



UNIVERSITY OF SURREY

Open Research

RESPONSIBLE USE OF RESEARCH METRICS IMPLEMENTATION PLAN

MARCH 2021

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Introduction

1. Introduction

1.1 Initial Wellcome announcement

In January 2020 Wellcome released a statement entitled ***“Guidance for research organisations on how to implement the principles of the San Francisco Declaration on Research Assessment [DORA]”*** and opened a consultation to invite feedback from across the HE & related communities.

In response Surrey’s Pro-VC Research & Innovation commissioned an internal position paper to set out a proposed response, with consideration to Surrey becoming a DORA signatory. This position paper was co-written by the Open Research Analyst and the Academic Lead for Research Culture and Integrity in March 2020, and incorporates supporting information, including the Open Research Team’s response to the Wellcome consultation.

1.2 Revised Wellcome announcement

In response to the community consultation Wellcome released their final statement in September 2020 entitled: ***“Guidance for research organisations on how to implement responsible and fair approaches for research assessment.”¹***

The revised guidance has less focus upon DORA specifically, recognising that a broader approach and the inclusion of principles from other equivalent declarations (such as the Leiden Manifesto² and the UK Forum for Responsible Metrics [FFRM]³) may be more appropriate & effective for some universities:

“We recognise that many organisations will implement these core principles as part of a broader approach to promoting the responsible and fair use of metrics in line with other equivalent declarations, such as the Leiden Manifesto and the Hong Kong Principles .

However, there is no requirement for Wellcome-funded organisations to publicly endorse any declaration. We want organisations to implement responsible and fair approaches for research assessment in line with the two [core] principles, whether that is driven by commitments to one or more of these declarations or otherwise. “

The two core principles of DORA⁴ referred to above remain central to Wellcome’s expectations for institutions receiving Wellcome funding. These are:

¹ <https://wellcome.org/grant-funding/guidance/research-organisations-how-implement-responsible-and-fair-approaches-research>

² <http://www.leidenmanifesto.org/>

³ <https://www.universitiesuk.ac.uk/policy-and-analysis/research-policy/open-science/Pages/forum-for-responsible-research-metrics.aspx>

⁴ <https://sfdora.org/read/>

- i. *be explicit about the criteria used to evaluate scientific productivity, and clearly highlight that the scientific content of a paper is more important than publication metrics or the identity of the journal in which it is published*
- ii. *recognise the value of all relevant research outputs (for example publications, datasets and software), as well as other types of contributions, such as training early-career researchers and influencing policy and practice.*

1.3. Wellcome Expectations & Minimum Requirements

Wellcome explicitly state that by **January 2021** Wellcome-funded organisations should have as a minimum:

1. statement of commitment to implementing the DORA principles on their website – this should be prominent and accessible
2. plan for implementing the DORA principles, or a clear process in place for developing a plan (with a specified delivery date)
3. process in place for monitoring and reporting on progress.

All three requirements were in place at Surrey by January 2021 (details are given on page 7).

2. Proposal for Surrey's Response

This proposal sets out the suggested approach for Surrey to implement Wellcome's requirements and to use this as a catalyst to improve our use of research [biblio-] metrics within a responsible, fair and considered framework; thus benefiting all stakeholders.

There is potential to expand the scope of this initiative to engender consideration of the wider question of responsible research evaluation [beyond "metrics"] and to consider the responsible use of metrics within other aspects of the institution, beyond the research strategy.

Surrey has a respected institutional statement on responsible metrics already in place. Whilst this statement will be revised and repositioned as part of this project, the fundamental principles are constant and obtain consensus across the University. The statement is, however, currently a single text without any accompanying implementation resources.

The focus of this planning document is therefore upon the implementation of the responsible metrics principles contained in the statement, and to clearly connect the statement with **resources** and **practice**. The aim is to enable researchers, administrators and managers across the university to use metrics in a responsible & fair manner.

