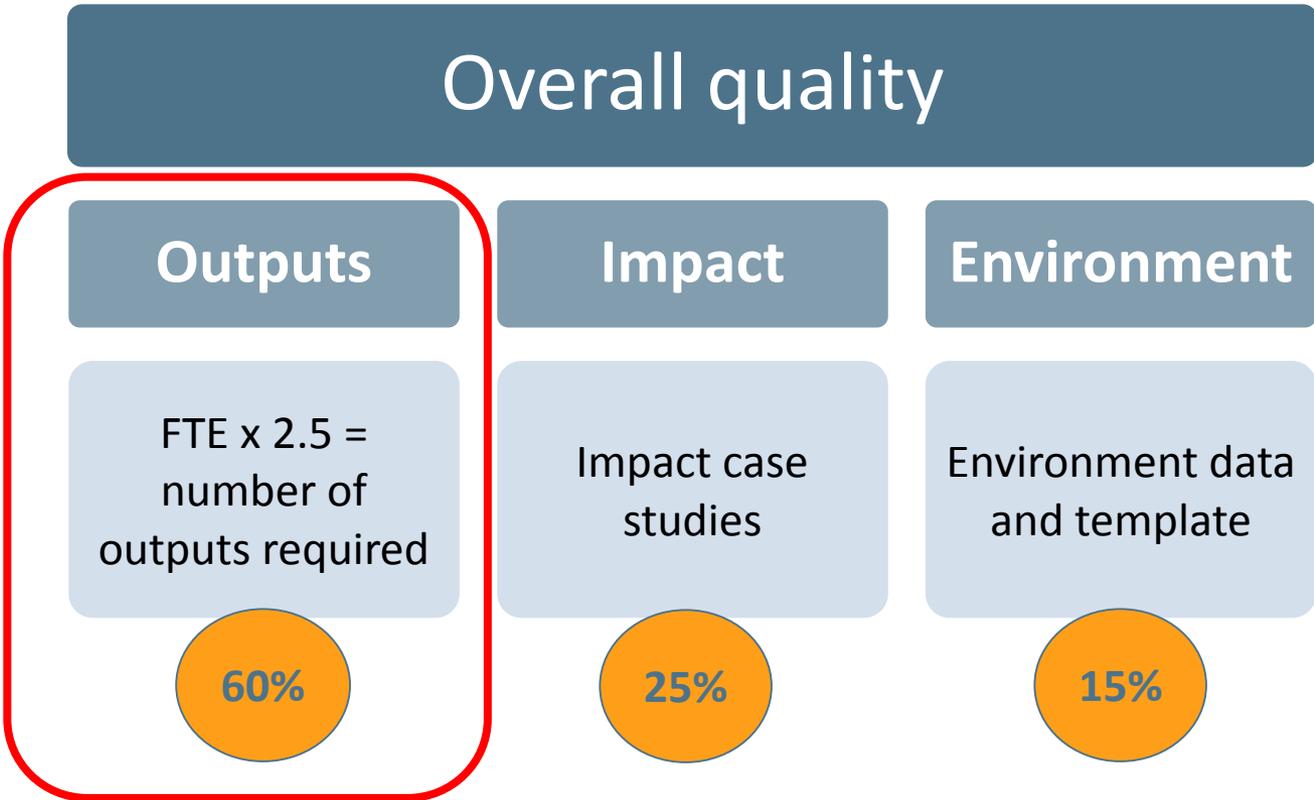
hefcw



Department for the  
Economy  
[www.economy-ni.gov.uk](http://www.economy-ni.gov.uk)

# 2021 framework

REF2021



# Key changes since REF 2014

## Overall framework

- Submission of all staff with significant responsibility for research
- Transitional approach to non-portability of outputs
- Decoupling of staff from outputs
- Open access requirements
- Additional measures to support interdisciplinary research
- Broadening and deepening definitions of impact

# Outputs

Assessed against three criteria:

## Originality

- the extent to which the output makes an important and innovative contribution to understanding and knowledge in the field

## Significance

- 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

- the extent to which the work demonstrates intellectual coherence and integrity, and adopts robust and appropriate concepts, analyses, theories and methodologies

Scored one to four star (or unclassified)

- Each main panel sets out its own understanding of the starred quality levels

# Outputs – interdisciplinary research

REF2021

- 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.
- HEIs are invited to identify outputs that meet this definition. This process **is distinct from** a request for cross-referral.
- There will be **no advantage or disadvantage** in the assessment in identifying outputs as interdisciplinary.

