

Science Funding Frameworks (Room 1.34)

Speakers:

Marta Wróblewska (Chair)

Marco Malgarini

Steven Hill

Science Funding Frameworks

Marta Wróblewska (Chair)

Assistant Professor, SWPS University, Poland

Science funding frameworks

Societal Impact of Social Sciences,
Humanities & Arts, 2023
AESIS
Cardiff University

Marta Natalia Wróblewska PhD SWPS University Warsaw, Poland

17.10.2023

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Agenda

Marta Wróblewska (*Chair*) Assistant Professor, SWPS University,
Poland (*Chair*):
Research Impact Assessment – a (short) international review

Marco Malgarini Director of Evaluation of University Research,
ANVUR, Italy : *Impact evaluation in Italy*

Steven Hill Executive Chair & Director of Research, Research
England, United Kingdom : *Funding frameworks to support impact:
the case of England*

Research Impact

Assessment –

a (short)

international review

Research Impact Assessment – a (short) history

Evaluators have taken an interest in “research impact” (i.e. the degree to which research results are implemented and used in contexts beyond academia) since the 90’s (e.g. Payback framework for health research in the UK)

Three main approaches to research impact evaluation:

technometrics

sociometrics

case studies

(Donovan, 2008)

Research Impact Assessment – a (short) review

Three main approaches to research impact evaluation:

technometrics

quantitative approach: focus on investment from industry, commercialisation, patents (indicators) etc.

shortcoming of this approach: narrow understanding of “impact”.

sociometrics

mapping research outcomes onto existing social statistics

shortcoming of this approach: link between research and impact is weak.

case studies

qualitative approach, peer or expert-review

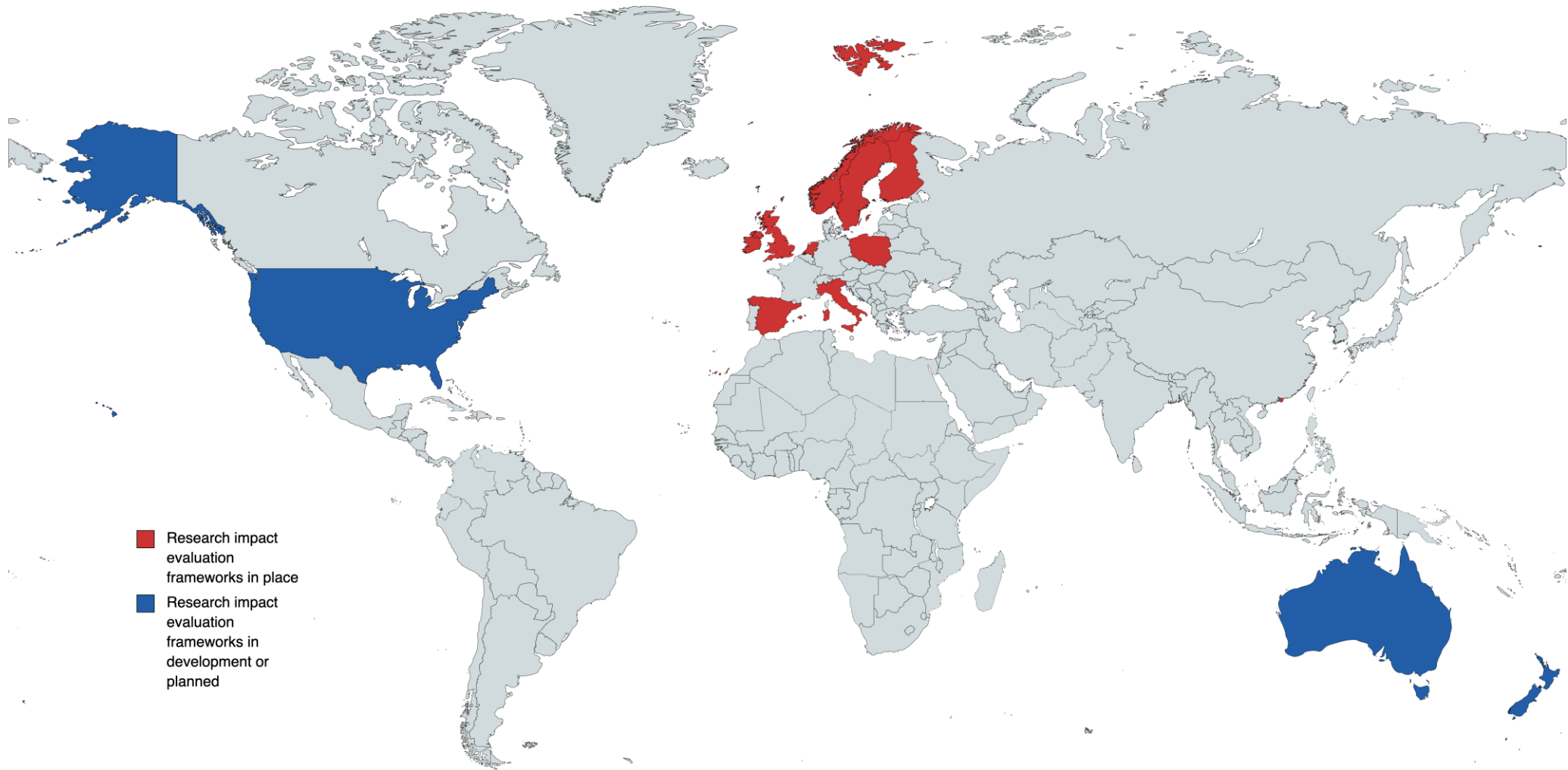
broad understanding of impact in its different dimensions.

shortcoming of this approach: time-consuming, expensive, and to a degree “subjective”

The 2008 Australian Research Quality Framework (RQF) – the first national research assessment exercise to include a comprehensive and methodologically diverse impact audit, based on case studies.

(Donovan, 2008)

"Map of research impact evaluation"



- Research impact evaluation frameworks in place
- Research impact evaluation frameworks in development or planned

Created with mapchart.net

In the EU Horizon Europe applications have an impact field

Based on (Reed et al., 2021)

REF taken as 'model' and copied in national evaluations worldwide

Sweden: Research Council
Strategic Research Centres
submit impact case studies since
2019

Norway: Humeval (Evaluation of the humanities) 2015-
2017

Poland: Evaluation of Quality of
Scientific Activity) – 2017-2021

UK: Research Excellence
Framework (REF)
2014, 2021

Other countries with REF - styled evaluations:

- Hong-Kong
- Australia (?)

