

Indicators for Impact

**Access to EU
research funding by
stimulating and
demonstrating
societal impact**

AESIS

8th Dec 2020, London

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 [@SimonRKerridge](https://twitter.com/SimonRKerridge)

<https://inorms.net/activities/raaap-taskforce/>



CRedit Working Group, NISO 

Board Member, EARMA



Immediate Past Chair, ARMA



Simon

- Ex Entrepreneur
- Ex Researcher
- Research Manager and Administrator
 - Entrepreneurial
 - Researching
 - Teaching
- EARMA Board Member
- Open Research Advocate
- Responsible Metrics (eg *Metric Tide* report)
- Research Administration as a Profession (RAAAP)
- JHU Masters in Research Administration
- Journal of Research Management and Administration

Simon



1987: Graduated (Natural Sciences)

1987-1990: Didn't become Bill Gates

1990-1994: Researcher (Durham) x3 projects

1994-1995: Researcher (Sunderland) x3 projects

1995-2012: It's complicated



University of
Sunderland

2012-Present: Director of Research Policy & Support,
University of Kent, UK

University of
Kent



University of Kent



55th Anniversary

~20k students

~1k researchers

~\$300m turnover

~\$40m (research income + QR core funding)

UK
17th for Research Intensity,
16th for Teaching Quality

World
~350th

Canterbury



Medway (2005)



Tonbridge (1982)



Brussels (1999)



Paris (2009)



Athens (2011)



Rome (2013)



Overview

Reprise on What is Impact

When is Impact Impactful?

How can Impact be Assessed

Impact Assessment in the UK

Generating Impact *[see Esther de Smet tomorrow]*

Demonstrating Impact

Levering Impact...

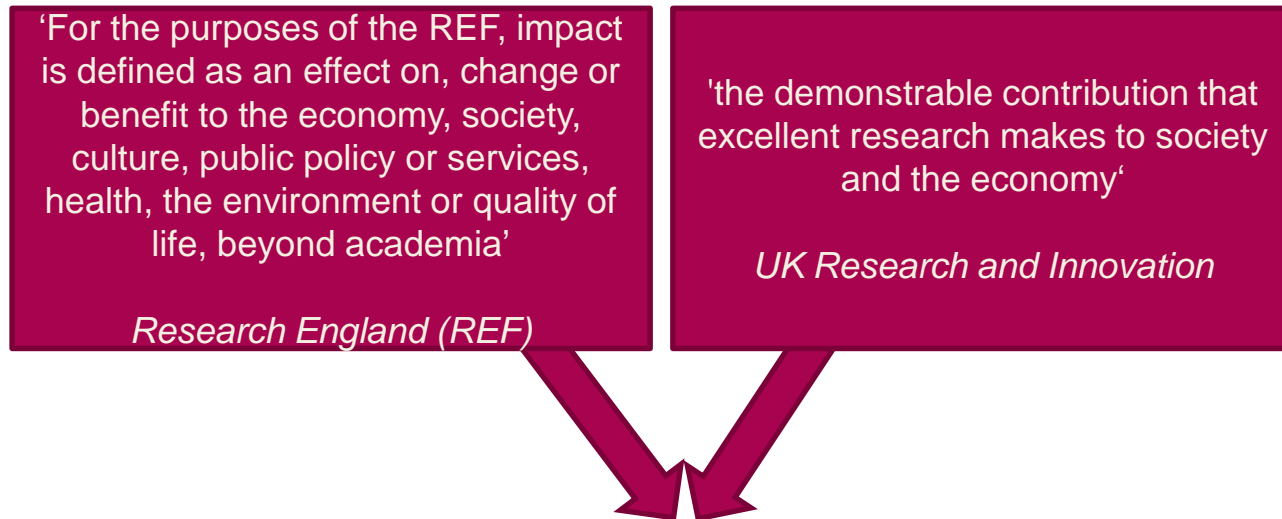
... for Future Funding

What is Impact?

