PBRF Panel Specific Guidelines – 2018 Quality Evaluations

References to metrics in each Panel

**Biological Sciences**

*Platform of Research – Contextual Summary*

“Staff members may wish to provide publication metrics (such as the number of citations received or the number of papers published in the assessment period) in this section. Metrics that apply to the assessment period would be particularly useful, but all metrics should be contextualised by the staff member as part of the wider story about the quality of their research. If such metrics are given, the source used, for example, Google Scholar, should be made explicit and the panel may check the metrics given. In assessing an EP, the panel will not refer to an individual’s publication metric when it is not quoted in the EP.” (7)

*Expectations for information to be provided about Nominated Research Outputs - Description*

“For those NROs appearing in journals, information on the journal’s quality, such as the relative ranking of a journal in its subfield, may offer useful contextual details. The panel, however, emphasises that while such information may inform assessment of journal quality, it is the NRO that is being assessed. If such a ranking is quoted, the source used for such a ranking should be made explicit. The panel will be aware that raw impact factors and other bibliometric measures can vary significantly between subject areas and so such numbers need to be put in context.” (8)

“Evidence of the impact of an NRO should be provided, for example, favourable citation of the NRO or the uptake of the research results by end users. Staff members completing EPs may wish to quote the number of citations the work has received. If so, the number should be put in context and the source used for this number should be made explicit. This number may be checked by the panel and the TEC. In assessing the impact of an NRO, the panel will not use any information not submitted in the EP.” (8-9)

**Business and Economics**

*Research outputs - Types of research outputs*

“Information on the outlet quality, such as the relative ranking of a journal in its subfield, may offer useful contextual details. The panel, however, emphasises that while such information may inform assessment of journal quality, it is the NRO that is being assessed. Panel members will use their collective professional judgement to apply the PBRF assessment standards to evidence provided in the EP when assessing individual NROs.” (13)

*Research contributions - Description*

“Evidence of the impact of research whether disseminated in traditional outlets, such as academic papers, or by non-traditional means, such as intellectual property (IP) or commissioned reports, could include some or all of the following: ... positive citations or reviews of the research including information on the number of self-citations and the source(s) and the basis of the metric(s) used (15)
Creative and Performing Arts

Platform of Research – Contextual Summary

“The contextual summary is also the place to showcase discipline leadership within and beyond the tertiary education organisation and to highlight contributions to the creative and performing arts sector at local, regional, national and international levels. It can also be the place to describe social, cultural, educational or economic impacts resulting from the research or the discipline contributions.

The panel will disregard self-evaluative commentary on the perceived quality of the research outputs and contributions.” (22)

Research outputs - Formal quality-assurance processes and other evidence of quality

“Alongside the panel’s peer review process, the panel will also take into consideration evidence from a range of quality measures including formal quality-assurance processes that, along with peer esteem and impact indicators, offer clear evidence of the independent judgement of others expert in the field. All kinds of evidence of independent peer review will help the panel members in their analysis of the work submitted but will not substitute for it.” (23)

“The panel will look for evidence of quality in the work itself, supported by a range of other quality measures, such as review, citation, inclusion in curated exhibitions or other presentations, and impact factors where relevant.

The assessment process will also be informed by the platform of research commentary, the NRO descriptions of the work and the research contribution sections of the evidence portfolio where evidence of its quality through citation, review, receipt of awards and its impact can be presented. It is up to the researcher to identify and evidence relevant external quality measures” (23-24)

Research contribution - Types of research contributions

“The panel is interested in community and end-user impact that arises out of high-quality research, where a genuine cultural, economic, societal or educational impact can be identified and evidenced.” (28)

“All sources to verify claims of impact need to be described in the relevant research contributions descriptors. It up to the researcher to demonstrate the independence of any source of evidence and its authenticity.” (28)

“The panel recognises the limits to measuring and reporting on impact over such a short timeframe and will consider evidence of the impact of research produced before the assessment period where it is clearly relevant to the platform of research of the staff member and the impact occurs within the period of the assessment.” (30)

Education

Research outputs - Types of research outputs

“The focus of educational research is often about making a difference in educational policy and practice for families, children, students and teachers, and citation indices do not generally measure these impacts. Where appropriate, education researchers may provide other evidence of impact such as the adoption of a researcher’s innovation in policy and practice.

For some areas in education, citation indices may provide evidence that, for example, one’s theoretical interpretation or innovative approach to data analysis has had a broader impact on others’ research. An author citation metric, such as the h-index, is neither particularly well suited to
nor commonly used in education, particularly for subfields with small numbers of researchers working in a particular area. Such information is not expected but may be included for some subfields of education (for example, educational psychology) if deemed appropriate.