As the 2018⁵ report from the UK FFRRM noted:

Frameworks are the beginning, and not the end. *Frameworks on the responsible use of research metrics are the beginning of the process. Signing up to statements such as DORA, the Leiden Manifesto, The Metric Tide, and/or developing institutional policies on the use of research metrics does not alone ensure that metrics are used responsibly. **The challenge is the next step: implementing these principles.***

3. Benefits of Responsible & Fair Research Evaluation

The benefits of embracing these proposed steps towards responsible & fair use of metrics / research assessment include:

- The incorporation of a portfolio of metrics and indicators to provide a more holistic assessment of all aspects of research outputs.
- Increased recognition of the breadth & diversity of research outputs– and the breadth & diversity of their impact.
- Enfranchisement of different fields of research in approving which metrics and indicators, taken collectively, help to assess research outputs
- Examination of how measures of success are aligned to & derived from the mission, values, overarching strategic goals and objectives of the Research and Innovation Strategy
- An improved institutional appreciation of both the value and limitations of [biblio-]metric and related data; and enhanced bibliometric competencies.
- Improved transparency in bibliometric data which can result in improved accuracy and confidence in the data.
- Facilitation of more mindful publishing practices by researchers leading to potentially more thoughtful and germane publishing strategies.
- Clearer guidance on hiring and promotion best practices, making this transparent and visible thus enhancing responsible practices
- Alignment of these principles to broader efforts to enhance research culture, including open research.

The development and implementation of a responsible framework enables the institution to effectively utilise the intelligence available from bibliometric, bibliographic and related data.

As the FFRRM report states:

Metrics have a role to play to support narrative. *Information is increasing, and more understanding of what information is available across our diverse sector is needed. **The data boom presents opportunities,** as long as the use of data remains sensitive to disciplinary differences, interdisciplinarity, and unintended consequences. Metrics should not be ignored. Ignoring metrics has the potential to be as irresponsible as relying solely on them. They have a role to support narrative and peer review to inform decision making - but we need to get the balance right.*

⁵ <https://www.universitiesuk.ac.uk/policy-and-analysis/research-policy/open-science/The%20Forum%20for%20Responsible%20Research%20Metrics/UK%20progress%20towards%20the%20use%20of%20metrics%20responsibly%2010072018.pdf>

Implementation Plan 2020-21

This implementation plan is set out in ten steps; with planning, consultation, approval and the commencement of the project within the 2020-21 academic year. Completion of all actions is expected to take multiple years. An annual review (as required by Wellcome) is in place to review and (internally) report on progress.

The ownership and delivery dates of the individual steps are subject to change at each annual review.

1. Planning

Ownership: Open Research Working Group
Target Delivery: March 2021

The proposal and planning for the implementation of Wellcome’s “responsible & fair approaches for research assessment” is set out by:

- Open Research Analyst, Open Research, Library
- Academic Lead for Research Culture and Integrity

Wellcome state that there should “be a plan for implementing DORA principles, or a clear process in place for developing a plan (with specified delivery date)” by January 2021.

Key dates in this planning process have been:

- **September 2020:** Commencement of the process and collaboration of this implementation plan.
- **October 2020:** Completion of the draft implementation plan.
- **November 2020 to February 2021:** Consultation with key stakeholders.
- **December 2020:** Addition of a holding text to the current Responsible Metrics Statement with specific reference to this plan, to ensure compliance with Wellcome whilst the implementation plan is finalised.⁶
- **March 2021:** Revision of the implementation plan following stakeholder consultation.
- **March 2021:** Final implementation plan presented to the University Research & Innovation Committee for approval.

⁶ <https://www.surrey.ac.uk/library/open-research/research-metrics>

2. Consultation

Ownership: Open Research Working Group
Target Delivery: March 2021

This proposal has been discussed in consultation with the following key internal stakeholders.

- Pro-VC Research & Innovation (December 2020)
- Head of Research Performance (November 2020)
- Director of Library & Learning Services (February 2021)
- Chief People Officer (February 2021)
- Open Research Working Group*[ORWG] (November 2020)

*The Open Research Working Group is a cross-organisational forum of academic and professional services staff which includes the Associate Deans Research & Innovation and the Dean of the Doctoral College.