Not Impact Factor

It's Impact [change]... outside Academia

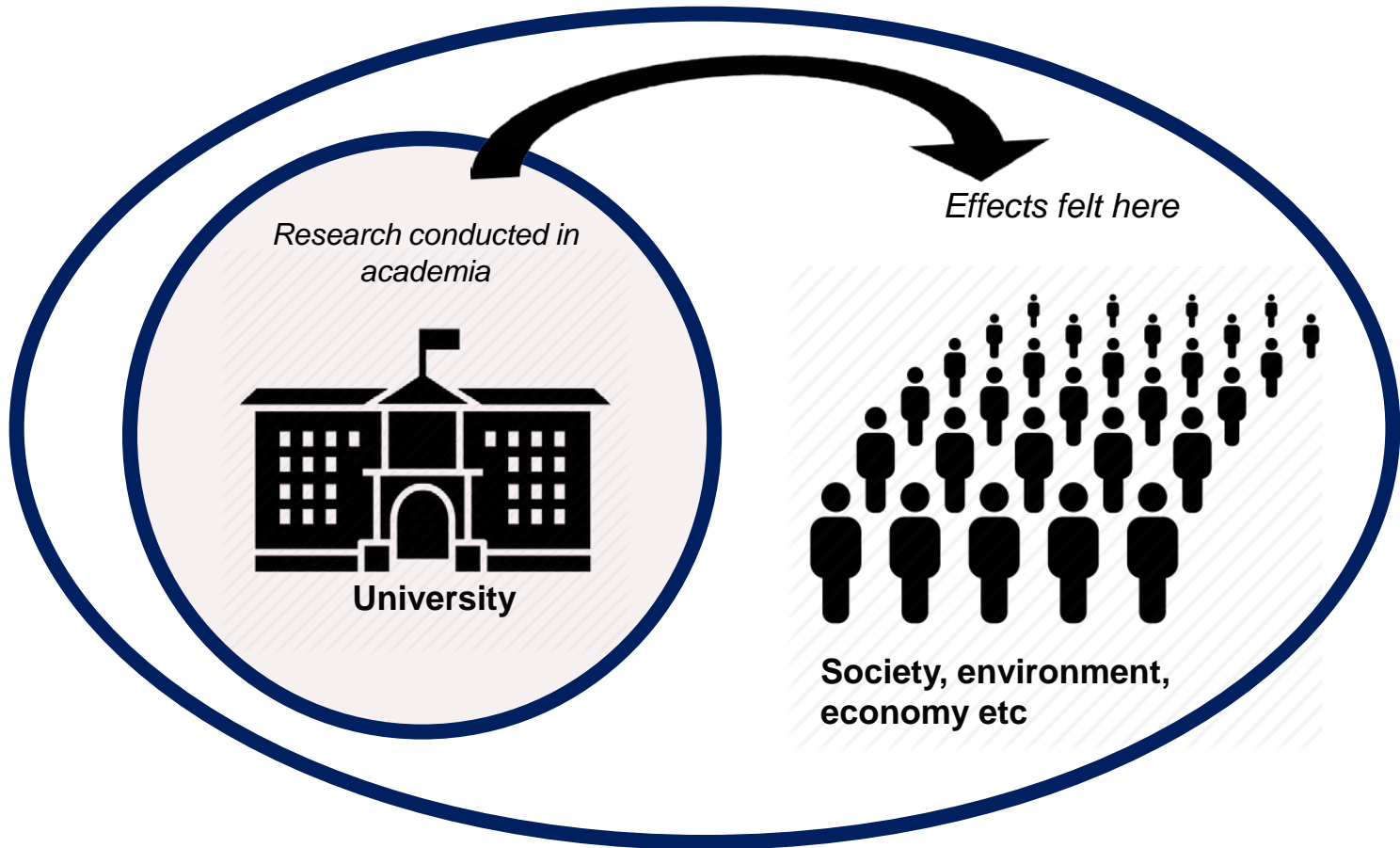
What is research impact? [UK]



