Researcher
Impact Framework

BUILDING AUDIENCE-FOCUSED, EVIDENCE-BASED IMPACT NARRATIVES

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" A high-level goal is for Trinity to identify and deliver opportunities for local and global impact that exemplify the diverse forms of scholarship that are part of the Trinity research landscape, and drive impact to new heights."

Research Charter, 2019, Trinity College Dublin

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Introduction

THE CONTEXT

In 2020, Trinity College Dublin embarked on a Research Impact Pilot to begin a discussion to broaden thinking around research impact. The Researcher Impact Framework (RIF) is one of the outputs of the Research Impact Pilot.

THE GAP

There are multiple resources to help researchers plan for and communicate a research project's predictive impact when applying for funding. Fewer resources have been developed to help individuals communicate their own impact in award applications, funding proposals, and promotion processes. Dr Giovanna Lima, Research Impact Officer based in the Trinity Long Room Hub Arts and Humanities Research Institute, and Sarah Bowman, Director of Strategic Engagement and Impact Assessment in the Office of the Dean of Research, created the RIF to address this gap.

OUR ANSWER

The RIF provides a structure for crafting audience-focused, evidence-based impact narratives that connect scholarly activities, reach, use, and relevance data to scientific and societal outcomes. Two bespoke digital databases are included alongside the RIF to encourage and assist researchers in capturing their impact across a range of scholarly activities.

ANOTHER TOOL FOR THE TOOLBOX

The RIF and databases are designed to be used by researchers, especially when crafting the personal statements, track records, and CVs required for fellowship positions, award applications, and promotions processes. The RIF and the databases supplement the wealth of skills and tools already used by researchers when building their careers or demonstrating the value of their research. While we anticipate researchers will most likely use the RIF for narrating retrospective impact, it may also help with crafting predictive personal impact and planning for impact.

We hope researchers adopt, adapt, and amplify the RIF to make it a valuable resource on their research journeys.

Dr Giovanna Lima and Sarah Bowman

Why a Researcher Impact Framework?

From engaging with the media to applying for research positions or submitting funding proposals, researchers are increasingly required to showcase and articulate the relevance of their achievements to different audiences inside and outside academia. While once considered self-evident to all involved, especially within academia, this is no longer the case. A list of publications, with their appropriate publishers, and more recently the citation count of those publications, is no longer enough to communicate and evidence achievements and their relevance.

The assessment, recognition, and reward of research and researchers within Higher Education Institutions and Research Performing Organisations are undergoing profound changes. From initiatives such as the *San Francisco Declaration on Research Assessment (DORA)*[1] and the *Hong Kong Manifesto for Assessing Researchers*[2] to the increasing importance of research impact beyond academia, the focus has been on expanding the visibility of scholarly contributions and broadening the scope of indicators of success. Expanding our understanding of what it means to lead a successful and rewarding academic life is beneficial. The level of complexity involved in research assessment, however, is increasing the demand for researchers to understand, identify, monitor, and communicate achievements in a way that is meaningful to those assessing while being authentic and comprehensive to the researcher.

The RIF aims to assist researchers in building and communicating a comprehensive awareness of their scholarly labour with accurate impact statements and supporting indicators. Designing a framework that is generic enough to accommodate a range of career trajectories, disciplines, cultures, and geographies is a challenge. Researchers and research institutions are encouraged to adapt this model to their criteria, methods, expectations, and priorities.

The RIF aims to support researchers in identifying, recognising, and valuing the multiple activities of academic life. In the RIF, scholarly activities and their outputs are aligned to their potential relevant societal outcomes and impact areas from the *Résumé for Researchers*[3] and tied to potential impact indicators, all underpinned by *HuMetricsHSS* values.

Researchers can utilise the RIF to showcase a broad spectrum of impacts using audience-specific, evidence-based narratives.

1   https://sfdora.org
2   https://journals.plos.org/plosbiology/article?id=10.1371/journal.pbio.3000737
3   https://royalsociety.org/topics-policy/projects/research-culture/tools-for-support/resume-for-researchers/
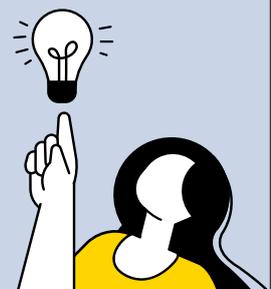
Introducing the Researcher Impact Framework

The RIF encourages researchers to connect scholarly activities and their impact indicators to scientific and societal outcomes grouped in four impact areas:

1. Generation of knowledge;
2. Development of individuals and collaborations;
3. Supporting the research community; and
4. Contributions to broader society.

The RIF builds upon the recent research impact and assessment trends and is grounded in the transdisciplinary Campus Engage *Engaged Research Impact Framework*[4], *Vitae Researcher Development Framework*[5], and *Résumé for Researchers* format.[6] The RIF gives a structure to connect five building blocks to help the researcher craft audience-specific, evidence based impact narratives:

1. Impact areas;
2. Outcome statement;
3. Scholarly activity;
4. Evidence; and
5. Sources.
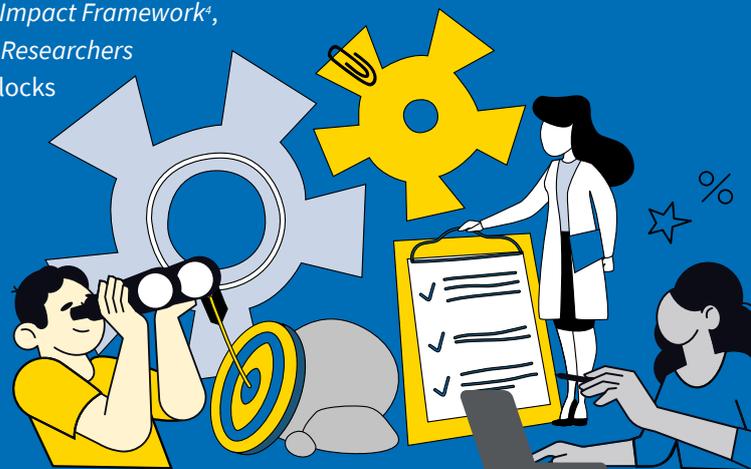
Scholarly and research-related activities have important scientific and societal outcomes that are valued by researchers, both within and beyond their disciplines, as well as by research institutions, research partners, funders, and society, including policymakers, industry, and members of the public. Understanding and challenging assumptions about what researchers do, why their activities are important, and how these activities can be assessed can improve the understanding of scholarly life and associated contributions. Expectations about assessment of research and researchers have changed in recent decades, coalescing around the idea of responsible research assessment (RRA).[7,8] Increased emphasis on the societal impact of research is in parallel to the demand for a broadening of research metrics used for research assessment.