Also Horizon Europe applications have an impact field

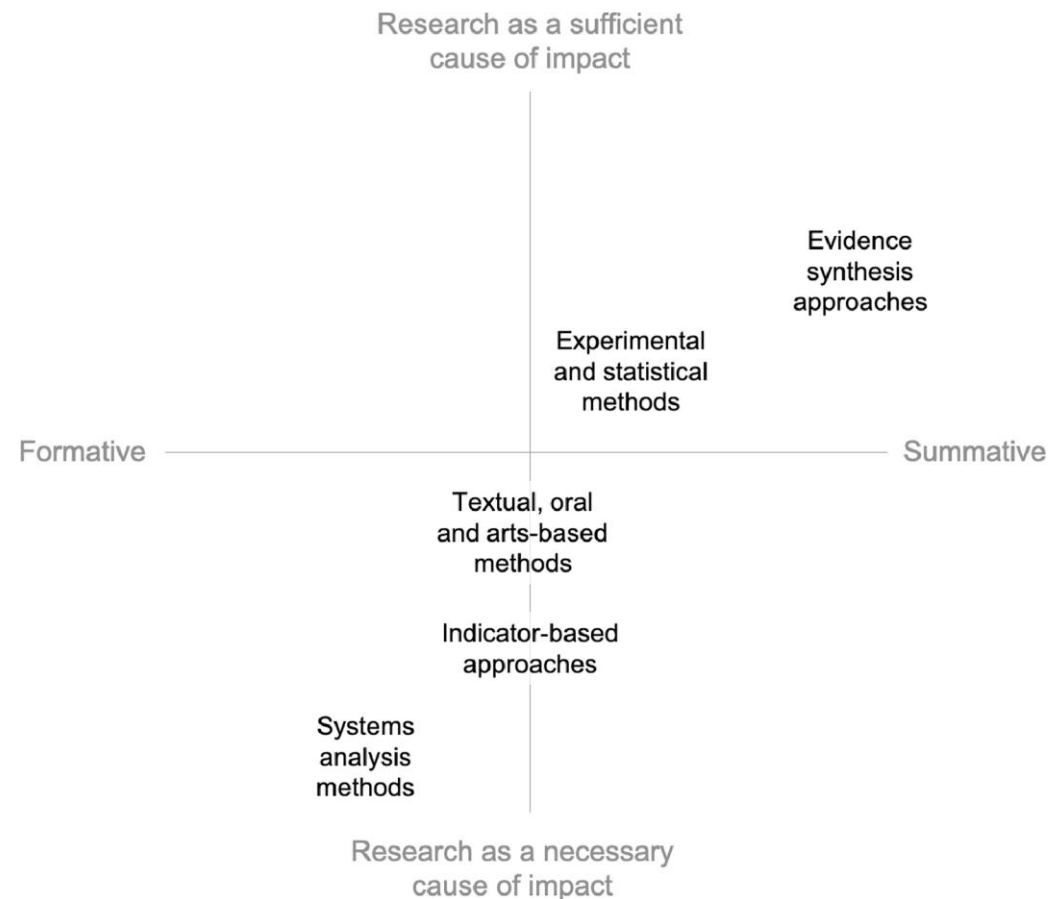


UK	Norway	Poland
Definition of impact*		
Criteria: 'reach and significance'**		
Basis for assessment: impact case studies (CSs)		
Similar case study template		
CSs submitted by Unit of Assessment (~discipline within university)		
Assessment conducted by disciplinary panels (expert review)		
Impact on academic teaching excluded		
Broad range of evidence for impact allowed		
International experts amongst evaluators		
Weighting: 20-25% in REF / 20 % in Poland		
Language of case studies – English		

Evaluation designs can be divided into ones with:

a **summative** focus on achieving, evidencing and claiming impacts and being accountable.

formative focus on ongoing monitoring, learning, adaptation and taking epistemic responsibility for the generation of impact



Bibliography

- Donovan, C. (2008). The Australian Research Quality Framework: A live experiment in capturing the social, economic, environmental, and cultural returns of publicly funded research. *New Directions for Evaluation (Special Issue: Reforming the Evaluation of Research)*, 118, 47–60. <https://doi.org/10.1002/ev.260>
- 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. *Research Policy*, 50(4), 104147. <https://doi.org/10.1016/j.respol.2020.104147>
- Wróblewska, M. N. (2019). Impact evaluation in Norway and in the UK – a comparative study based on REF 2014 and Humeval 2015-2017. ENRESSH Working Paper Series, <https://research.utwente.nl/en/publications/impact-evaluation-in-norway-and-in-the-uk-a-comparative-study-bas>
- Wróblewska, M. N. (2021), "Research impact evaluation and academic discourse". *Humanities and Social Sciences Communications*, 2021, 8 (58). 2021, doi: 10.1057/s41599-021-00727-8

Notes from Q&A and discussion

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Science Funding Frameworks

Marco Malgarini

Director of Evaluation of University Research,

ANVUR, Italy

Agenzia Nazionale di Valutazione del
sistema Universitario e della Ricerca



National Agency for the Evaluation of
Universities and Research Institutes

Impact evaluation in Italy

Marco Malgarini

Senior Manager for Research Evaluation, ANVUR, Italy

Science funding frameworks Session

Societal Impact of Social Sciences, Humanities & Arts, 2023

AESIS – Cardiff, October 18 - 20, 2023

Presidential Decree d.P.R. no. 76/2010 “Regulation concerning structure and functioning of the National Agency for the Evaluation of Universities and Research Institutes”.

Art. 3.

Attività, criteri e metodi

1. L’Agenzia svolge le seguenti attività:

a) valuta la qualità dei processi, i risultati e i prodotti delle attività di gestione, formazione, ricerca, ivi compreso il trasferimento tecnologico delle università e degli enti di ricerca, anche con riferimento alle singole strutture dei predetti enti; le predette valutazioni si concludono entro un periodo di 5 anni;

b) definisce criteri e metodologie per la valutazione,

Evaluating procedures, results and outputs of institutions’ management, teaching, research and technological transfer activities

RESEARCH EVALUATION

- Evaluation of research activities and their impact is one of the main ANVUR activities
- ANVUR main responsibilities in this field are:
 - Periodical ex post evaluation of research activities and their economic and social impact of Universities and Public Research Organizations (VQR)
 - Accreditation and evaluation of PhD programs
 - Activities supporting the National Scientific Habilitation procedures, including:
 - Evaluation of national commissions
 - Maintenance of a list of Scientific journals

EVALUATION OF RESEARCH QUALITY (VQR)