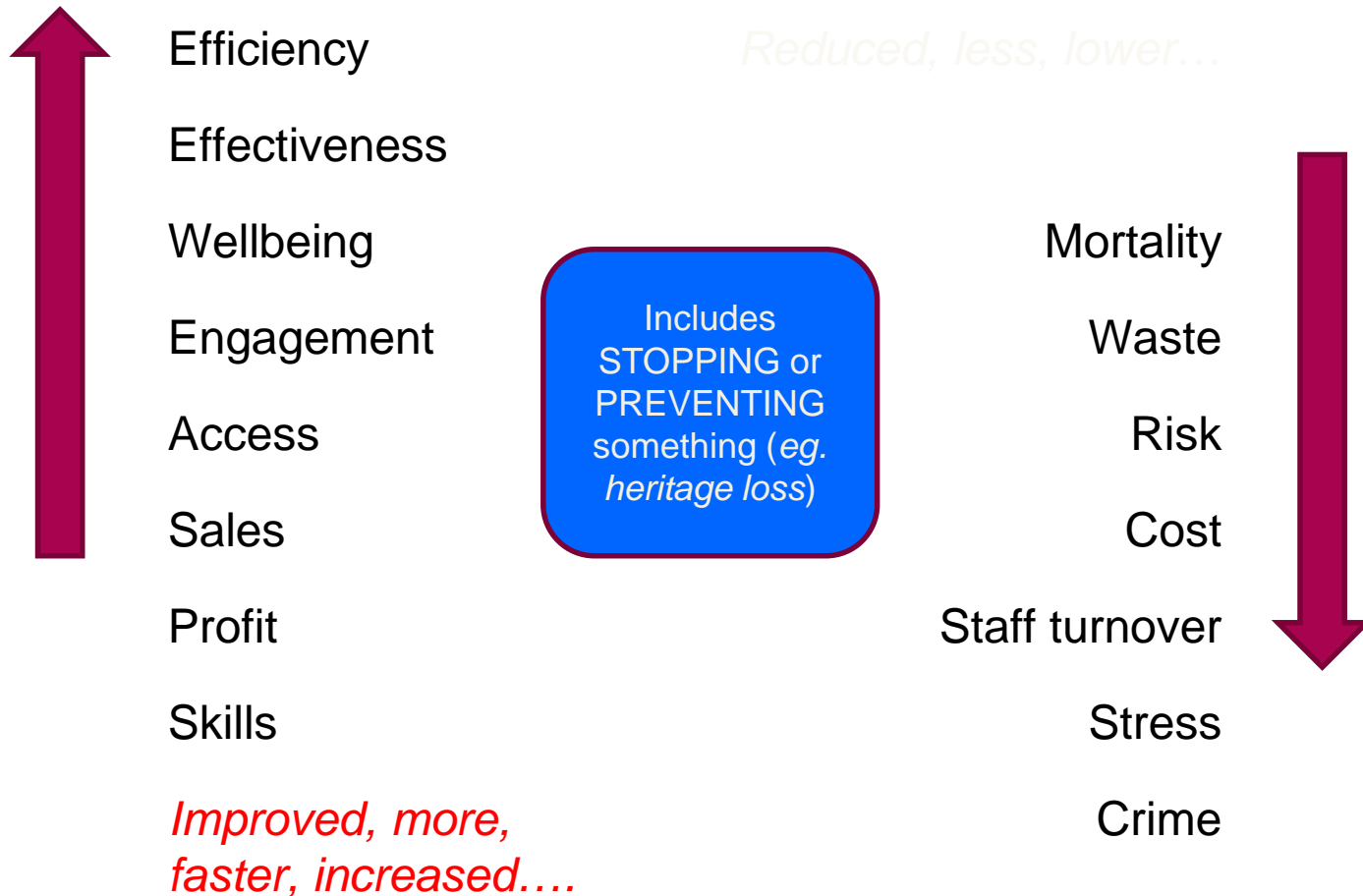
The provable effects (benefits) of research in the 'real world'

*Increased – Improved – Faster – Safer – Reduced – More – Cheaper – Less – Lower – Disrupted
etc*

Impact = Provable effects (benefits) of research beyond academia



Impact is change



Impact is not.....

- ☒ Dissemination, communication or engagement (alone)
- ☒ Based on non-research activities (needs to meet 'Frascati definition')
- ☒ Academic interest, citations, visibility or reputation
- ☒ Measured by publication metrics or measures of attention (eg. retweets)

Bibliometrics vs. impact measures

Bibliometrics

- **Demonstrate the scholarly attention for a research output**
- Citations based metrics (*eg. citations, H index, field weighted citation impact, percentile rankings*) calculate influence by the number of citations against certain benchmarks.
- The basic unit of measurement therefore is the level of *academic referencing*.
- Bibliometrics do not demonstrate change

Impact measures

- **Demonstrate the nature and extent of research-led changes (impacts) beyond academia**
- Impact does not always arise from a specific output, and may be achieved through wider engagement during the research process
- Impact measures may be quantitative or qualitative
- Measurement is of anything which demonstrates change beyond academia, arising from research

- *[although broad changes in (eg) higher education teaching practice could also be [REF] impact*

When is Impact... Impactful?

Interim Impact

Continuing Impact

Types of Impact

REF 2019/02
January 2019

Panel criteria and working methods

This document sets out the assessment criteria and working methods of the main and sub-panels for the Research Excellence Framework (REF) 2021.

REF2021 Research
Excellence
Framework

Areas of Impact

Impacts on the health and wellbeing of people, and animal welfare

Impacts where the beneficiaries are individuals and groups (both human and animals) whose health outcomes have been improved, whose quality of life has been enhanced (or potential harm mitigated) or whose rights or interests have been protected or advocated through the application of enhanced policy and practice for individuals or public health activities.



<https://www.ref.ac.uk/publications/panel-criteria-and-working-methods-201902/>

Areas of Impact

Impacts on creativity, culture and society

Impacts where the beneficiaries may include individuals, groups of individuals, organisations or communities whose behaviours, creative practices, rights, duties and other activity have been influenced.



<https://www.ref.ac.uk/publications/panel-criteria-and-working-methods-201902/>

Areas of Impact

Impact on social welfare

Impacts where the beneficiaries include individuals, groups of individuals, organisations or communities whose rights, duties, behaviours, opportunities, inclusion, quality of life and other activity have been influenced.



<https://www.ref.ac.uk/publications/panel-criteria-and-working-methods-201902/>

Areas of Impact

Impacts on commerce and the economy

Impacts where the beneficiaries may include businesses, either new or established, the NHS, private health and social care, agriculture or other types of organisation which undertake activity that may create wealth.