The feedback by these stakeholders on the draft plan has been incorporated into this final version. The draft plan, together with notes and feedback from the consultations, is available upon request.

3. Public Statements on Surrey.ac.uk

Ownership: Open Research Working Group; Strategic Planning
Target Delivery: 2021-22

3.1 Revision of Surrey's institutional statement on Responsible Use of [Research] Metrics

Surrey has a well-respected institutional statement on the responsible use of metrics, dated July 2017. A review & revision of this statement is timely.

Revisions and enhancements to include:

- Specific reference the main sector statements and manifestos (DORA, Leiden, FFRM) from which the statement principles and implementation plan is informed and derived.
- Reference to the series of resources and practices being developed to help actively support the responsible use of metrics across the institution; links to and signposting of relevant sector resources.
- The re-positioning of the statement onto a prominent place on Surrey.ac.uk - positioned on the Research Excellence pages & linked also to the Library Open Research pages - with a dedicated URL. This will enable easy referencing to the statement. It may also be beneficial to permit a PDF download of the statement.
- As per Wellcome's suggestion, the statement will "specify how the principles are aligned to the organisation's overarching vision, mission and values"

The statement will be drafted in collaboration with the ORWG. The pathway for approval is detailed in section 9.1.

3.2 Creation of a second public-facing statement reflecting the breadth & diversity of research outputs

A supplementary public statement (published alongside the main Responsible Use of Metrics statement) is proposed in order to support the Welcome-DORA principle to:

recognise the value of all relevant research outputs (for example publications, datasets and software), as well as other types of contributions, such as training early-career researchers and influencing policy and practice.

This second statement can provide an overview of the breadth and diversity of Surrey's research outputs and indicate how these are supported. For example, how many publications are published annually by Surrey; how our repository and departments support making research datasets and non-standard outputs available. The page may also reference the other aspects of impact mentioned by the DORA principle such as influencing policy and practice.

The statement will be drafted in collaboration with the ORWG and proposed to the Pro-VC Research & Innovation for approval or comment.

3.3 Creation of a standard reporting footnote to “stamp” bibliometric reporting with these statements

It is proposed that future bibliometric reports should contain a standardised footnote “stamped” with the URLs to both public statements to help reinforce the responsible use & interpretation of the reports by:

- Raising awareness of the importance of the statements, promoting mindful use of metrics, and acknowledging the limitations of the data provided.
- Placing each report within the context of Surrey's overall research activity and outputs, as each report, will usually only focus upon a fragment of this whole.

This standardised footnote will support the second principle of the UK Forum for Responsible Metrics:

***Humility** – recognising that quantitative evaluation should support, but not supplant, qualitative, expert assessment*

3.4 An open version of this implementation plan

It is proposed that, once approved, a distilled version of this implementation plan is made available on the Surrey.ac.uk webpages.

Making an abridged version publicly available can help underscore Surrey's commitment to these principles, increase transparency and adhere to the principles of “openness” in research culture.

4. Training & Resources

Ownership: Open Research Working Group; Open Research Team (Library); Doctoral College
Target Delivery: 2022-23

It is recognised that there are insufficient resources to support the practical application of responsible metric principles for both Researchers and Professional Services colleagues.

There is a need for resources and training materials to enable this practical application, to raise awareness of alternative metrics [i.e. to the Journal Impact Factor] and to encourage mindful choices.

The creation & provision of sufficient resources and training will become an ongoing initiative under review. This initial stage is a consultation and “learning needs analysis” across various constituents to ensure that appropriate training resources are delivered, effectively & efficiently.

4.1 Consultation & Learning Needs Analysis

A consultation across the various constituents (including ADRIs, ECRs, established researchers, research directors and professional services colleagues) is required to create a “training needs analysis”. This will enable the identification of any resources or trainings necessary to enable both Researchers and Professional Services colleagues to practically apply the principles of responsible use of metrics.