Although citation information from a source such as Google Scholar may be included where deemed appropriate, this may be most relevant to publications early in the current assessment cycle because these are likely to have had the necessary time to generate citations.

Evidence of quality for outputs, such as journal articles, is most likely to be journal rankings and the acceptance rate for particular journals. Where journals have different rankings under different systems, it may be most useful to indicate in which quartile the journal is ranked. Where journal rankings may be affected by the “size” of a particular subdiscipline or specialisation, the relative position of a journal in a particular topic area should also be included for consideration. “(36)

Engineering, Technology and Architecture
Platform of Research – Contextual Summary
“The Engineering, Technology and Architecture Panel would consider the following useful to judge the full platform of research:

› a brief summary of the total publication record for the assessment period (including research outputs not included in the EP) that may use metrics such as total number of research outputs and categorisation by research output type (taking into consideration the 2,500 character limit of the Platform of Research – Contextual Summary field).

› a summary of the research contributions focusing on evidence of peer esteem, contribution to the research environment and impact of the research. Summary metrics such as h-index or similar may be provided.

If metrics are cited, the EP should contextualise the citation within a discipline or subdiscipline. Staff members should provide such relevant contextual information, because there is no agreed list of journal rankings in New Zealand or Australia in most disciplines.”(44)

Expectations for information to be provided about research outputs - Description
"Evidence of the quality and impact of NROs, whether they are traditional, such as academic journal or conference papers, or non-traditional, such as creative works, intellectual property (IP) or commissioned reports, could include some or all of the following (in no particular order): ... positive citations of the research“ (46-47)

“For journal articles, if direct evidence of quality and impact is not provided, refereed articles (particularly in leading world-class journals in the discipline) will normally rank ahead of a professional journal or magazine article under editorial scrutiny, and of non-refereed articles.” (47)

“Staff members are encouraged to provide any citation and publication metrics as supporting evidence for NROs and research contribution entries. Metrics will be considered in a disciplinary context. Therefore, evidence on how these metrics rank in their field should be provided where possible and can include things like average citation rates in the field or average publication rates or SNIP (Source-Normalized Impact per Paper).
Any metrics should include information on the source and basis of the metric value, for example, Google Scholar for the period 2012 to 2017 or any other parameters used in the search (for example, including or excluding self-citation). In particular:

› for open access, and ease of assessment and comparison reasons, the Engineering, Technology and Architecture Panel suggests using Google Scholar for citation sources and www.scimagojr.com for journal rankings, impact factors and other journal rankings and scores

› these sources are in place of or in addition to any other source you might prefer (for example, Scopus, Web of Science), as well as other preferred metrics

› publication and citation indices might include: h-index, g-index, citations per year, i10-index, citations in the past six years, total impact factor points accrued, average impact factor, journal rank by value and/or quartile in one or more areas. For non-traditional research outputs, alternative metrics, such as those provided by Altmetric, may be appropriate to use.

In most EPs, a small number of metrics should be selected that are appropriate to the field and best support the case for quality and/or impact. It is noted that some of the above example metrics are better suited to the Platform of Research – Contextual Summary or Research Contributions sections than the Description narrative for an NRO.” (48)

Health

Expectations for information to be provided about research outputs - Description

“The Health Panel anticipates that the degree to which research in an EP is discipline specific and/or interdisciplinary research will vary and both will be assessed on their merits.

As noted above, EPs may reference citation metrics associated with the research output. A rationale should be provided for the choice of metric and all metrics cited need to be evidenced with a supporting reference.” (56-57)

Humanities and Law

Research outputs - Types of research outputs

“Within humanities and law disciplines, citation metrics are not typically used to assess the quality or impact of an output. However, EPs may include in the Description field information on the citation of an output, the outlet quality, such as the relative ranking of a journal in its subfield, or acceptance rates of articles for journals. There is no agreed list of journal rankings in New Zealand or Australia in most disciplines. The panel confirms that peer assessment of individual output quality on a case-by-case basis is an essential aspect of the evaluation. Outputs will be assessed on their intrinsic research merit according to the PBRF Definition of Research.” (63)

Elaboration of the descriptor for the Research Output component

“The Humanities and Law Panel will use the same standards to assess all types of research outputs. The panel will specifically consider the extent to which the research: ... is recognised as being of high quality” (65)
**Research contributions**

“Impact may be demonstrated in the humanities by citation, or disciplinary change, as in the uptake of research in school curricula, or in media or other forms of public dissemination, or in other professional activities such as involvement with professional or external bodies linked to research. An explanation of the link to the Definition of Research should be included in the description. There may also be a range of other impacts including policy impact, social or cultural impact, political, environmental or economic. The researcher should explain impacts with examples and may include an appropriate measure of assessment.” (64-65)