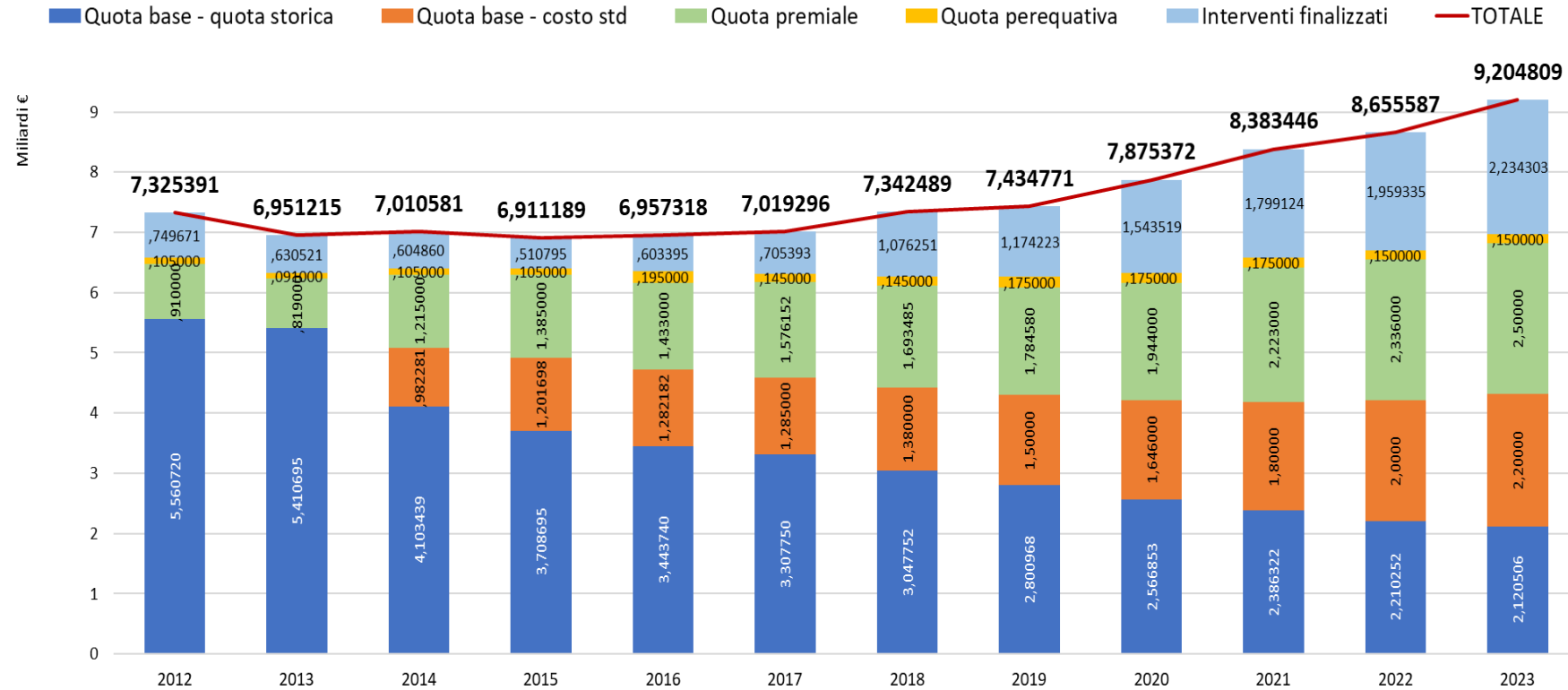
- The VQR is aimed at **evaluating the results of the scientific research** of Italian Institutions and related internal divisions (Departments and similar units), also taking into account the scientific area.
- The exercise is also aimed at **evaluating the impact of so-called Third Mission activities** carried out by the Italian Institutions and their internal divisions.
- VQR results are used by the Ministry of Universities and Research for allocating the performance-based share (the *Quota premiale*) of the main university funding.
- Three evaluation exercises have been conducted so far.
 - the first in 2011-2013, the VQR 2004-2010
 - the second in 2015-2017, the VQR 2011-2014
 - the third in 2019-2022, the VQR 2015-2019
- The fourth exercise, referred to the period 2020-2024, has been launched this August and will take place in the period 2024-2026
- In the first two exercises VQR, the evaluation of TM was introduced experimentally, while starting from the third round it is also used in the funding allocation formula

THE FUNDING ALLOCATION FORMULA

- More specifically, according to the funding allocation, the premium share of total funding is attributed as follows:

Dimension	Description	Weight
Research Quality	<p>VQR 2015 – 2019 results for each University:</p> <p>IRFS = (90% IRAS1e2 + 5% IRAS3 + 5% IRAS4)</p> <p>where:</p> <ul style="list-style-type: none"> • IRAS 1e2 = VQR results for all researchers. • IRAS 3 = VQR results for researchers having obtained a Phd in the period • IRAS 4 = VQR results relative to impact. 	60%
Recruitment	VQR results for researchers having been recruited or promoted in the period 2015-19.	20%
Other indicators	Broaden access to university training; Promote research at global level and enhance the contribution to the competitiveness of the country, driving the digital and ecological transition; Innovating student services to reduce inequalities; Being players in an international dimension; Investing in the future of young researchers and university staff	20%
Total		100%

THE PREMIUM SHARE OF UNIVERSITY FUNDING



VQR 2015-2019: AN OVERVIEW

- **134 Institutions** assessed:
 - 98 Universities;
 - 14 Public Research Institutes (supervised by the Ministry);
 - 22 Other Institutions performing research activities (participating in the VQR on a voluntary basis).
- **65.119 researchers** involved.
- **182.648 research outputs**
- **676 Third Mission case studies**
- **17 Disciplinary Panels** and **1 Third Mission Panel** in charge of evaluation:
 - 615 experts for the research products;
 - 30 experts for the case studies.
- **11.299 external peer reviewers** were used in the evaluation.

THE EVALUATION OF THIRD MISSION ACTIVITIES IN THE FIRST THREE VQR

VQR 2004-2010	VQR 2011-2014	VQR 2015-2019
1	2	3
<ul style="list-style-type: none"> - Broad definition of third mission (patents, spin-offs, museums, public involvement activities, etc.) - Use of a set of indicators based on counting (number of spin-off companies,...), with data from internal monitoring systems of institutions (no central data collection system) <p>→ Need for more reliable data and refinement of definition</p> <p>→ Results are not used for funding purposes</p>	<ul style="list-style-type: none"> - Construction of a central data collection system (SUA-RD, Third Mission) for comparability and standardization; output and outcome indicators (revenues and employees of spin-off companies, ...) - Development of an informed peer review model (publication of the Evaluation Manual): data + expert judgement <p>→ Difficulty in adjusting between data and indicators and taking into account context</p> <p>→ Results are not used for funding purposes</p>	<ul style="list-style-type: none"> - Like in VQR1-2, the broad definition of TM is confirmed and the Guidelines for the compilation of SUA-TM (ANVUR 2018) are recalled. - The evaluation methodology changes: instead of activities, evaluation concerns a selection of case studies chosen by the evaluated institutions, with the goal of single out institutional and territorial specificities and enhance best practices <p>→ Case studies are classified according to fields of action</p> <p>→ A specific group of Evaluation experts is in charge of the evaluation</p> <p>→ Results are used to distribute 5% of total funding</p>