4   https://www.campusengage.ie/wp-content/uploads/2022/03/Updated-Final-PBS10581-IUA-Engaged-Research-Planning-for-Impact-Framework-2022-Update_V5.pdf
5   https://www.vitae.ac.uk/researchers-professional-development/about-the-vitae-researcher-development-framework/developing-the-vitae-researcher-development-framework
6   https://royalsociety.org/topics-policy/projects/research-culture/tools-for-support/resume-for-researchers/
7   See more in Curry, S., de Rijcke, S., Hatch, A., Pillay, D., van der Weijden, I. and Wilsdon, J. (2020) The changing role of funders in responsible research assessment: progress, obstacles & the way ahead. RoRI Working Paper No. 3., November 2020. https://rori.figshare.com/articles/report/The_changing_role_of_funders_in_responsible_research_assessment_progress_obstacles_and_the_way_ahead/13227914
8   CoARA (2022). The Agreement on Reforming Research Assessment. https://www.scienceeurope.org/news/rra-agreement-final/

Researchers are now faced with increasingly novel (and sometimes complex) requirements to showcase their personal impact using a diverse set of impacts, indicators, and metrics. Research proposals, career progression applications and awards are often based on impact. Researchers are asked, for example,

"*to **outline their broader contribution** to research through teaching, public engagement, academic administration*"[9]

or

"*to summarise your research, **providing evidence of the transformational nature of your activities.***"[10]

The focus on impact has been accompanied by the emergence of contextual or narrative-based CV formats. These are now being piloted and adopted by funders, including the Health Research Board, Science Foundation Ireland, the Swiss National Science Foundation, the Dutch Research Council, the Luxembourg National Research Fund, and UK Research and Innovation.[11, 12] A narrative CV provides a structured written description of a researcher's contributions and achievements that reflects a broad range of relevant skills, experiences, and competencies.

A leading style of narrative CV is the *Résumé for Researchers* (R4R), a tool launched by the Royal Society (UK) in 2020 to support the evaluation and assessment of an individual's varied research contributions in a recognition that

"*a researcher's overall contribution to research goes beyond their easily attributable outputs and impact.*"[13]

The R4R includes space for a personal statement and four modules to highlight contributions to knowledge generation, the development of others, the research community, and wider society. This format is being widely adopted in the European research landscape.

> " By instilling standards and structure into the evaluation process, narrative formats have the potential to encourage fair and responsible research assessment because qualitative information can then be assessed more evenly across a pool of applicants. "
>
> **FRITCH ET AL., 2021**[14]
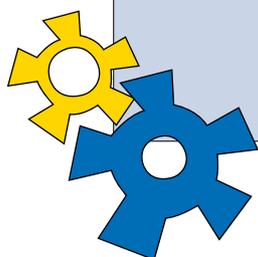
9   Track-record template guideline for Irish-based funding scheme.
10   Irish HEI career progression form.
11   Hatch, A., & Curry, S. (2020). Changing how we evaluate research is difficult, but not impossible. In eLife (Vol. 9). eLife Sciences Publications, Ltd. https://doi.org/10.7554/elife.58654
12   Fritch, R., Hatch, A., Hazlett, H., & Vinkenburg, C. (2021). Using Narrative CVs: Process Optimization and bias mitigation. Zenodo. https://doi.org/10.5281/zenodo.5799414
13   The Royal Society (2020). Résumé for Researchers. https://royalsociety.org/topics-policy/projects/research-culture/tools-for-support/resume-for-researchers/
14   Fritch, R., Hatch, A., Hazlett, H., & Vinkenburg, C. (2021). Using Narrative CVs: Process Optimization and bias mitigation. Zenodo. https://doi.org/10.5281/zenodo.5799414

The change in research culture presents new challenges for the research system, including the need for guidelines for writing and assessing narrative formats.[15] Although challenging, these shifts are ultimately positive when it comes to diversifying career paths and profiles; recognising and rewarding greater diversity in competencies, skills, and talents; and placing emphasis on quality, content, scientific integrity, creativity, contribution to science, academia and/or society.[16] It also helps recognise and reward the dependencies that underpin a healthy knowledge system. Activities such as peer-reviewing, community engagement, and project management are vital for scholarly outputs and should have a space to be acknowledged, assessed, and celebrated.[17]

The RIF is designed to support researchers in addressing commonly faced challenges when they are writing narrative CVs, including:

➜ *Where to describe what information, while avoiding redundancy and repetition.*

➜ *How best to document and evidence the quality of outputs, contributions, and activities.*

➜ *How to select examples of activities and outcomes that demonstrate quality, wider contribution to leadership, culture, practice, and society".*[18]

The RIF is designed with researchers in mind. Other users may benefit from the RIF, including institutions seeking to produce guidance on narrative-based efforts and research managers designing training for researchers.

Along with framing how activities are connected to their outcomes, the RIF provides a list of evidence, indicators, and metrics that can be used to support a researcher's impact narrative.[19] It is important to remember that these metrics should be used responsibly, in line with the principles and values of research assessment that underscore the development of the RIF. Researchers should be aware of the potential limitations of metrics, choose the metrics that most accurately represent their achievements, and refrain from using metrics that misrepresent their contributions.

Evidence points, indicators, and metrics are fundamental in all impact narratives to provide substantiation to the impact claims. Effective impact narratives include both qualitative and quantitative data. The metrics shared in the RIF are widely used. Information on applications and limitations are addressed in *The Metrics Toolkit*.