<https://www.ref.ac.uk/publications/panel-criteria-and-working-methods-201902/>

Areas of Impact

Impacts on public policy, law and services

Impacts where the beneficiaries are usually government, non-governmental organisations (NGOs), charities and public sector organisations and society, either as a whole or groups of individuals in society, through the implementation or non-implementation of policies, systems or reforms.



<https://www.ref.ac.uk/publications/panel-criteria-and-working-methods-201902/>

Areas of Impact

Impacts on production

Impacts where the beneficiaries are individuals (including groups of individuals) whose production has been enhanced.



<https://www.ref.ac.uk/publications/panel-criteria-and-working-methods-201902/>

Areas of Impact

Impacts on practitioners and delivery of professional services, enhanced performance or ethical practice

Impacts where beneficiaries may include organisations or individuals, including service users, involved in the development and/or delivery of professional services and ethics.



<https://www.ref.ac.uk/publications/panel-criteria-and-working-methods-201902/>

Areas of Impact

Impacts on the environment

Impacts where the key beneficiaries are the natural, historical and/or built environment, together with societies, individuals or groups of individuals who benefit as a result.



<https://www.ref.ac.uk/publications/panel-criteria-and-working-methods-201902/>

Areas of Impact

Impacts on understanding, learning and participation

Impacts where the beneficiaries are individuals, communities and organisations whose awareness, understanding, participation or engagement have been enhanced as a result of research.



<https://www.ref.ac.uk/publications/panel-criteria-and-working-methods-201902/>

Example Types: Social Welfare

- Improved social welfare, equality, social inclusion; improved access to justice and other opportunities (including employment and education).
- Engagement with research has enhanced policy and practice for securing poverty alleviation.
- Influential contributions to campaigns for social, economic, political and/or legal change through engagement with civil society groups.
- Changes to social policy have been informed by research.
- Changes to social policy have led to improved social welfare, equality or social inclusion.
- Research has contributed to community regeneration or development.
- Improved social and educational inclusion of marginalised groups in any given context, for example developing countries.
- More effective integration of refugees into host communities.
- Enhanced understanding of victims' needs in reconciliation processes in post-conflict states.



<https://www.ref.ac.uk/publications/panel-criteria-and-working-methods-201902/>

Example Types: Public Policy

- Policy debate has been stimulated or informed by research evidence, which may have led to confirmation of policy, change in policy direction, implementation or withdrawal of policy.
- Policy decisions or changes to legislation, regulations or guidelines have been informed by research evidence.
- A policy has been implemented (including those realised through changes to legislation) or the delivery of a public service has changed.
- In delivering a public service, a new technology or process has been adopted or an existing technology or process improved.
- The quality, accessibility, acceptability or cost-effectiveness of a public service has been improved.
- (Sections of) the public have benefited from public service improvements.
- Risks to the security of nation states have been reduced.
- The work of an NGO, charitable or other organisation has been influenced by the research.
- ...



<https://www.ref.ac.uk/publications/panel-criteria-and-working-methods-201902/>

Types of Impact

REF 2019/02
January 2019

Panel criteria and working methods

This document sets out the assessment criteria and working methods of the main and sub-panels for the Research Excellence Framework (REF) 2021.

REF 2021 Research
Excellence
Framework

134 Types of Impact Identified
NOT EXHAUSTIVE

A similar number of indicators of
reach and significance of impact

<https://www.ref.ac.uk/publications/panel-criteria-and-working-methods-201902/>

How can Impact be Assessed

Metrics...

[STAR METRICS® - Home \(nih.gov\)](#) →

[Federal RePORTER - Smart Search: Find federal agencies scientific awards data from this easy to use seamless search interface. \(nih.gov\)](#)

[Track research and evidence impact with Researchfish by Interfolio](#)

Case Studies...