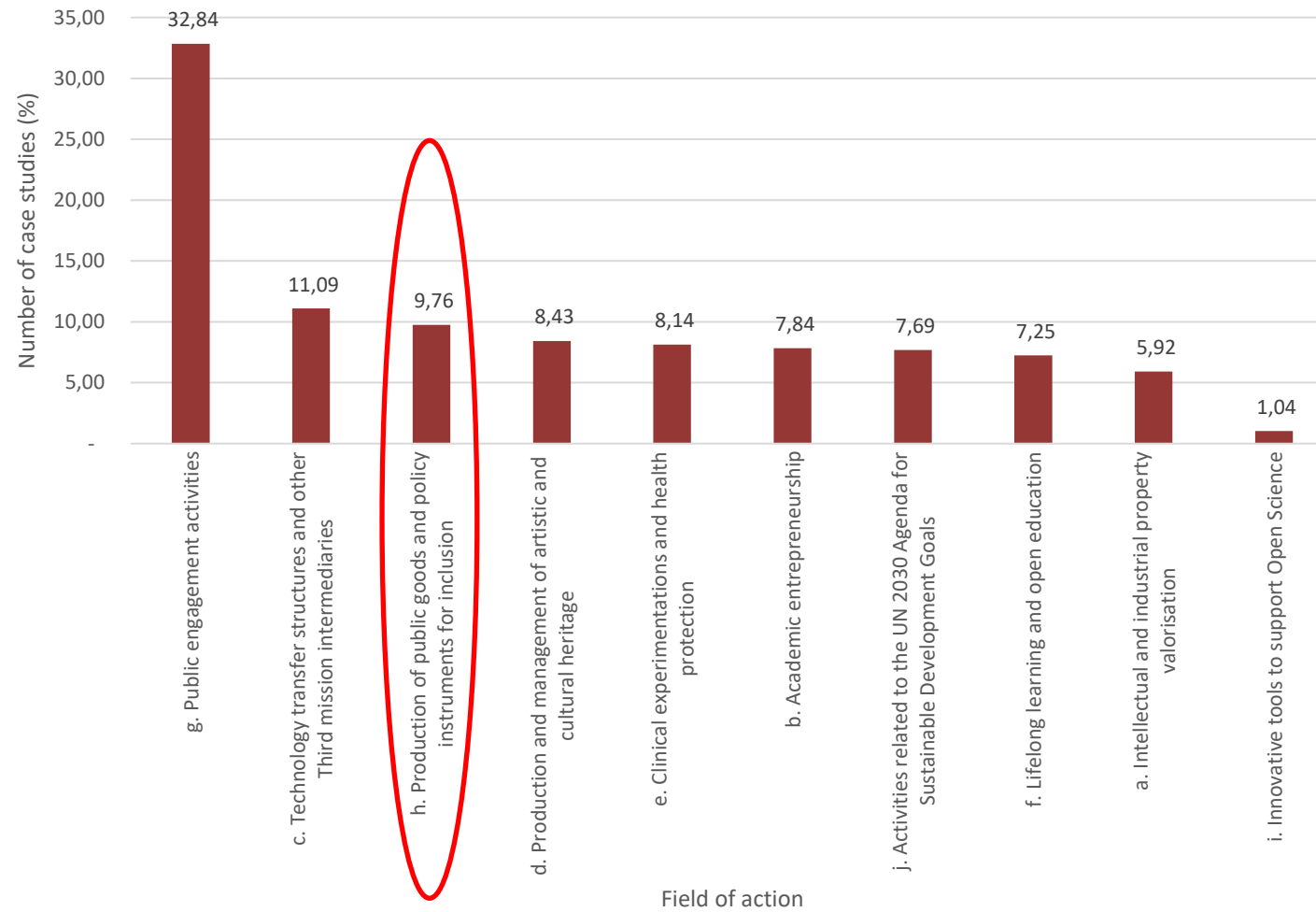
2011

2022

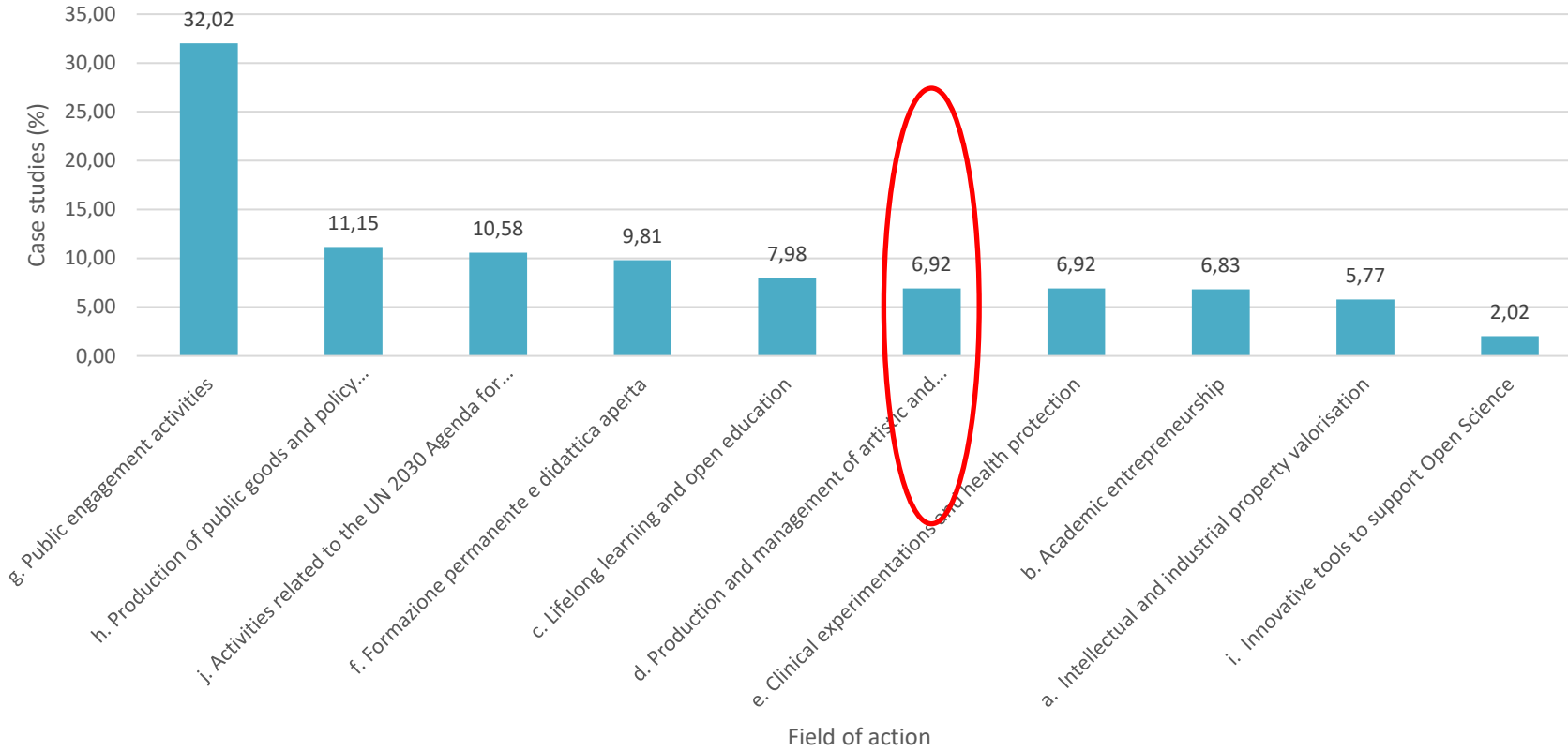
SUBMITTED CASE STUDIES IN VQR 2015-2019

Institutions	Number	Case studies	Percentage