15   Meadmore K., Recio-Saucedo A., Blatch-Jones A. et al. (2022) Thematic framework for exploring the use of a narrative CV, initial findings from secondary analysis of Royal Society data [version 1; not peer reviewed]. NIHR Open Res, 2:15 (document). https://doi.org/10.3310/nihropenres.1115179.1
16   VSNU, NFU, KNAW, NWO and ZonMw. (2019) Room for everyone's talent: towards a new balance in the recognition and rewards for academics. https://recognitionrewards.nl/about/position-paper/
17   Agate, N., Kennison, R., Konkiel, S. et al. (2020) The transformative power of values-enacted scholarship. Humanit Soc Sci Commun 7, 165. https://doi.org/10.1057/s41599-020-00647-z
18   Adams, E., Casci, T., Padgett, M., and Alfred, J. (2021). Narrative CVs: Supporting applicants and review panels to value the range of contributions to research. University of Glasgow. [pdf]. https://www.gla.ac.uk/media/Media_804252_smxx.pdf
19   The initial list of scholarly activities was adopted from Welzenbach, R. (2020). Research Impact Challenge. University of Michigan Library. https://guides.lib.umich.edu/research-impact-challenge

THE METRICS TOOLKIT

The Metrics Toolkit[20] provides evidence-based information about research metrics across disciplines, including how each metric is calculated, where researchers can find it, and how each should (and should not) be applied. Researchers will also find examples of how to use metrics in grant applications, CVs, and promotion processes. It includes expert-written, time-saving summaries for the most popular research metrics, with appropriate use cases and limitations of the metrics. It is important to note that article-level or book-level metrics like citations and downloads are all compliant with the Declaration on Research Assessment (DORA). H-index and Journal Impact Factors should be avoided. DORA recommends researchers

"*use a range of article metrics and indicators on personal/ supporting statements, as evidence of the impact of individual published articles and other research outputs***"**

so there is no problem associated with using article-level metrics. Researchers should also follow specific guidelines that are audience-appropriate.

The Researcher Impact Framework

The RIF organises five building blocks of information required for crafting an impact narrative. In this section, we present how these building blocks interact and how researchers can apply them to deliver impact stories. These are: 1. Impact Areas; 2. Outcome Statement; 3. Scholarly Activity; 4. Evidence; and 5. Sources.

IMPACT AREA:

This is the main area of impact the researcher is articulating key achievements against. The RIF is compliant with DORA principles and uses the four modules of the R4R to organise information: 1. Generation of knowledge; 2. Development of individuals and collaborations; 3. Supporting the research community; and 4. Contributions to broader society.

OUTCOME STATEMENT:

This statement connects the scholarly activities to their outcomes. The evidence and data sources selected should be appropriate to the impact narrative.

SCHOLARLY ACTIVITY:

These are the activities performed by the researcher in their scholarly life. Connecting these activities to outcomes in the impact narrative illustrates the value to beneficiaries aligned with what the researcher wished to accomplish in undertaking these efforts.

EVIDENCE:

The reach, use, and relevance data in this block capture how the scholarly activities and their outputs are (a) affecting beneficiaries, (b) being shared and used, and (c) the relevance of this to stakeholders. It seeks to elicit both qualitative and quantitative data on what is different because these scholarly activities are in the world.

SOURCES:

This section captures the data sources used to corroborate the evidence to encourage transparency, reproducibility, and rigour in impact assessment. It ensures that evidence is appropriate and substantiates the articulation of impact.

CONNECTING IMPACT BUILDING BLOCKS

The RIF building blocks connect scholarly activities, evidence, and data sources to their outcomes. The blocks are then used to craft the impact narrative.

IMPACT AREA:

This table organises information against one of the four impact areas: 1. Generation of knowledge; 2. Development of individuals and collaborations; 3. Supporting the research community; and 4. Contributions to broader society.

OUTCOME STATEMENT:

This is a concise, unifying statement that captures the value of the activities.

SCHOLARLY ACTIVITY	EVIDENCE: REACH, USE, RELEVANCE DATA	SOURCES
Activities performed by researchers in their scholarly life, aligned by impact area and outcome.	Based on the activities and outputs, this block answers: ➜ Who do the activities and outputs reach? ➜ How are the outputs used or shared? ➜ What is the relevance of the scholarly activities and outputs in the world?	This section clarifies the sources of the reach, use, and relevance data to encourage transparency, reproducibility, and rigour in impact assessment.

IMPACT NARRATIVE:

Based on the content above, this is the articulation of how the scholarly activities delivered upon the outcome and made progress against the impact area. To the greatest extent possible, the impact narrative should clearly state the **ROLE** played by the researcher, **WHO** benefitted, **HOW** they benefitted, and **WHEN** that benefit occurred. All of this information must be corroborated by reasonable, appropriate, and time-bound **EVIDENCE**.

The narrative is underpinned by the shared **VALUES** agreed between the researcher, funder, host institution, and stakeholders. The resulting content should be delivered in an audience-appropriate format.

The model is the same for all four impact areas, with the researcher selecting an activity, the evidence that corroborates its impact, and summarising it in an impact narrative focused on the outcomes of activities rather than the activities themselves.

KEY ACHIEVEMENTS IN THE GENERATION OF KNOWLEDGE

The narrative in this impact area aims to convey to the reader that the researcher is a creative and critical thinker with an understanding of subject knowledge who contributes to innovation and to theoretical knowledge and/or its practical applications. The focus is on how the activities and outputs are (a) relevant contributions to the discipline and beyond, (b) reach intended and unintended audiences within and outside academia, and (c) are used in relevant contexts.

Outcomes associated with the activities in this impact area can be framed as relevant or contributing to:

➔ progress of knowledge, the formation of disciplines, training, and capacity-building;

➔ changes in research focus or development of new areas of study;

➔ development of innovative methodologies, equipment, techniques, technologies, and cross-disciplinary approaches.