4.2 Survey of resources openly available

A survey of resources available from other institutions and relevant sector bodies can help identify where any resources are already available that we can effectively utilise.

4.3 Planning of Resources & Training Schedule

Upon completion of the consultation (4.1) and survey (4.2) any resources or trainings considered as necessary or beneficial can be identified. A schedule for development is recommended to assess and enable planning and delivery; this can be reviewed and time-tabled as part of the annual review (10.4). The identification and design of any resources and training will be in consultation with the Open Research Working Group.

The delivery date of 2022-3 refers to items 4.1, 4.2 and 4.3. The delivery of the resources will be subsequent to this; scheduled as part of 4.3.

The necessity of such resources in creating a culture in which metrics are used responsibly is acknowledged within the FFRRM report:

Metrics competencies. *The competencies of those implementing and interpreting metrics needs to be tested and improved. HEIs should address the unconscious bias of assessors (regarding their interpretation of research metrics, and peer review), and provide suitable training to raise awareness. It*

is important to remember that that not all researchers, and assessors will become bibliometric experts, however it was suggested that there would be benefit to the development of a minimum competency level for users.

5. Research Field Diversity

Ownership: Open Research Working Group; Associate Deans Research & Innovation
Target Delivery: 2022-23

One of the five principles of the UK Forum for Responsible Metrics is:

Diversity – *accounting for variation by research field, and using a range of indicators to reflect and support a plurality of research and researcher career paths across the system*

The sixth principle of the Leiden Manifesto states:

Account for variation by field in publication and citation practices. *Best practice is to select a suite of possible indicators and allow fields to choose among them.*

That research, publication and citation practices vary significantly between research fields is well-appreciated at Surrey. Further exploration and consultation around the range of research metrics and sources can further support this aspect of responsible use of metrics.

This can enable the mindful selection of the most appropriate metrics per research field, and offer alternate choices to the most commonly used ‘default’ metrics when this is beneficial.

5.1 Consultation with ADRIs

Consultations will be held with the Associate Deans of Research & Innovation (& other key stakeholders as appropriate). These consultations should discuss which metrics & indicators taken collectively, may form a helpful impression of research outputs and their impact for the various subject areas and research fields.

Areas of consideration may include:

- Which citation, publication and other biblio- metrics and indicators are most appropriate
- Which non-citation-based indicators of research outputs are most appropriate
- Which data-sources provide the most valuable data & concerns with data-source coverage
- What publication & metrics time-frame offers the fairest period for evaluation
- How the various research outputs and publication types should be considered
- What the particular concerns are in terms of inappropriate metrics within the Faculty context

Ideally, each conversation should be linked to the question of the research mission & values [item 8.1.]

5.2 Portfolio of Indicators

An outcome of these consultations should be the creation of a simple guide to a portfolio of indicators which reflects and supports the plurality of research and research outputs, indicating when certain research fields adopt additional metrics or lack confidence in particular metrics.

6. Human Resources: Recruitment & Promotion

Ownership: Open Research Working Group; Human Resources
Target Delivery: 2022-23

One of the two key principles from DORA for institutions is to:

Be explicit about the criteria used to reach hiring, tenure, and promotion decisions.

The Leiden Manifesto's seventh principle supports this:

Base assessment of individual researchers on a qualitative judgement of their portfolio. The older you are, the higher your h-index, even in the absence of new papers. Reading and judging a researcher's work is much more appropriate than relying on one number. Even when comparing large numbers of researchers, an approach that considers more information about an individual's expertise, experience, activities and influence is best.

Responsible and fair research assessment within the context of recruitment and promotion is at the centre of Wellcome's guidance and forms an ongoing development.

Wellcome's guidance requires that, especially for Early Career Researchers, HR materials clearly highlight that ***"the scientific content of a paper is much more important than publication metrics or the identity of the journal in which it was published"***.