Universities	98	460	68,05
EPR	14	159	23,52
Voluntary	22	57	8,43
TOTAL	134	676	100,00

FIELD OF ACTION - MAIN (N. 676)



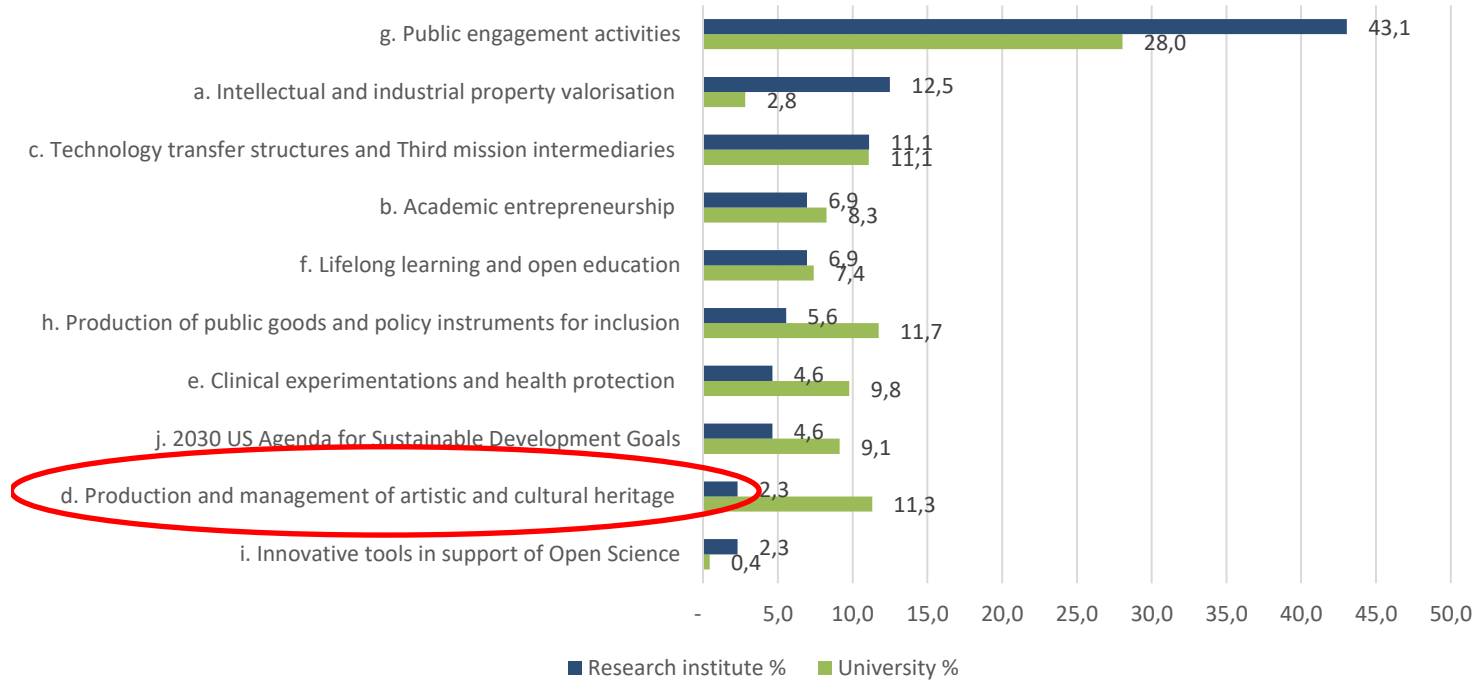
FIELDS OF ACTION – ALL (N. 1040)