Generation of and mobilisation of knowledge activities and outputs are increasingly fundamental to the knowledge economy. These may include:

SCHOLARLY ACTIVITY	EVIDENCE: REACH, USE, RELEVANCE DATA	SOURCES
➔ Presenting a paper or poster at a conference ➔ Editing a collection of essays ➔ Writing book reviews ➔ Serving as a peer-reviewer ➔ Building/creating a digital scholarly project/web-based scholarship ➔ Managing a lab or research team ➔ Conducting clinical work ➔ Applying for/securing grant funding ➔ Sharing research data ➔ Completing an invention disclosure	➔ Number of downloads, access ➔ Field-weight citation impact / ratio ➔ Number / quality of scholarly / policy citations ➔ Wikipedia citations ➔ Quotes from reviewers ➔ Reference in news / blog articles ➔ Number of libraries that hold the publication ➔ Use in syllabus in other Universities ➔ Number and diversity of speakers and attendees at events ➔ Disciplines present ➔ Number of submitted grants ➔ Amount of funding received ➔ Indications of data reuse ➔ Patents	➔ Publisher's websites ➔ PlumX Dimensions ➔ Google Scholar ➔ Overton ➔ Altmetric ➔ Publons ➔ Subject and/or institutional repositories ➔ Own data ➔ Press releases ➔ Web search ➔ WorldCat ➔ Open Syllabus ➔ Conference organisers ➔ Website traffic data ➔ Funder website ➔ Patents office ➔ Dimensions

KEY ACHIEVEMENTS IN THE DEVELOPMENT OF INDIVIDUALS AND COLLABORATIONS

The narrative in this impact area aims to demonstrate how the researcher is an exemplar of collegial behaviour, engages in supportive practices and relationships with others, nurtures talent, and helps develop skilled researchers. The narrative and evidence will focus on the quality, diversity, and consequences of such collaborations and relationships, both nationally and internationally, and how these benefitted the individuals and communities engaged by the researcher. Evidence will primarily take the form of qualitative descriptions. Personal stories (with due respect to individuals' privacies and applicable ethical requirements), for example, help showcase contributions that often can be hard to evidence. A testimonial or first-hand account from a beneficiary offers a powerful and substantiating impact narrative.

An impact focus on these activities highlights how they contribute to:

➡ enhancing the research capacity, knowledge, and skills of the next generation of researchers;

➡ attracting and retaining talent;

➡ increasing access to state-of-the-art knowledge by leveraging extra-institutional expertise; and

➡ international relations and the international profile and reputation of Ireland.

Activities and their relevant indicators and sources for Development of Individuals and Collaborations include:

SCHOLARLY ACTIVITY	EVIDENCE: REACH, USE, RELEVANCE DATA	SOURCES
➡ Teaching a course ➡ Developing a syllabus ➡ Developing on open access course ➡ Advising / Supervising students ➡ Hiring, training, or supervising student interns or research assistants ➡ Writing letters of recommendation ➡ Leading or advising a student group ➡ Co-authoring research with non-academic partners	➡ Number of modules and students taught ➡ Number hired / trained / supervised ➡ Diversity of roles created ➡ Student / beneficiary feedback ➡ Number Connections supported ➡ Career / scholarly progression ➡ Number or percentage of publications that are co-authored ➡ Co-authorship network ➡ Number of spin-out research projects and/or outputs	➡ Own data ➡ ORCID ➡ LinkedIn ➡ Course provider data ➡ Institutional websites ➡ Testimonials from beneficiaries ➡ Acknowledgment in publications ➡ Awards ➡ Scopus ➡ Dimensions
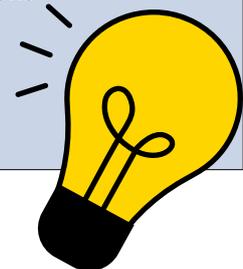
KEY ACHIEVEMENTS IN SUPPORTING THE RESEARCH COMMUNITY

The narrative in this impact area aims to demonstrate that the researcher understands strategic direction and intellectual developments within the discipline; has connections to other research areas; participates in and exercises influence on the research agenda, policies, and procedures; and inspires good research practice in the wider community which enhances the research system. The focus will be on how the researcher has helped to shape the research community and benefitted others, for example, highlighting innovations in research processes and policies, any 'firsts', and the significance of contributions to the community.

Outputs may include policies created, events hosted, awards received, and participation on panels or as a reviewer. Activities and outputs can be connected to important outcomes including:

→ contributing towards the health of academic disciplines, to innovative methodologies, and cross-disciplinary approaches;

→ contributing to the existence and strength of networks of people and organisations who understand and can make use of the research;

→ promoting a culture of responsible research and innovation.

Activities and their relevant indicators and sources may include:

SCHOLARLY ACTIVITY	EVIDENCE: REACH, USE, RELEVANCE DATA	SOURCES
→ Serving on a conference or symposium committee → Serving in an elected position within an association or scholarly society → Serving as a department / faculty Chair, Dean or other leadership role → Chairing or serving on a search / selection committee → Serving as a journal editor	→ Number and diversity of speakers and attendees at events → Different disciplines present → Networks created or enhanced → Number / quality of access to training and supports facilitated → Number / quality of internationalisation connections facilitated → Changes in open access data, instruments, and outputs → Changes in equality, diversity, and inclusion data → Diversity of participation	→ Own data → Terms of reference for the position → Annual progress reporting → Testimonials by colleagues, peers, or beneficiaries → Awards → Agreements → OpenDOAR → News articles → Organisation data

KEY ACHIEVEMENTS IN SUPPORTING BROADER SOCIETY

The narrative in this impact area aims to demonstrate the researcher's knowledge, skills, and commitment to realising the impact of their research for/with beneficiaries. The narrative will showcase how the researcher stimulates and establishes meaningful relationships beyond academia and is able to influence policy and practice with enterprise, government, and other non-academic stakeholders and settings through their research and the significance of contributions to the community.

For this impact area, we strongly encourage the use of the Campus Engage's How-To Guides: *Framework for Engaged Research*[21] and *Engaged Research Planning for Impact*[22] as these demonstrate the types of engagement and impacts that researchers bring to broader society and the economy. Potential impacts include:

➜ contributing to increasing public awareness and understanding of science, economic, and societal issues;

➜ contributing to evidence-informed policy-making;

➜ influencing public policies and legislation at a local, regional, national, and/or international level;

➜ influencing and informing practitioners and professional practice.