## Outputs – co-authored

- Institutions may only attribute co-authored outputs to individual members of staff who made a **substantial research contribution** to the output
- Main Panel A: For each submitted co-authored output where there are **ten or more** authors and where the submitted member of staff is not identified as the lead or corresponding author, institutions are required to affirm the substantial contribution to the research by the submitted member of staff.
- Main Panel B: for outputs with **more than 25 co-authors**, specific information is required about the author's contribution
- Main Panels C and D: not require the submission of information about the individual co-author's contribution but may seek to verify via audit.

# Outputs – double-weighting

- Double-weighting may be requested where the scale of academic investment in the research activity and/or the intellectual scope of the research output is considerably greater than the disciplinary norm.
- Submit a 100-word statement
- HEIs may submit a reserve output, should the request not be accepted. This **does not** have to be attributed to the same member of staff but must be in accordance with min. 1 and max. 5 outputs attributed to staff.
- Main panels set out their individual expectations

*Specific consultation on:*

- *proposed criteria for double-weighting outputs in Main Panels C and D*
- *whether requests to double-weight books should automatically be accepted?*

# Outputs – citation data

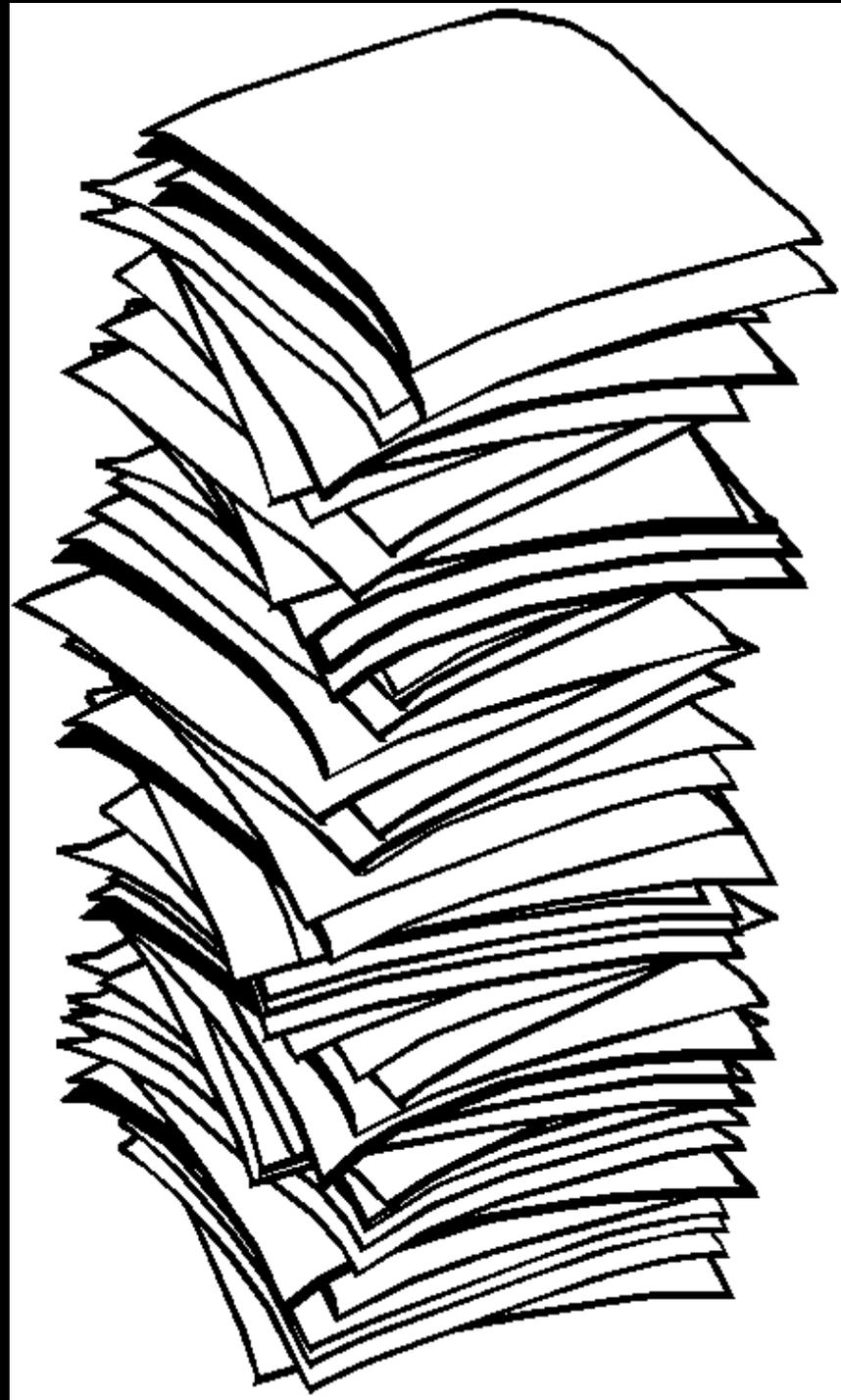
<p>Main Panel A</p>	<ul style="list-style-type: none"><li>• All sub-panels will use citation data (where available), as potential indicator of academic significance</li></ul>
<p>Main Panel B</p>	<ul style="list-style-type: none"><li>• Sub-panels 7, 8, 9 and 11 will receive citation data (where available), as part of indicator of academic significance</li></ul>