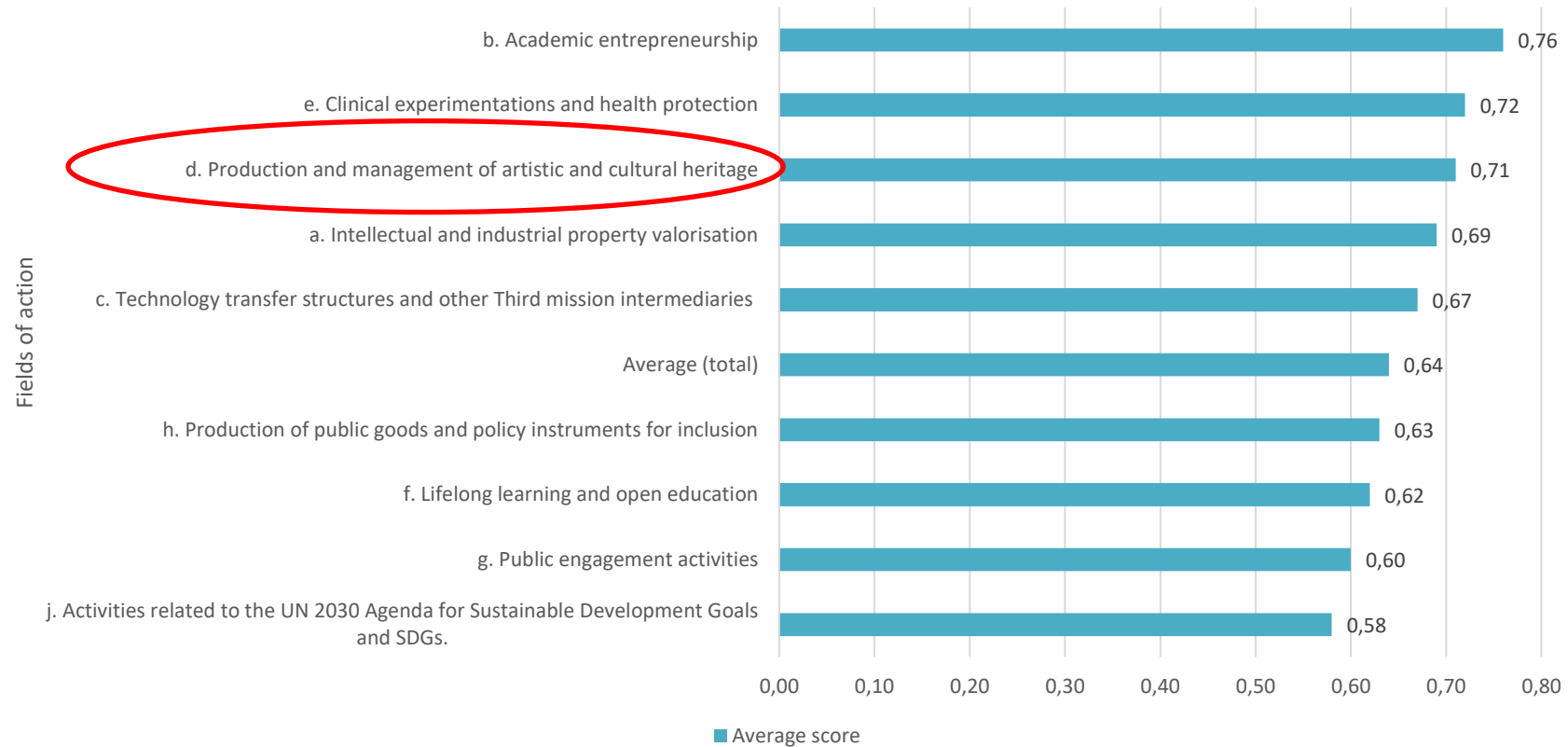
DISCIPLINARY AREA



FIELDS OF ACTION BY INSTITUTION



EVALUATION OF THE FIELDS OF ACTION: AVERAGE SCORE



Vqr 2020-2024 - Preliminary version of the Call (still under discussion, the final version will be published on October 31)

Consolidation of the methodological approach:

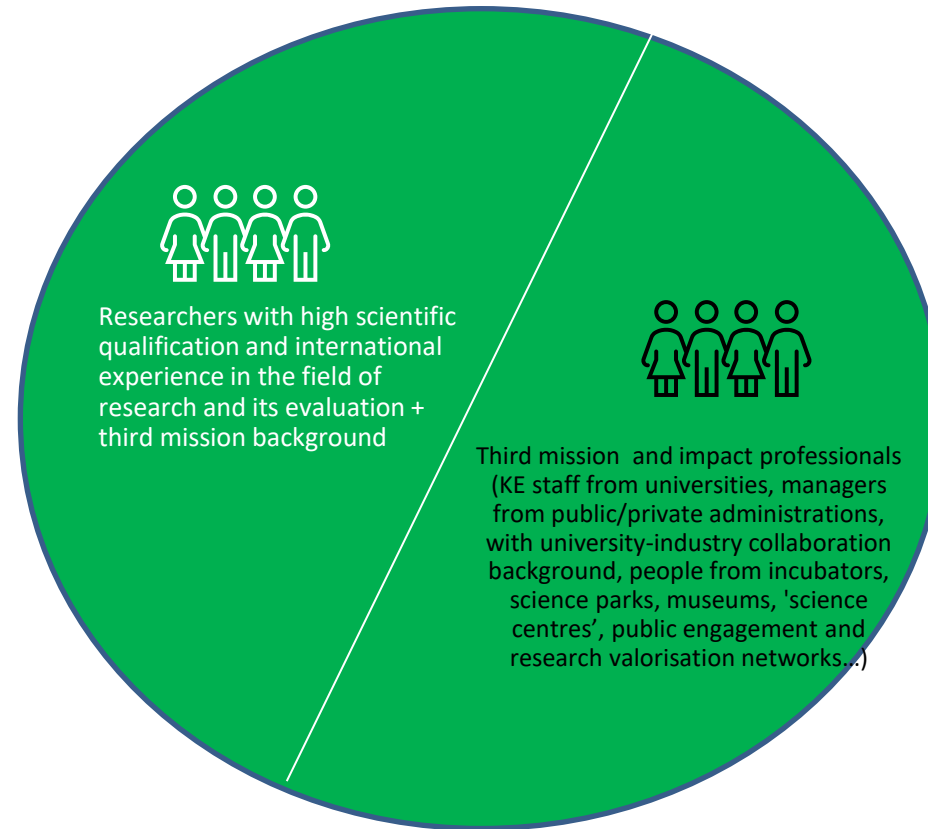
- Evaluation methodology based on peer evaluation of case studies is unchanged.
- An ad hoc panel will still be used to evaluate case studies
- Results will again be used to distribute funding

Main novelties:

- New broad definition of TM as Knowledge enhancement.
- Number of case studies will be proportional to number of researchers; their number will increase till a maximum number of 1,000
- Case studies will be classified into five thematic areas, each including five fields of action

INTERDISCIPLINARY EVALUATION PANEL

- Interdisciplinary panel composed by 30 experts:



THIRD MISSION AND IMPACT CASE STUDIES

Knowledge enhancement: the process by which economic and social value is created from knowledge, linking different areas and sectors and transforming data, technical expertise and research results into knowledge-based products, services, solutions and policies that benefit society.

Each evaluated institution submits a selected set of Third mission case studies. The number of required case studies has been established in the VQR Call and is proportional to the number of researchers of each institution

Case studies are related to impact achieved in the period 2020-2024 with regards to one or more thematic area and field of action

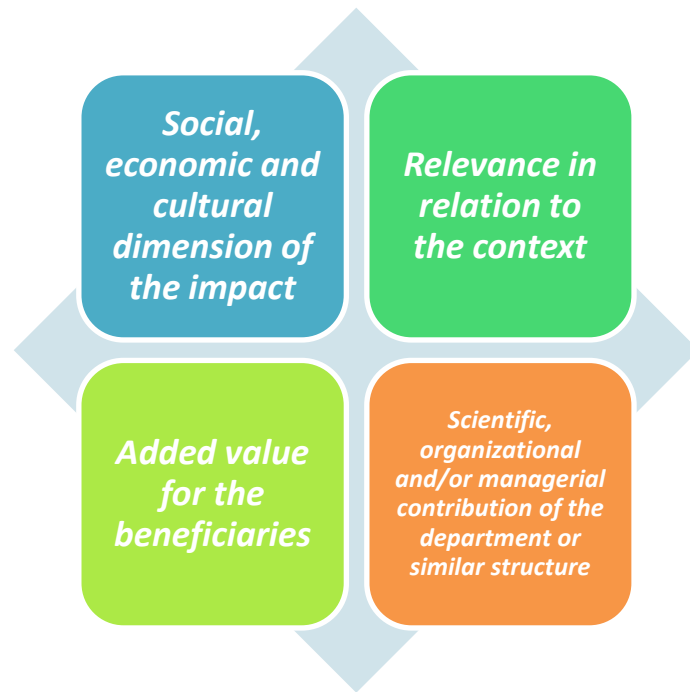
Case studies usually refer to Departments or similar structures (max 2 per Department) or to the whole Institution