Activities and their relevant indicators and sources may include:

SCHOLARLY ACTIVITY	EVIDENCE: REACH, USE, RELEVANCE DATA	SOURCES
➜ Writing an article for a news media outlet ➜ Blogging or podcasting ➜ Discussing research on social media ➜ Being quoted or interviewed on radio, TV, or in print journalism ➜ Community service or community engagement projects ➜ Representing/advocating on behalf of a research area ➜ Serving on the board of a non-profit ➜ Engaged research projects	➜ Shares on media ➜ Number of citations ➜ Number of downloads, access ➜ Readers' feedback ➜ Number and quality of engagement (followers, comments) ➜ Testimonials from engaged publics ➜ Changes in practice and policy ➜ Reductions in costs or increased savings and efficiencies ➜ Achievements delivered by the Board ➜ Amount secured for societal partners ➜ Diversity of partners	➜ Own data ➜ Institutional webpage ➜ Press releases ➜ Altmetric ➜ PlumX ➜ Publisher's website ➜ Web search ➜ Google Scholar ➜ Website traffic data (e.g. Google Analytics) ➜ Social media analytics ➜ Official documents on governmental websites ➜ Overton ➜ Funder's webpage ➜ Awards

21   https://www.campusengage.ie/wp-content/uploads/2022/03/Updated-Final-PBS10553-IUA-Engaged-Research-Framework-2022_V7.pdf
22   https://www.campusengage.ie/wp-content/uploads/2022/03/Updated-Final-PBS10581-IUA-Engaged-Research-Planning-for-Impact-Framework-2022-Update_V5.pdf

Using the Framework

The RIF is designed with a practical application in mind. It aims to support researchers when they are invited to share their stories, for example, to reflect on the outcomes of their research, advance their careers, compete for research funding, or receive recognition for their scholarly achievements.

Potential Drivers for using the RIF include:

Research

➜ To understand outcomes from research.

➜ To secure funding for research.

Researcher

➜ To position myself for an opportunity.

➜ To communicate what I have achieved.

Research System

➜ To grow my research theme or team.

➜ To access infrastructure or assets.

➜ To advocate for my research area.

The RIF can be used for any such drivers for sharing impact stories. Understanding the story driver at the start of using the RIF is fundamental, as this will help define the audience for the impact story. The researcher can then identify the data (key dimensions and most appropriate evidence points) and format required to deliver an audience-specific response.

Different audiences will be interested in different perspectives of scholarly achievements and societal impacts, with their own priorities and preferred language. Knowing such preferences allows the researcher to apply the RIF in context. By mapping their impact onto the impacts that matter to that specific audience, the researcher can identify the key impact messages and the evidence that credibly corroborates the impact story.

Understanding the driver and recognising the audience for the impact narrative allows for a full characterisation of the impact story opportunity being presented. Researchers should make sure they are aware of their audiences' requirements. In some cases, using the wrong metrics can mean your application is disqualified.

The RIF is concerned with the entire process of constructing a researcher's personal impact narrative, including its contextualisation, identifying the underpinning evidence, and crafting the narrative itself. The RIF is deliberately broad and flexible to take into account the diversity of contexts and how researchers may benefit from its use.

The RIF provides the opportunity to organise and, ideally, refine the information captured to advance credible, accurate, timely and specific impact narratives that are audience-appropriate. The following example models how a researcher might articulate impact aligned with the Generation of Knowledge.

IMPACT AREA:

Generation of Knowledge

OUTCOME STATEMENT:

Informing policy by delivering a co-created open access research publication.

| SCHOLARLY ACTIVITY	EVIDENCE: REACH, USE, RELEVANCE DATA	SOURCES

Publishing research in an open access journal	➜ Referenced in news / blog articles
	➜ Number / quality of policy citations
	➜ Use in strategies, plans, service delivery, service improvement
	➜ Other reach, use, relevance data
		➜ Altmetric
		➜ SciVal / Dimensions / Overton
		➜ Own data:
		  – Emails
		  – Surveys
		  – Project website
		  – Web search

IMPACT NARRATIVE:

With a goal of **GENERATING KNOWLEDGE** in an under-researched area, I have coordinated a diverse, cross-sectoral and transdisciplinary team, resulting in a track-record that demonstrates progress in my ambition to advance **[INSERT OUTCOME STATEMENT – e.g. evidence-informed policymaking]**. This includes publishing ground-breaking research on **[INSERT TOPIC]** in **[INSERT JOURNAL NAME, YEAR]**, which has been used by policymakers. For example, my most highly-cited paper **[INSERT TITLE, YEAR]** was co-created with **[ADD SOCIETAL PARTNERS: NAME, TITLE, AGENCY]**. Findings from the publication informed **[INSERT POLICY, STRATEGY, PROGRAM, PLAN, ACTIVITY]**. This resulted in **[INSERT DATA RELEVANT TO OUTCOME]**. The use of this research to advance **[OUTCOME]** is already making a difference, including **[INSERT POLICY-RELEVANT EXAMPLE]**, as highlighted in this news media interview **[INSERT MEDIA SOURCE, YEAR] [INSERT ALTMETRIC DATA]**. The importance of this publication has been recognised by policymakers, including **[INSERT NAME, TITLE, AGENCY, LOCATION]** and has resulted in an evidence-informed policy aimed at **[INSERT DESIRED OUTCOME]** through the delivery of this open access resource.

USING THE RIF TO WRITE AUDIENCE-SPECIFIC, EVIDENCE-BASED IMPACT NARRATIVES

WHY?

Understand
the story driver

WHO?

Recognise the audience, their priorities, preferred language, and desired format

WHEN?

Identify why this impact narrative needs to be crafted now

WHAT?

Map contributions and gather evidence on the impacts that matter using the RIF

HOW?

Craft your credible evidence-based, audience-specific story

Recognising the Opportunity for Impact Narratives
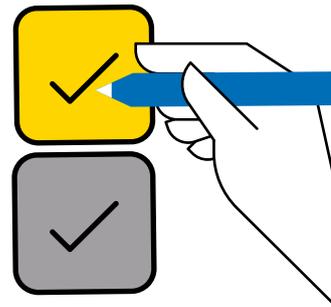
Impact story opportunities are framed by requests for information on the significance, scale, and results of contributions. These opportunities can also present themselves in open text requests for overviews, or via a selection of research outputs, or in open-ended communications about a researcher profile.

There are many cases where the word impact is not used, but an impact approach can still be beneficially applied to make a researcher's achievements and profile stand out. In such instances, make sure to describe not only what was done but also why it matters to others in your field, the wider research community, societal partners, and other key stakeholders.

EXAMPLES OF SUCH OPPORTUNITIES INCLUDE:

➜ "Please attach a supporting statement of not more than one A4 page outlining the candidate's scholarly achievements and contributions relevant to the case for this award" (2020 Royal Irish Academy Gold Medals Nomination Form).

➜ "Please describe your research achievements since beginning a career as a Researcher (including PhD and post PhD, if applicable)" in 500 words (2022 Government of Ireland Postdoctoral Fellowship Programme).