The UK Research Excellence Framework

Impact Assessment in the UK

Research Funding in the UK

Dual Support System

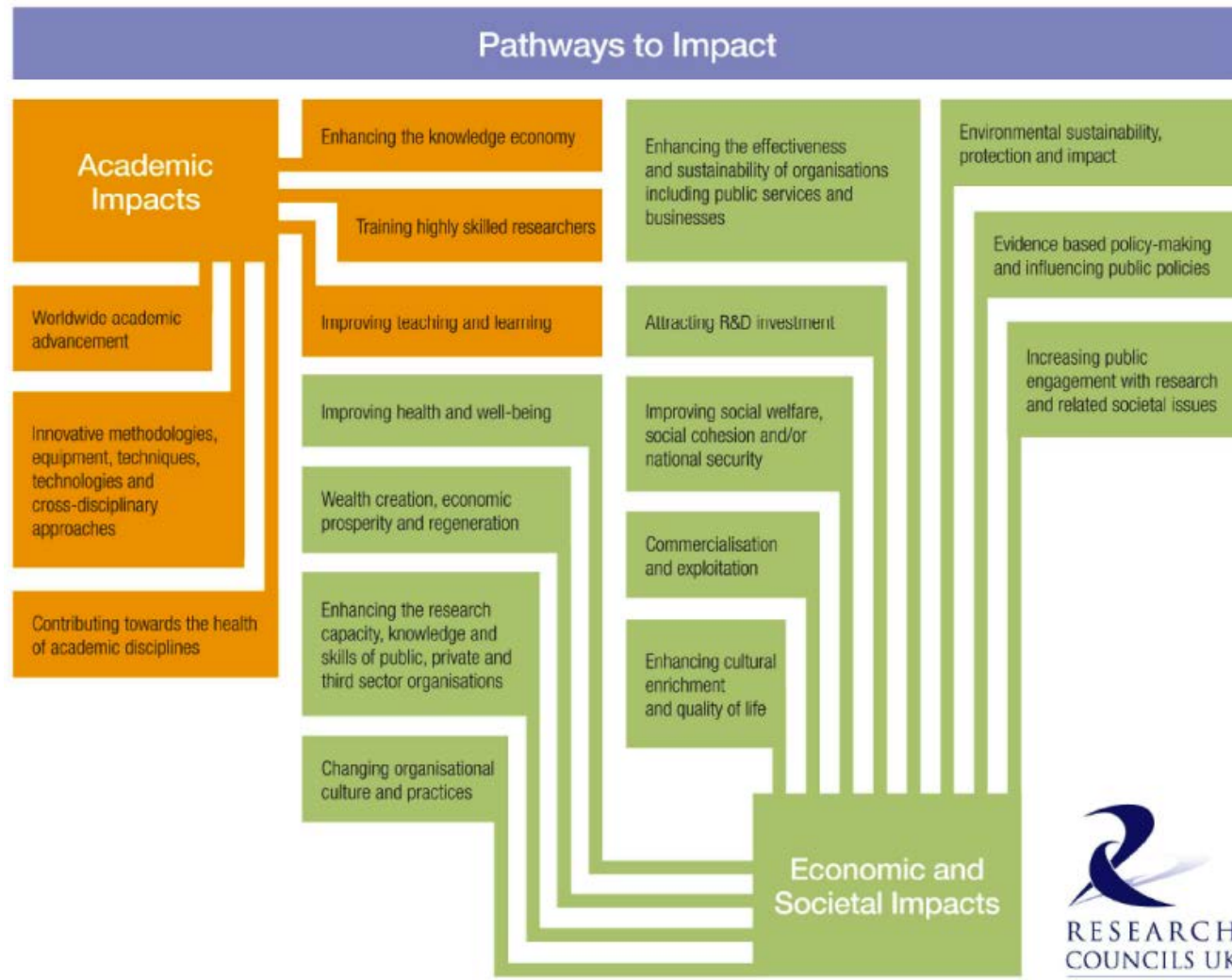
Impact Funding in the UK

REF Impact Case Studies