**Maori Knowledge and Development**

*Platform of Research – Contextual Summary*

“Staff members are encouraged to provide information that clearly demonstrates the impact of their research within their specific disciplinary fields and/or to the broader area of indigenous research.”(69)

*Elaboration of the descriptor for the Research Output component*

“The Māori Knowledge and Development Panel will look for evidence of quality in the work itself, supported by a range of other quality measures, such as review, citation, inclusion in curated exhibitions, impact evidence and endorsements. Specific consideration will also be given to a range of quality measures, including formal quality-assurance processes, peer esteem and impact indicators, which offer clear evidence of the independent judgement of others expert in the field.

The assessment process will also be informed by the platform of research commentary, the evidence submitted for NROs and the descriptive elements relating to each NRO, and the research contribution sections of the EP where evidence of its quality through citation, review, receipt of awards and its impact can be presented.”(70)

*Research contribution - Types of research contributions*

“The impact of Māori research can be acknowledged in ways unique to te Ao Māori, for instance, the performance of a creative piece of work, such as haka or waiata-ā-ringa, in multiple venues or sites could be considered analogous to multiple journal citations. Similarly, the esteem of the site or event where the creative work is performed could be considered analogous to the varying esteem afforded to publication sites, such as journal rankings.”(70)

“Research contributions can be activities inside academia and society generally that are based on Māori research methodologies and methods, Māori centred-subject matter, and research that impacts on Māori. Where information in the form of impact indices is available, that information may be included in the Description field when describing why a research contribution represents one of the staff member’s best outputs.”(71)

**Mathematical and Information Sciences and Technology**

*Elaboration of the Definition of Research*

“The influence of the research reported may be an optional adjunct measure in other cases, which would usually be expressed through the academic credibility and quality of journals and the prominency of conferences, including citation counts if advantageous. But applications or uptake beyond the field could also be worthy indicators of impact if appropriately validated.” (74)
**Expectations for information to be provided about research outputs - Description**

“Information about the standing of journals is always helpful, reflecting that some mathematical and information sciences and technology subject areas have low citation counts and, consequently, low journal impact factors as a result. This is well known, especially in the mathematical and computer sciences, where annual publication rates tend to be less than the other sciences and citing is more restrained.

The Mathematical and Information Sciences and Technology Panel recognises that, consequently, journal impact factors will generally be lower than those of other disciplines. For these reasons, considerable care has to be exercised in over-interpreting the various metrics, and relativities between diverse fields should be avoided because they are meaningless.

Recalling the PBRF’s six-year cycle, the Mathematical and Information Sciences and Technology Panel recognises that indices relating to lifetime performance, such as the h-index, may still be a helpful indicator of uptake within each subject area. Nevertheless, because h-indices calculated from different input data sets, notably Google Scholar (typically with Publish or Perish), Scopus and the Web of Knowledge, are also often different: if an h-index is declared, an EP should say which data set it is based upon.

The Mathematical and Information Sciences and Technology Panel will not calculate an h-index if it is unstated in the EP and it will not compare an h-index with other subject areas within or outside of its scope.” (76)

**Medicine and Public Health**

*Platform of Research – Contextual Summary*

“If publication metrics (such as the number of papers published, the number of citations received in the assessment period, h-index) are provided in this section they should be contextualised as part of the wider story about the quality of the research. If metrics are given, their source (for example, Google Scholar, Web of Science) should be specified, and these may be checked by the panel.” (81)

*Expectations for information to be provided about research outputs - Description*

“For all types of research outputs, evidence of the quality, scientific importance and impact of the research should be provided. This is likely to include citation metrics, qualitative or quantitative descriptions of a journal’s standing in its field, as well as other measures, such as changes in clinical practice or health policy. Where appropriate, other forms of evidence of scientific importance and impact of the research should be provided.” (82)

*Research contribution - Types of research contributions*

“Research impact (for example, reflected in changes in clinical practice or health policy, the introduction of innovative medicines or devices, or changes in health outcomes) should be documented, where applicable.” (83)

**Pacific Research**

*Platform of Research – Contextual Summary*

“Staff members are expected to use this section to make connections between different aspects of the portfolio, different themes of research undertaken, to address the overarching research
contribution to the staff member’s field and the impact of the research during the assessment period.” (87-88)

“The contextual summary is the place to describe how the staff member’s research work may have advanced modes of practice and contexts of dissemination and to highlight relevant peer esteem factors related to the research, such as external funding, awards and other relevant forms of external recognition.” (88)

**Research Outputs - Quality assurance**

“EPs may include information in the Description field on the citation of an output and the relative standing of a journal, publisher or conference. If metrics are cited (including Google Scholar), the EP should contextualise the citation within a discipline or subdiscipline. Staff members should provide such relevant contextual information, because there is no agreed list of journal rankings in New Zealand or Australia in most disciplines.