➜ "Describe the nature of your contribution, and the significance of your contribution, including examples of quality leadership" in 200 words (Trinity Academic Promotion).

Evidencing Researcher Impact Narratives

The RIF includes possible evidence types and sources for reach, use, relevance, and impact. The evidence types and sources should demonstrate that the activity has been valuable and generated benefits for the researcher, the academic community, and/or external stakeholders. The Campus Engage How-To Guide *Engaged Research Planning for Impact*[23] can help researchers to identify potential impacts for different stakeholders. A diverse approach to evidence types and sources is expected and encouraged.[24]

The evidence sources suggested in the RIF include free sources (such as WorldCat and Google Scholar), several paid tools which can be accessed freely via other platforms (such as Altmetric and PlumX), and, most importantly, what we have termed "Own Data". "Own Data" refers to evidence that researchers may receive spontaneously or actively source from their key stakeholders before, during, and after an activity.

We recognise that many uses of the RIF are connected to retrospective impact analysis (e.g. CVs and track records). Nevertheless, the collection of impact-relevant evidence can be, and ideally should be, integrated into activities and projects to streamline efforts. Researchers have different approaches to collecting this impact-related evidence along the way. Some use applications such as Evernote[25], while others create bespoke spreadsheets or print emails and surveys and save them in a folder on their computer. Some universities encourage using their institutional systems or paid impact evidence repositories such as ResearchFish.[26] The *Researcher Impact Database*[27] can be used for collecting researcher-level data over time, which might otherwise be lost. For research projects, the accompanying *Research Project Impact Database*[28] may be of interest.

23   Campus Engage. (2022). How to Guide: Engaged Research Planning for Impact: Society and Higher Education Addressing Grand Societal Challenges Together. Irish Universities Association. [pdf]. https://www.campusengage.ie/wp-content/uploads/2022/03/Updated-Final-PBS10581-IUA-Engaged-Research-Planning-for-Impact-Framework-2022-Update_V5.pdf
24   Vertigo Ventures and Digital Science. (2016). Collecting Research Impact Evidence: Best Practice Guidance for the Research Community. [pdf] https://www.vertigoventures.com/research- impact-evidence/
25   See, for, example https://www.researchtoaction.org/2015/04/impact-diaries-the-evernote-way/
26   See https://researchfish.com/
27   http://www.tara.tcd.ie/handle/2262/98475
28   http://www.tara.tcd.ie/handle/2262/98477

Crafting Evidence-Based Impact Narratives

Impact stories focus on the consequences and benefits of a scholarly activity to specified beneficiaries. Whether they relate to a researcher, a research project, or an institution, and whether they are retrospective or prospective, to whatever extent possible, the impact narrative should clearly and specifically state the **ROLE** played by the researcher or research team, **WHO** benefitted, **HOW** they benefitted, and **WHEN** that benefit occurred. All of this information should be corroborated by **EVIDENCE** and underpinned by shared **VALUES** agreed by the researcher, funder, host and partner institutions, and stakeholders. These components need to be balanced in statements that are aligned to the chosen impact area. Using the RIF allows for a quicker identification of the impacts by aligning activities, evidence, and sources that can be showcased.[29]

As a whole, the impact narrative will convey a message that something is different because of the researcher's activity or research outputs. The focus is on interrogating why it matters that these activities or outputs are in the world. We are asking, **'So what?'** in order to understand who benefitted, how they benefitted, when those benefits occurred, and the specific role played by the researcher and research. This level of information should be in accordance with the career stage of each researcher.[30]

It is important to reiterate that not all activities and not all evidence will be relevant to all audiences. Researchers should choose highlights when crafting their narratives and include only relevant information. Entire career histories or exhaustive lists of activities are rarely required. The concision of an impact narrative reveals the thoughtfulness about the data included and why.

29   The idea for structuring and colour coding impact narratives was inspired by and adapted from *The Prickly Impact Statement* by Dr Wade Kelly, accessible at https://researchwhisperer.org/2021/06/01/the-prickly- impact-statement/
30   See *Research profiles descriptors* at https://euraxess.ec.europa.eu/europe/career-development/training- researchers/research-profiles-descriptors.

KEY TERMS IN RIF

1. **BENEFICIARIES**: those who benefit from or are positively affected by the scholarly activity and its outputs.

2. **REACH:** the extent, spread, breadth, and/or diversity of the beneficiaries of the scholarly activity and/or its impact.

3. **USE:** the adoption of scholarly outputs in further activities by beneficiaries.

4. **RELEVANCE:** the importance or significance of the activity from the reach and use of outputs by beneficiaries, including any outcomes for beneficiaries.

5. **OUTCOME:** the short-term changes or contributions resulting from scholarly activities.

6. **IMPACT:** the longer-term changes, benefits, or values of the activity or outcome for beneficiaries and the consequences of the outcomes.

The RIF is intended to be used for inspiration and guidance. Those using it to craft their CVs, track records, and other types of researcher impact narratives should be aware that it is designed as an example only. We strongly discourage a copy-and-paste approach. Researchers using the RIF should know and adopt the language and strategic evidence points of their intended audiences. Different actors in the research system define their own terminologies and evidence points.

The RIF provides more than a researcher would need in any given situation. There is no need to use everything that is suggested in it. In other words:

"*everybody should not do everything.*"[31]

The presented example and the tables connecting activities, related outcomes, and potential evidence are illustrative starting points. We hope the community will build upon these potential areas of development.

Impact narratives must be authentic to the researcher and focused on what is valuable to both the researcher and their audience. It is a values-based approach based on a personal reflection on a researcher's impact and should help contextualise achievements, including for those with non-linear career journeys.