The following items are identified as a priority as part of this implementation plan:

6.1 Review of language

A review of the language presently used in recruitment job descriptions and adverts will be conducted. This will be used to inform the guidance required for the rubric (6.2 and 6.3). This review will also enable the assessment of the impact of this guidance as part of the (internal) monitoring and reporting on progress required by Wellcome.

6.2 Creation of a rubric for Human Resources

Following consultation with the Chief People Officer, a rubric, or set of checklist guidelines, was requested. Human Resources can then check submitted job descriptions and adverts against this rubric to ensure adherence to the Wellcome-DORA principles.

The rubric will be informed by the suggestions made by senior stakeholders as part of the consultation.

6.3 Creation of a rubric & guidance for recruiting academics

The importance of guidance, training, or a similar rubric for academics involved in recruitment is also noted.

In practice, the recruitment process for researchers often takes place in a decentralised manner, with individual researchers & groups recruiting for projects and departments (with the support of Faculty HR Managers). This includes the composition of job descriptions, advertisements and setting criteria. The creation of a resource which those recruiting can refer to would foster awareness of the Wellcome-DORA principles.

This resource should:

- Provide advice on best practice.
- Explain which terminologies are considered egregious (such as inappropriate use of “journal impact factor” and the various synonyms)
- Specifically, this should explain the reasons why such criteria are considered detrimental to the recruitment process – for example, that some bibliometrics were never designed to be applied on the scale of the individual, that certain metrics can disadvantage researchers with a non-conventional career path, or researchers who have taken a career break.

6.4 Clarity & guidance for promotion criteria

Establishing clarity on any research-output-related criteria which are used as factors in promotion decisions would be beneficial and further support the responsible use of metrics.

The creation of a resource which guides researchers applying for promotion on how to create a “profile” using responsible bibliometrics, other indicators of impact, and contributions to innovation, may be helpful and aid equitability (as the resource will be accessible to all).

Similarly, guidance for promotion board members would reinforce the responsible use of metrics and foster awareness of this Wellcome-DORA principle.

6.5 Alignment of recruitment & promotion with the research mission

Ideally, the [metric] evaluation utilised in recruitment & promotion should increasingly align with the research and innovation mission [section 8, below].

7. Researcher Profiles & Transparent Data

Ownership: Open Research Team (Library)
Target Delivery: 2022-23

The second principle of the Forum for Responsible Metrics is:

Transparency – *that those being evaluated can test and verify the results*

This aligns also with the fifth principle of the Leiden Manifesto:

Allow those evaluated to verify data and analysis. *To ensure data quality, all researchers included in bibliometric studies should be able to check that their outputs have been correctly identified. Everyone directing and managing evaluation processes should assure data accuracy, through self-verification or third-party audit. Universities could implement this in their research information systems and it should be a guiding principle in the selection of providers of these systems. Accurate, high-quality data take time and money to collate and process. Budget for it.*

Whilst bibliometric tools and sources are available to all colleagues, and although these are actively used in management reporting, and are available within the public domain, there is perhaps not enough awareness of how the data-sources are interlinked and can be better managed (& verified) by researchers.

Promoting this awareness, emphasising transparency and encouraging self-verification may help to significantly improve data-quality, reassure research colleagues of the reporting processes, and fulfil this principle of responsible metrics.

The following steps are suggested:

7.1 Single, coherent message on Research Profiles

The management of research profiles across the university currently involves disparate messaging per data-source and multiple Professional Service departments (including the Library, RIS and HR).

A single, cohesive message to researchers explicitly stating which data-sources and researcher-profiles constitute which reporting and outcomes, incorporating statements about ORCID, Scopus, Web of Science, GoogleScholar and other profiles (& their inter-connection & recommended actions) would be beneficial. The messaging should promote clarity & transparency.

It is noted that whilst such a single, coherent message is welcome, we also need to preserve diversity where sensible.

7.2 Encouragement of researchers to actively “own” and self-verify their profiles

The benefits for researchers actively “owning” their external profiles, especially with bibliometric data being in the public domain, should be communicated. Encouraging researchers to do so benefits both the researcher and the institution; this also provides the opportunity for researchers to self-verify their data.