Case studies with an impact outside the period of evaluation are not considered admissible

THEMATIC AREA & FIELDS OF ACTION

Technology transfer and research exploitation	Production, management and exploitation of public goods and Social Impact	Public engagement and knowledge exploitation	Life and health sciences	Environmental sustainability, inclusion and combating inequality
<i>Intellectual and industrial property valorisation</i>	<i>Production, management and exploitation of artistic and cultural heritage</i>	<i>Organization of activities-events</i>	<i>Clinical experimentations</i>	<i>Fighting poverty, inclusion and social cohesion</i>
<i>Academic entrepreneurship</i>	<i>Lifelong learning and open education</i>	<i>Scientific dissemination</i>	<i>Public health prevention, promotion and protection initiatives</i>	<i>Ecological and energy transition</i>
<i>Technology transfer structures and other TM intermediaries</i>	<i>Production of public goods and policy instruments for inclusion</i>	<i>Multimedia dissemination</i>	<i>Activities in health care and research in favor of fragile groups</i>	<i>Environmental and climate sustainability</i>
<i>Cross-innovation and cross-fertilization initiatives</i>	<i>Territorial, infrastructural and urban development</i>	<i>Initiatives to engage citizens in research and/or innovation</i>	<i>International health cooperation activities</i>	<i>International cooperation for sustainable development and social cohesion</i>
<i>Research and training to promote the culture of innovation</i>	<i>Actions for the development of Open Science</i>	<i>School-based engagement and interaction activities</i>	<i>Environmental health and food safety</i>	<i>Disclosure, promotion and dissemination of the culture of sustainability</i>

CRITERIA & RATINGS

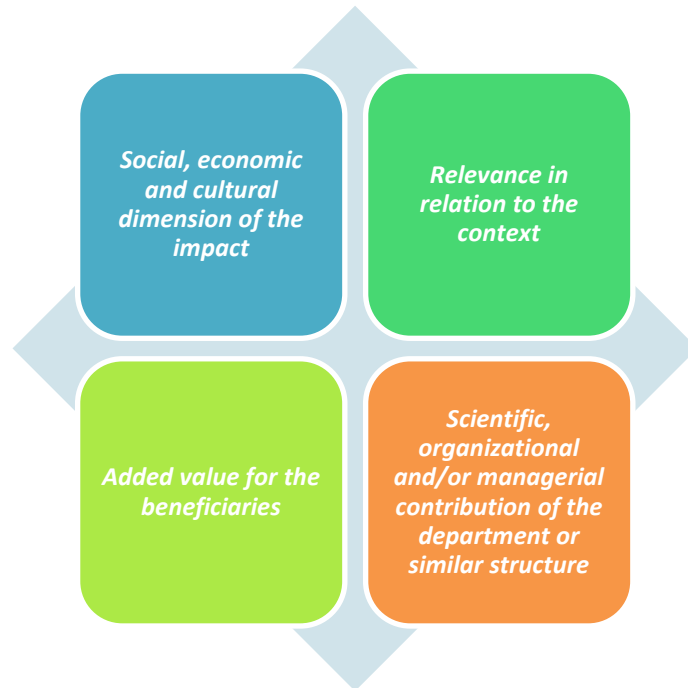


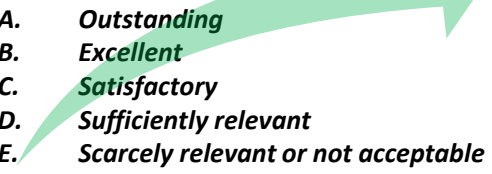
The **relation with research results** is not taken for granted and involved in the evaluation only if relevant for the type of initiative and impact



The GEV TM will qualify each criteria >
Document on the evaluation panel criteria (to be released by July 31, 2024)

CRITERIA & RATINGS



- A. ***Outstanding***
 - B. ***Excellent***
 - C. ***Satisfactory***
 - D. ***Sufficiently relevant***
 - E. ***Scarcely relevant or not acceptable***
- 

THANKS FOR YOUR ATTENTION

Science Funding Frameworks

Steven Hill

*Executive Chair & Director of
Research, Research England, United
Kingdom*



Research
England

Funding frameworks to support impact: the case of England

Steven Hill

Director of Research, Research England

AESIS

19 October 2023

Summary

- Assessment of impact for funding allocation
- Funding to English Universities incentivise and contribute to impact

The Research Excellence Framework (REF)

- National evaluation of university research
- Conducted every 7 years
- A process of expert review carried out by disciplinary panels (36 Units of Assessment in REF2014, 34 in REF2021)
- REF informs the allocation of funding – around £2 billion per year
- Universities make submissions concerning:
 - Research outputs (academic impacts)
 - **Impact of research on society**
 - Research environment