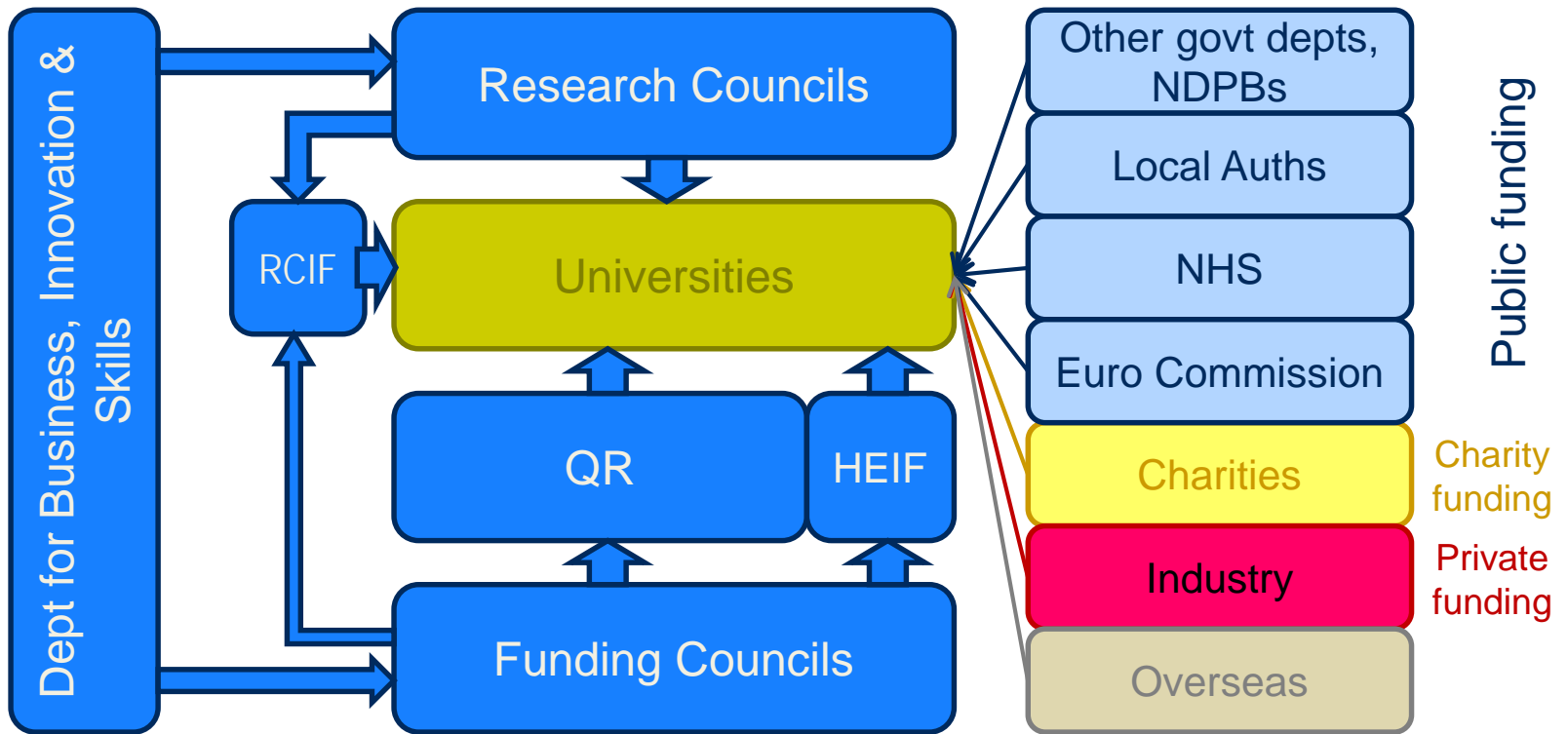
The UK Dual Support System

- Core funding – ‘QR’ – REF
- Project funding
 - RCUK *[UKRI]*
 - Charities
 - NHS/NIHR
 - Government departments
 - Industry
 - **EU**
 - Other...
 - Philanthropy
 - ...