Dealing with such profiles is often considered “admin” by many researchers and often postponed. The following may help:

- An annual email to remind / encourage research colleague to check-in with & verify their profiles
- Engaging the assistance of departmental administrators who may be able to support the administrative checking

7.3 Support for the correction of errors

The Library can provide information on how to correct external researcher profiles (where the error is within the researcher’s control) and help to systematically report errors (which are due to the data provider). These processes can be managed by the Bibliometric Support Officer via the Open Research Team.

The Library, moreover, has a role in trying to ensure some accountability for errors by providers. The data accuracy of tools should form part of the annual review (Item 10) and be a critical question in the subscription to the data-sources.

8. Linking Evaluation to Research Mission

Ownership: Research Strategy
Delivery: TBC

The Leiden Manifesto’s second and ninth principles state:

Measure performance against the research missions of the institution, group or researcher. *Programme goals should be stated at the start, and the indicators used to evaluate performance should relate clearly to those goals. The choice of indicators, and the ways in which they are used, should take into account the wider socio-economic and cultural contexts. Scientists have diverse research missions. Research that advances the frontiers of academic knowledge differs from research that is focused on delivering solutions to societal problems. Review may be based on merits relevant to policy, industry or the public rather than on academic ideas of excellence. No single evaluation model applies to all contexts.*

Recognize the systemic effects of assessment and indicators. *Indicators change the system through the incentives they establish. These effects should be anticipated. This means that a suite of indicators is always preferable — a single one will invite gaming and goal displacement (in which the measurement becomes the goal).*

Wellcome’s guidance on the implementation of responsible and fair research evaluation practices presents the opportunity to question research evaluation practices and key performance indicators on a strategic level.

As the Leiden Manifesto, and other sector statements suggest, the starting point for developing meaningful evaluation indicators should be the research mission. The aims the research strategy (whether on the institutional, faculty, group or individual level) is seeking to achieve should be clearly identified – and then **the measure and indicators should be derived from this**.

This principle is also stated within INFORM’s Scope model⁷: S - Start with what you value.

8.1 Exploratory discussion with stakeholders

This is the most amorphous and ambitious of these suggested implementation steps. The first stage in linking evaluation to Surrey’s research mission in a more precise manner would be an exploratory discussion with the key (internal) stakeholders to clarify the diverse aims and goals of the strategy. The present strategy refresh may provide an opportunity for this.

The delivery date for this item is TBC as the strategy review & refresh is ongoing as of March 2021.

8.2 Development of appropriate indicators

Indicators which are derived from and clearly relate to these goals can then be developed. This may initially be in a partly-experimental manner with some trialling. However, such accurate and bespoke measurement can help to bring focus to the strategy goals. Moreover, this exercise could help to expose any cases in which metrics / indicators conflict with each other, or with other goals.

9. Announcement & Leadership Endorsement

Ownership: Pro-Vice Chancellor Research & Innovation

Target Delivery: Summer 2022

The FFRRM report notes the importance of management endorsement:

Senior buy-in. *Success will rely upon frameworks/policies having owners. Senior management buy-in is important to changing culture within an institution, but HEIs cannot act alone and all stakeholders must engage, including: researchers, research organisations, data providers, funders, and industry.*

⁷ <https://informs.net/wp-content/uploads/2020/05/scope.pdf>

9.1 Endorsement of the revised responsible metrics statement

The revised responsible metrics statement should be approved by the Pro-VC Research & Innovation, and through URIC. It would be beneficial to also have the statement endorsed on the surrey.ac.uk website by the Pro-VC Research & Innovation.

9.2 Announcement of the responsible metrics implementation plan

Wellcome encourages institutions to state clearly if they are DORA signatories or if they have chosen to “adopt equivalent or enhanced principles and procedures” and to outline the key steps being taken to “implement and embed these principles”.