<p>Main Panel C</p>	<ul style="list-style-type: none"><li>• Sub-panel 16 <b>Economics</b> data (where available), and will use where it is considered appropriate as an additional piece of supplementary evidence</li></ul>
<p>Main Panel D</p>	<ul style="list-style-type: none"><li>• No sub-panels will receive or use citation data</li></ul>

“Using citation data is outsourcing your academic judgement” – David Sweeney (May 2018)

# Outputs REF2014

## Sub-panel 26 working methods

- Categorised and assigned to panel members by chair/vice-chair
- All read by 2 members – at least one of whom was ‘expert’
- For some panel members this meant 600+ outputs
- Originality - Significance – Rigour  
*“evidence of or potential for some...”*
- Recalibration
- Where agreement not possible-  
outputs referred to 3<sup>rd</sup> person



# Some observations on assessment of outputs in 2014

- Journal (Impact Factors not used but.....)
- Double weighting (not many requested.....most granted)
- Co-authorship / Number of authors (not considered but.....)
- Papers which are similar – based on same study (sometimes undetected.... greater awareness for 2021 including preprints issue)
- Cross-referral (system slow and late)
- Multiple return of paper by 2+ institutions (no formal mechanism for between or even within panel agreement)

# Some observations on assessment of outputs

## 1\* and 2\* easy to discern

- 2s generally- replicating what is already known or adding only small incremental advance to knowledge, protocol, pilot or feasibility
- 1s generally - poorly executed, described or analysed,

## 3\* and 4\* more difficult to distinguish

- Judgment was made easy by some authors who indicated clearly
  - what was new *Orig*
  - described the strengths (and limitations) of work *Rig*
  - implications of the work *Sig*
    - all easy to find in the paper

# REF2021- a Sport?

- Learn the rules
- Work within them- get them to work in your favour
- Prepare well and early - based on rules (whether you agree with them or not!)
- Tactics and strategy
- Only do what you know will make you competitive