Research Excellence Framework 2014

What was assessed

Panels judged the **overall quality** of each submission

65%

Quality of research **outputs**

191,150 research outputs by **52,061** staff were reviewed

20%

Impact of research on society

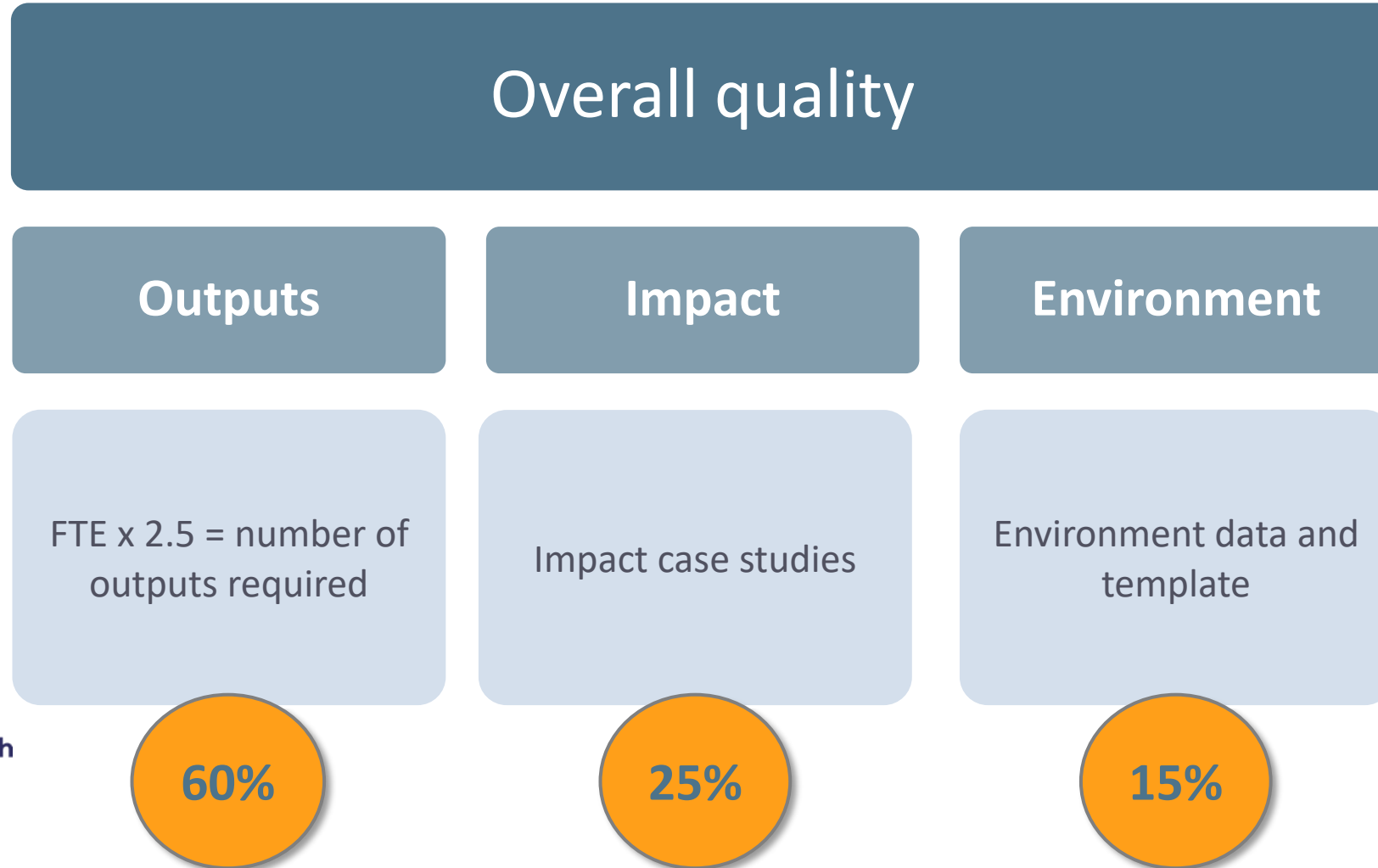
6,975 impact case studies were reviewed

15%

The research **environment**

The review was based on data and information about the environment

Research Excellence Framework 2021



Impact case studies

Impact

Impact case studies

25%

“an effect on, change or benefit to the economy, society, culture, public policy or services, health, the environment or quality of life, beyond academia”

- 5-page structured narrative
- links to ‘underpinning research’ (20 year time window)
- evidence and corroboration
- assessment by academics and research users
- criteria of ‘reach’ and ‘significance’

REF 2028 has a revised and rebalanced definition of research excellence

People, culture and environment

- Institution-level and disciplinary-level evidence statements

25%

Contribution to knowledge and understanding

- Research outputs (2.5x volume)
- Disciplinary-level evidence statement

50%

Engagement and impact

- Impact case study/ies
- Disciplinary-level evidence statement

25%

REF 2028 will draw on a range of evidence to inform assessment

Engagement and impact

- Impact case study/ies
- Disciplinary-level evidence statement

25%

Impact case studies:

- Number related to volume measure
- Only one case study required where volume less than 9.99 FTE
- Contributes 50-80% of EI score
- No quality threshold for underpinning research

Disciplinary-level statement:

- Contributes 20-50% of EI score (sliding scale depending on number of case studies)
- Contribution of unit to impact not reflected in case studies
- Engagement activity underpinning impact

Consultation:

- Thresholds for case study requirements
- Impact of reducing minimum case study requirement
- Use of sliding scale in weighting case studies

Consultation with panels:

- Content of disciplinary statement
- Additional criterion of rigour

REF impact outcomes influence considerable funding allocations

- In academic year 2023/24 core quality-related funding in England is £1,303M
- Of this, 25% depends on impact performance in REF: **£326M**
- Drives focus on delivering impact within universities and provides resources to support impact generation,

Other funding streams incentivise aspects of impact delivery

- Business collaboration. **£144M** in AY 2023/24 allocated in proportion to business investment in research
- Policy support funding. **£29M** in AY 2023/24 allocated in proportion to investment in research by public sector bodies. Must be used to support research for policy development
- Participatory research funding. **£6M** in AY 2023/24 allocated in proportion to scale of research activity. Must be used to support participatory research

**In total, over £500M allocated to
incentivise and support research
impact**

The impact of UK research is demonstrated by the case studies submitted to REF

The screenshot shows the REF 2021 website interface. At the top, the logo for REF 2021 (Research Excellence Framework) is displayed. Below the logo is a navigation menu with links for 'Results and submissions', 'Publications and Reports', 'Panels', 'Equality and Diversity', and 'FAQs'. A breadcrumb trail indicates the current location: 'Home / Results and submissions / Impact database'. The main heading is 'Impact case study database'. Below this, a brief description states: 'The impact case study database allows you to browse and search for impact case studies submitted to the REF 2021. Use the search and filters below to find the impact case studies you are looking for.' To the right of the description are several links: 'Download all impact case studies (spreadsheet)', 'REF 2014 impact case study database', 'Website help', 'View results', 'Submitted outputs' details', and 'Environment database'. The 'Search and filter' section is highlighted in a dark blue box. It contains a 'Clear search and filter' link, a 'Keyword search' input field, and a 'Learn more about advanced searching' link. Below the search field are 'Clear' and 'Search' buttons. The 'Filter by' section includes several dropdown menus, each with a 'Select' button and 'None selected' text: 'Higher education institution', 'Unit of assessment', 'Continued case study', 'Summary impact type', 'Impact UK location', and 'Impact global location'.

REF 2021 Research Excellence Framework

Home / Results and submissions / Impact database

Impact case study database

The impact case study database allows you to browse and search for impact case studies submitted to the REF 2021. Use the search and filters below to find the impact case studies you are looking for.

[Download all impact case studies \(spreadsheet\)](#)
[REF 2014 impact case study database](#)
[Website help](#)
[View results](#)
[Submitted outputs' details](#)
[Environment database](#)

[Impact case study database FAQs](#)

Search and filter

[Clear search and filter](#)

Keyword search

[Learn more about advanced searching](#)

Clear Search

Filter by

Higher education institution Select
None selected

Unit of assessment Select
None selected

Continued case study Select
None selected

Summary impact type Select
None selected

Impact UK location Select
None selected

Impact global location Select
None selected



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Recommendation

Parallel session: Science Funding Frameworks (Room 1.34)

Recommendation: “Let’s evaluate evaluation! We need more comparative studies looking at national impact evaluation frameworks.”