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31   Universities Norway. NOR-CAM - A toolbox for recognition and rewards in academic careers. 2021. https://www.uhr.no/en/news-from-uhr/nor-cam-a-toolbox-for-recognition-and-rewards-in-academic-careers.5780.aspx

A Values-Enacted Approach

The RIF takes a values-enacted approach to transforming the culture of higher education. It is inspired by and applies the Values Framework proposed by *HuMetricsHSS*, listed below. *HuMetricsHSS* is an initiative to create and support frameworks for understanding and evaluating all aspects of the "well-lived scholarly life" by promoting and nurturing values in scholarly practice.[32]

→ **EQUITY**, or the willingness to undertake study with social justice, equitable access to research, inclusivity, and the public good in mind;

→ **OPENNESS**, which includes a researcher's transparency, candour, and accountability, in addition to the practice of learning from failure and working and publishing in the open when possible;

→ **COLLEGIALITY**, which can be described as the professional practices of kindness, generosity, ethical imagination, empathy, and respect toward other scholars and oneself;

→ **SOUNDNESS**, a value that demonstrates a researcher's originality, creativity and integrity, willingness to push boundaries, methodological soundness, and the advancement of knowledge within the researcher's discipline, among other disciplines, and with the general public;

→ **COMMUNITY**, the value of being engaged in one's community of practice and with the public at large, being attuned and connected to relationships and networks, and in practicing principled leadership.

More information can be found on their webpage: https://humetricshss.org/.

The RIF includes potential evidence points to help researchers to showcase the values that shape their scholarship and give their scholarly work purpose.

> "Aligning academic recognition and reward with such a values framework has a powerful transformative effect. It allows for the acknowledgment of the vital and often undervalued processes and people that enrich scholarship and scholarly life, and it can nudge institutions toward the fulfillment of the promise of their mission statements or strategic plans in more than name alone."
>
> **AGATE ET AL., 2020**[33]

32   Universities Norway. NOR-CAM - A toolbox for recognition and rewards in academic careers. 2021. https://www.uhr.no/en/news-from-uhr/nor-cam-a-toolbox-for-recognition-and-rewards-in-academic-careers.5780.aspx
33   Agate, N., Kennison, R., Konkiel, S. et al. (2020). The transformative power of values-enacted scholarship. Humanit Soc Sci Commun 7, 165. https://doi.org/10.1057/s41599-020-00647-z

Reflective Questions when using the Framework

1 — Are you capturing evidence of the reach, use, and relevance of your scholarly activities

2 — Have you reflected on what research outcomes and impacts matter to you, others in your field, the wider research community, your societal partners, and other key stakeholders

3 — Do you share values with key stakeholders that are being advanced by your scholarly activities

4 — Are you aware of how others benefit from your scholarly activities

5 — Do you have opportunities to engage with the beneficiaries of your research

6 — Can you identify how you and others in your field understand and value the activities you do

7 — Have you contemplated how to assess and report on the outcomes and impacts of your scholarly activities

8 — Have you identified impact narrative opportunities? If so, do you understand how to write audience-specific, evidence-based impact narratives that clearly capture who benefitted, how they benefitted, and the role you played in delivering these benefits

9 — Are your public profiles current and accurate

10 — Do you celebrate a broad range of scholarly activities and their outcomes in your public profiles

11 — Are you confident in your ability to find the support you need to communicate your impact adequately, appropriately, and responsibly

12 — Are the data points you are using relevant and compliant with the requirements of your audience

13 — Have you considered how communicating your impact now may provide better positioning for the next time you pursue a relevant opportunity

Do's and Dont's for Researchers

→ **Do** reflect on your personal journey and make the impact narrative authentic to your experiences.

→ **Do** know your audience's language and preferred evidence types and metrics.

→ **Do** use multiple metrics. Quantitative metrics, including citation analysis, are just some of the many indicators you can use.

→ **Do** share your impact narrative with others who can provide critical feedback on whether your claims are well-substantiated with reasonable evidence.

→ **Don't** compare metrics between disciplines as most only make sense within disciplines.

→ **Don't** feel shy about reaching out to colleagues, partners, and beneficiaries to get their feedback and any additional information that could help you tell your story.

REMEMBER!
No stories without data, no data without stories!
Contextualise and illustrate as often and clearly as possible.

A Final Note from the Authors

GIOVANNA

SARAH

Our starting point for building the RIF was a recognition that the "impact agenda" needs to be authentic and reflect the researcher's ambitions and desires.

We were inspired by the Research Impact Challenge created by Rebecca Welzenbach in the University of Michigan Library. In one of her insightful worksheets, she asks, "What I do, what's important to me, & what 'counts'".

In her words:

> **"**The goal of this exercise is to arrive at a clear, current, and comprehensive awareness of your scholarly labor, as well as your own assumptions about what work is important...**"**[34]

Welzenbach also asks researchers how they would express, capture, and communicate the impact of their work.

The RIF helps researchers build an answer to these questions and more. Welzenbach provided us with the first building block, the Scholarly Activities, and highlighted the need for Evidence and Sources. We then sought to elaborate and map the remaining blocks. Our understanding of how to connect the blocks was informed, in part, by *The Prickly Impact Statement* by Dr Wade Kelly.[35] The main contribution of the RIF is to contextualise scholarly activities by connecting them to their societal value which so often goes uncommunicated or unsubstantiated.

It is essential to note that we believe research impact is serendipitous and a result of a healthy and dynamic research system. It is not a researcher's sole responsibility, nor should it be demanded or expected of a researcher alone. We subscribe to an idea of research impact as an ethos.

> **"**This is an approach to research impact that does not externalise 'the real world' but sees academia as part of it and researchers as partners within dynamic innovation ecosystems, willing and able to use their unique capabilities to help generate the positive transformational changes needed.**"**[36]

34   Welzenbach, R. (2020). Research Impact Challenge. University of Michigan Library. https://guides.lib.umich.edu/research-impact-challenge
35   https://researchwhisperer.org/2021/06/01/the-prickly- impact-statement/
36   Rickards, L., Steele, W., Kokshagina, O., & Morales, O. (2020). Research Impact as Ethos. RMIT University. https://doi.org/10.25439/RMT.12787244

More Information ➜➜ ➜

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Appendices

RESEARCH ASSESSMENT

Successive waves of scholarship and advocacy over the past decade have questioned methodologies, systems, and cultures of research and research assessment. The main initiatives influencing the changing landscape in research assessment that researchers should be aware of include:

2012
San Francisco Declaration on Research Assessment (DORA)

2015
Leiden Manifesto for Research Metrics

2015
The Metric Tide Report

2016
HuMetricsHSS

2019
INORMS SCOPE research evaluation framework

2019
NSNU's Room for Everyone's Talents position paper

2020
The Hong Kong Principles for assessing researchers

2020
Wellcome Trust guidance to help funded organisations to develop new policies and practices

2021
EU Towards a reform of the research assessment system

2022
LERU's A pathway towards Multidimensional Academic Careers

The emerging responsible research assessment (RRA) is now shifting from describing problems towards designing and implementing solutions (Curry et al., 2020). There are five identified global values of RRA (UK Research and Innovation, 2021):

➡ **ASSESSMENT SHAPES CULTURE:** Research assessment and what the community values influence how research is performed.