Staff members are encouraged to indicate the relative ranking of a journal in its field or subfield. For example, the acceptance rate for articles for that journal (if known) or other useful contextual information may be provided. Staff members should note, however, that although journal rankings may inform the assessment of journal quality, the primary focus of the Pacific Research Panel will be on the NRO itself. The Pacific Research Panel will assess outputs on their research merits according to the PBRF Definition of Research.” (89)

**Expectations for information to be provided about research outputs – Description**

“Staff members completing EPs may wish to indicate in some way the relative ranking and impact factor a journal may have. Where information in the form of impact indices is available, that information may be included in the Description field when describing why a research output represents one of the staff member’s best outputs. Similarly, staff could indicate the impact of one’s research for users of that research (including Pacific-focused users) drawing on robust but non-standard factors. The Pacific Research Panel recognises that subject areas have different impact indices and these indices will not be used as proxy for quality.” (90)

**Physical Sciences**

**Platform of Research – Contextual Summary**

“The Physical Sciences Panel would consider it useful to see a brief summary of the total publication record for the assessment period (including research outputs not included in the EP), which may include metrics such as total number of research outputs and categorisation by research output type (taking into consideration the 2,500 character limit of the Platform of Research – Contextual Summary field).” (95)

“Staff members may wish to provide total publication metrics (such as the number of citations received or the number of papers published in the assessment period) in this section.

All metrics should be contextualised by the staff member as part of the wider “story” about the quality of their research. If these are included, for example, total citations or h-index, the source of the information should be clearly stated (for example, Scopus, Web of Science, Google Scholar). The panel may check the number given but will not use an individual’s publication metric in assessing an EP if it is not quoted in the EP.” (95)
**Research outputs - Types of research outputs**

“Staff members are encouraged to indicate in some way the relative ranking of a journal within a discipline or subdiscipline along with any application and impact of their research.” (96)

**Research outputs – Quality assurance**

“Staff are encouraged to indicate the relative ranking of a journal in its field or subfield. For example, the acceptance rate for articles for that journal (if known) or other useful contextual information may be provided.

The panel, however, emphasises that while journal rankings may inform assessment of journal quality, it is the NRO that is being assessed.

Citations for NROs may be included and will be considered as part of a holistic appraisal of the EP. The source of the citation must be stated (for example, Scopus, Web of Science, Google Scholar).“(96)

**Expectations for information to be provided about Nominated Research Outputs – Description**

“When a journal article is cited as a research output, staff members are encouraged to provide any citation and publication metrics as supporting evidence. The source and basis of the metric value should be identified, for example, Google Scholar for period 2012 to 2017, or any other parameters used in the search (for example, including or excluding self-citation).

In most EPs, a small number of metrics should be selected that are most appropriate to the field and best support the case for quality and/or impact.

The *relative* ranking that a journal has in a disciplinary or subdisciplinary context may be provided and the source made explicit.” (97)

**Social Sciences and Other Cultural/Social Sciences**

**Expectations for information to be provided about research outputs - Description**

“EPs may include in the Description field information on the citation of an output and the relative standing of a journal, publisher or conference. If metrics are cited, the EP should contextualise the citation within a discipline or subdiscipline. There is no agreed list of journal rankings in New Zealand or Australia in most disciplines. Outputs will be assessed on their intrinsic research merit and according to the PBRF Definition of Research.

Where appropriate, staff members may choose to indicate citation counts or impact factors of the journals in which outputs are published. This can be either in relation to specific NROs, and included in the Description section for that NRO, or in relation to all research outputs within the assessment period, or for a longer period, and included in the Platform of Research – Contextual Summary.

EPs might include information in the Descriptive Field on the citation of an output and the relative standing of a journal, publisher or conference. If metrics are cited, the EP should contextualise the citation within a discipline or subdiscipline. The Social Sciences and Other Cultural/Social Sciences Panel will bear in mind that citation counts accumulate over time (so that counts will be less for recent articles than for earlier ones) and that impact factors differ markedly within different disciplines and subdisciplines. Such metrics are a guide only, and the panel will use them with caution.
While the panel will be primarily interested in assessing the quality of the NROs and the staff member’s contribution to them, it may also consider the quality of the outlets through which the research has been published. Staff members completing EPs may wish to indicate in some way the relative ranking a journal may have in any given field or discipline.” (106)

*Research contribution - Types of research contributions*

“Examples of peer esteem might include (but are not limited to)… citation counts” (108)