An announcement of the revised statement and accompanying implementation plan would therefore bring confidence to the Surrey community that the institution is acting upon Wellcome’s guidance with steps that should ultimately enhance our research culture.

9.3 Ownership from senior leadership

The Pro-VC Research & Innovation is the Executive Board owner of this implementation plan, adhering to Wellcome’s suggest that institutions ensure that “one or more senior leaders take ownership for championing the principles and their implementation, as part of broader efforts to enhance research culture”.

10 Establishment of an Annual Review [s]

Ownership: Open Research Working Group; Strategic Planning
Target Delivery: 2022-23

The tenth principle of the Leiden Manifesto: advises institutions to:

Scrutinize indicators regularly and update them. *Research missions and the goals of assessment shift and the research system itself co-evolves. Once-useful metrics become inadequate; new ones emerge. Indicator systems have to be reviewed and perhaps modified.*

The fifth principle of the UK Forum for Responsible Metrics encourages:

Reflexivity – *recognising and anticipating the systemic and potential effects of indicators, and updating them in response*

The following reviews are suggested to enable Surrey to establish the ongoing development of responsible and meaningful research output metrics:

10.1 Establishment of practical reporting principles

To complement the strategic questions regarding research mission, the establishment of a set of prosaic reporting principles may be helpful. These can begin to establish institutional reporting norms and be recommended as basic guidance.

In particular, this is intended to support the eighth principle of the Leiden Manifesto:

Avoid misplaced concreteness and false precision. *Science and technology indicators are prone to conceptual ambiguity and uncertainty and require strong assumptions that are not universally accepted. The meaning of citation counts, for example, has long been debated. Thus, best practice uses multiple indicators to provide a more robust and pluralistic picture. If uncertainty and error can be quantified, for instance using error bars, this information should accompany published indicator values. If this is not possible, indicator producers should at least avoid false precision.*

Such reporting principles may include:

- A suggested level of numerical accuracy for metrics (ie. if an FWCI is better stated to one decimal place only) and suggested integers for citation counts.
- If a minimum number of publications, or a minimum passage of time, should be required to stabilise post-publication metrics & make any aggregate metrics valid
- To what extent reports should be annotated or accompanied by interpretative narrative: the balance of qualitative and quantitative information

10.2 Establishment of an Annual Review of research reporting

An annual review of research reporting is recommended.

The INFORMS Research Evaluation Working Group's SCOPE model of research evaluation closes with final stage of "evaluate your evaluation".

To ensure that such a review is achievable, the review can be framed around a concise set of considerations, for example:

- Review of research-output related-management reporting, the metrics and indicators used – and how can these be improved?
- Review and summarisation of the research intelligence gleaned from such reports.
- Review of the data-sources used to ensure their efficacy.

This review may be separate or coupled with the review of progress against this implementation plan [10.4]. Initially a "light-touch" annual review with a "deeper dive" every three years is suggested.

10.3 Establishment of baseline status of Wellcome's core responsible metrics principles

Surrey's current status [baseline] on the core Wellcome / DORA principles, and the items set out above, should be established at the commencement of the plan. This will enable meaningful monitoring of progress against this baseline and measure the effectiveness of the implementation plan.

This should include reference to the good practices already in place (such as the Annual Output Review process with its investment in expert peer assessment; and the Open Research Working Group with a cross-organisation membership).

10.4 Annual Review of progress against this implementation plan

Wellcome states that: "Organisations are required to have a process in place by January 2021 to monitor their progress in implementing the principles and ensure this progress is reviewed over time."

This internal review will be reported to URIC.

This review can incorporate:

- Decision on the best frequency, timing and criteria of these reviews.
- Collation of internal quantitative & qualitative information to assess the impact of the implementation (eg. regarding HR; resource / training provision).
- Review of the implementation plan and the re-setting of any further actions.
- The review of new, emerging good practice within the wider research & scholarly community with regular consideration of becoming a signatory to DORA or other sector statements.
- Creation of a report to document and evidence this progress.