➡ **DIVERSITY CREATES EXCELLENCE**: The definition of research excellence needs to be broad and encompass perspectives and experiences from people of all backgrounds.

➡ **FOSTERING A HEALTHY SYSTEM:** Funders should employ clear criteria, relevant indicators, and regular self-evaluation.

➡ **RESEARCH IS GLOBAL:** Funders' assessment approaches must be mindful of local context, culture, language and unintended consequences which can impact other countries.

➡ **STAKEHOLDERS ARE VITAL IN ENACTING CHANGE:** All stakeholders should collaborate to develop and evaluate RRA and resist shifting onus to other parties.

Additionally, there are "heightened expectations and emphases on strategic, challenge or mission-oriented research; open scholarship and data; ethics, integrity and reproducibility; interdisciplinarity, collaboration and team science; and the need for greater diversity and inclusion."[37] The RIF is in dialogue with these initiatives and practically suggests ways researchers can respond to new requirements.

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37   Curry, S., de Rijcke, S., Hatch, A., Pillay, D., van der Weijden, I. and Wilsdon, J. (2020) The changing role of funders in responsible research assessment: progress, obstacles & the way ahead. RoRI Working Paper No. 3., November 2020. https://doi.org/10.6084//m9.figshare.13227914

Contextual or Narrative-based CVs

The RIF adopts the four main pillars of the Royal Society's Résumé for Researchers (R4R) to group relevant societal outcomes and their associated scholarly activities. The R4R is a narrative-based document that is focused on four key questions:

> **"***How have you contributed to the generation of knowledge?***
> ***How have you contributed to the development of individuals?***
> ***How have you contributed to the wider research community?***
> ***And how have you contributed to broader society?***"**[38]

The R4R is part of recent developments in research assessment, promoting the use of contextual or narrative-based CVs. This new CV format provides a structured, qualitative description of a researcher's contributions and achievements that reflect a broad range of relevant skills and experiences. The format is being piloted and adopted by national research funders. The Dutch Research Council, Health Research Board Ireland, Luxembourg National Research Fund, the National Institutes of Health in the United States, Science Foundation Ireland, the Swiss National Science Foundation, and UK Research and Innovation are among the first funding organizations to pilot or implement narrative CV formats.[39] Each adopting organisation is developing its own version of what a contextual or narrative CV model looks like, adapting the format to their specific needs and contexts.

In the RIF, the adoption of the four-module structure is intended to help the researcher frame and contextualise the contribution of scholarly activities. It may be the case that a researcher faces a different frame or structure, especially as there is still no shared definition of what a narrative CV is or a list of objectives for what it hopes to achieve.[40] Researchers are encouraged to use the relevant inspiration and illustrative points in the RIF to their benefit and utilise the RIF building blocks as needed to craft their academic CVs or personal statements to support applications for jobs, funding, promotions, and awards.

38   Woolston, C. (2022). Time to rethink the scientific CV. In Nature (Vol. 604, Issue 7904, pp. 203–205). Springer Science and Business Media LLC. https://doi.org/10.1038/d41586-022-00928-4
39   Fritch, R., Hatch, A., Hazlett, H., & Vinkenburg, C. (2021). Using Narrative CVs: Process Optimization and bias mitigation. Zenodo. https://doi.org/10.5281/zenodo.5799414
40   Fritch, R., Hatch, A., Hazlett, H., & Vinkenburg, C. (2021). Using Narrative CVs: Process Optimization and bias mitigation. Zenodo. https://doi.org/10.5281/zenodo.5799414

Impact Frameworks

The RIF joins a suite of other impact frameworks that have been developed by research performing organisations, funding agencies, and national research impact assessments around the world. The existing frameworks are concerned with assessing research impact for different institutional purposes and have different units of analysis (e.g., research projects, discipline, or School level). Reed et al.[41] summarises methodologies used in the evaluation of research impact, which is what many frameworks are hoping to achieve.

The RIF has been developed to help researchers explore and express the impact of their research for multiple audiences, not evaluate it. Our definitions and applications are broader and discipline agnostic to allow for the different impact contexts researchers may find themselves in. The scope of the RIF presents some challenges.

The main challenge is ontological. Some impact frameworks do not value processes leading to impact, only its outcomes. In these approaches, for example, "reach is not impact" as reach is only a pathway to impact, i.e. a way for the change to happen, but not the change itself. When faced with those frameworks, researchers can focus on the Use and Relevance of their achievements, with less emphasis given to Reach. Researchers interested in Reach can benefit from the literature on "productive interactions" (e.g., Benneworth, P. et al., 2022; Díaz Mariño et al., 2021; Spaapen & Drooge, 2011).

Another important challenge is definitional. The concepts and language we suggest are built upon multiple sources and do not adhere to one single framework. The RIF language maybe be different to that used by other frameworks with which a researcher is accustomed. The RIF may also include evidence points not allowed by other frameworks. That is expected. Flexibility, adaptability, and audience awareness are essential when using the RIF.

Other frameworks, even if not directly related to a researcher, may provide useful examples of how to frame or evidence an impact narrative, including the UK's Research Excellence Framework (REF) database (the system for assessing the quality of research in UK higher education institutions by the government). Researchers can, for example, search REF Impact Case Studies using keywords or get inspiration on how researchers in their areas have articulated impact at https://results2021.ref.ac.uk/impact.

41   Reed, M. S., Ferré, M., Martin-Ortega, J., Blanche, R., Lawford-Rolfe, R., Dallimer, M., & Holden, J. (2021). Evaluating impact from research: A methodological framework. In Research Policy (Vol. 50, Issue 4, p. 104147). Elsevier BV. https://doi.org/10.1016/j.respol.2020.104147

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"*The RIF is designed with a practical application in mind. It aims to support researchers who are increasingly invited to share their stories, for example, to reflect on the outcomes of their research, advance their careers, secure research funding, or receive recognition for their scholarly achievements.***"**

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