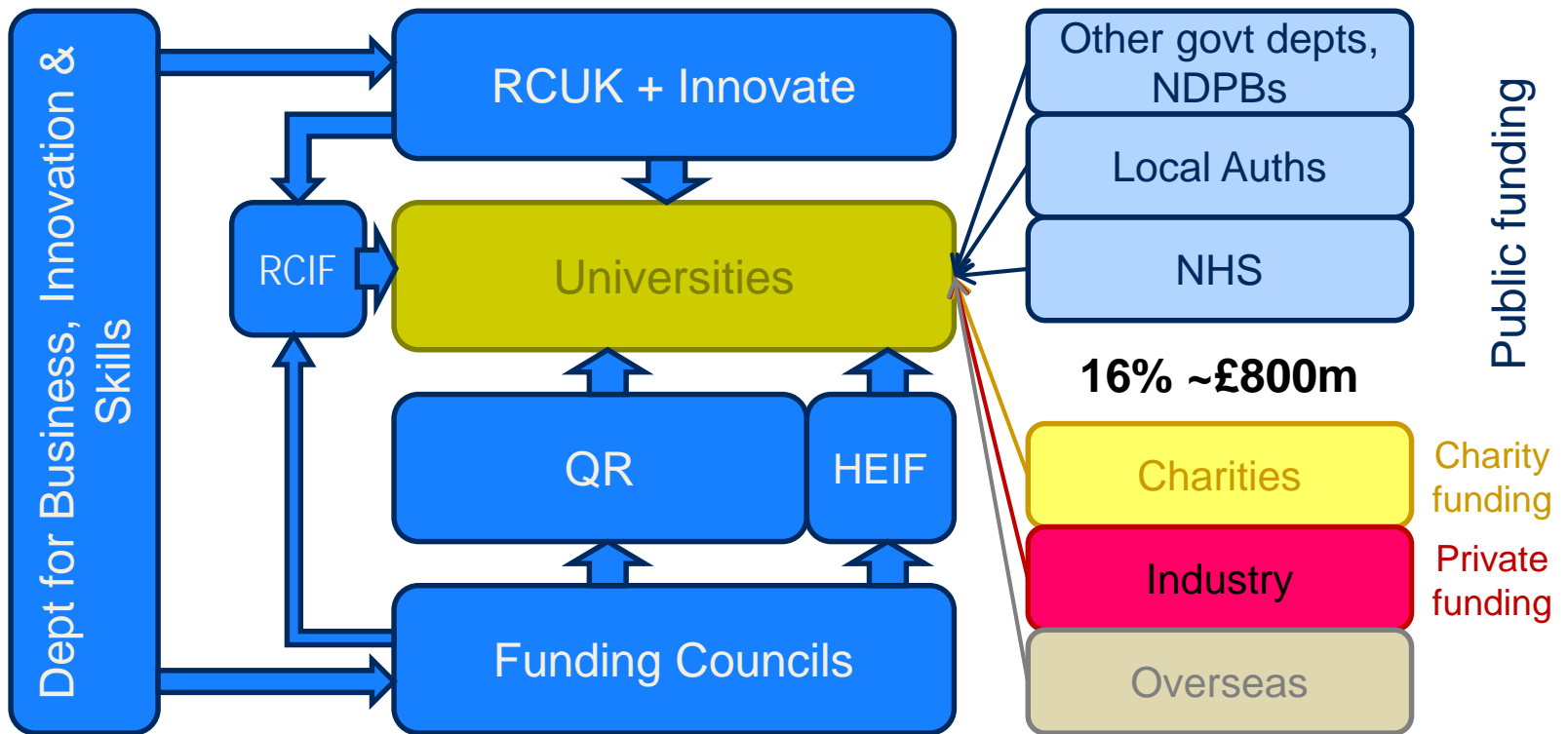
Projects... RCUK Impact



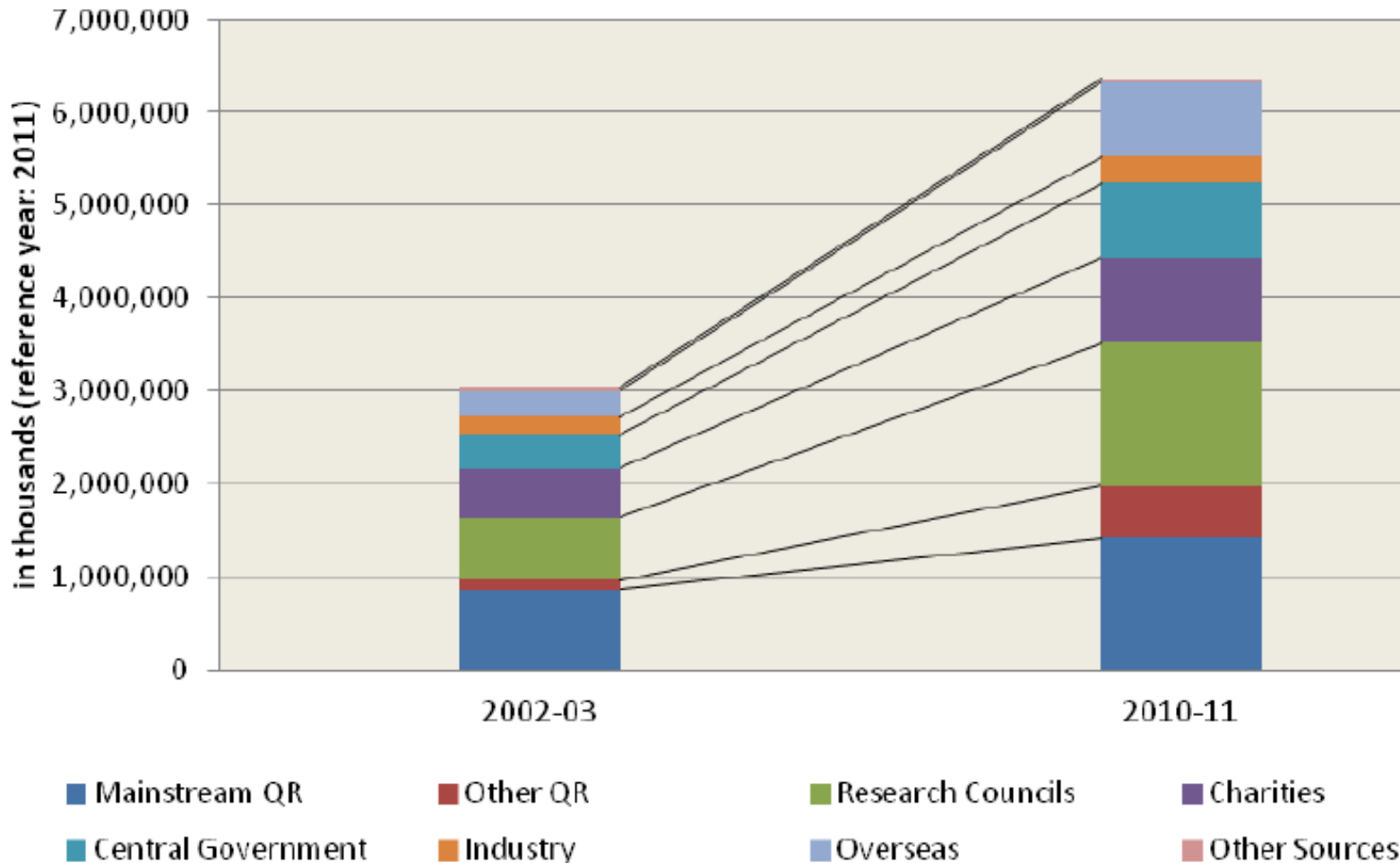
Dual Support: and the rest



Dual Support: and the rest



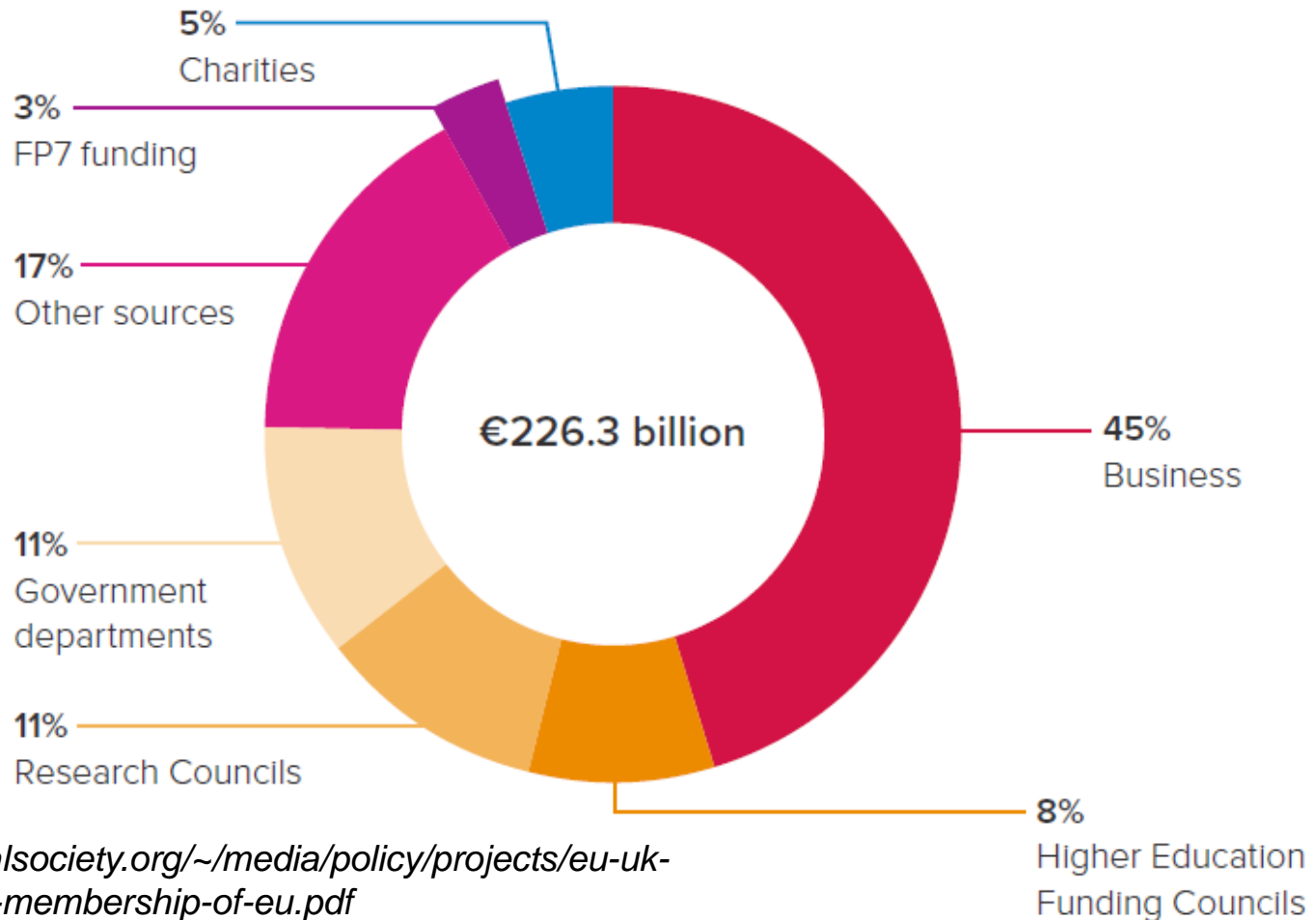
Dual Support System



Source: CBR & UK-IRC for BIS

UK R&D Expenditure

UK expenditure on research and development by source of funding. 2007 – 2013.*



UK University R&D Funding

Research income of UK Universities in 2009/10 and 2013/14*

Overall funding



<https://royalsociety.org/~media/policy/projects/eu-uk-funding/uk-membership-of-eu.pdf>

Breakdown

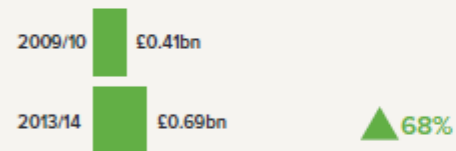
Other public sources (Government departments, NHS and local authorities)



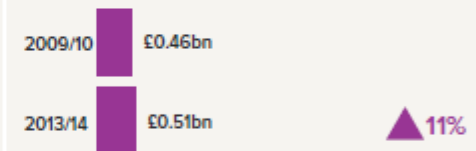
Government science budget (funding from BIS distributed through the Higher Education Funding Councils and the Research Councils)



European Union (Includes both Framework Programmes and Cohesion Policy)



Private sector (UK and foreign)



Other sources

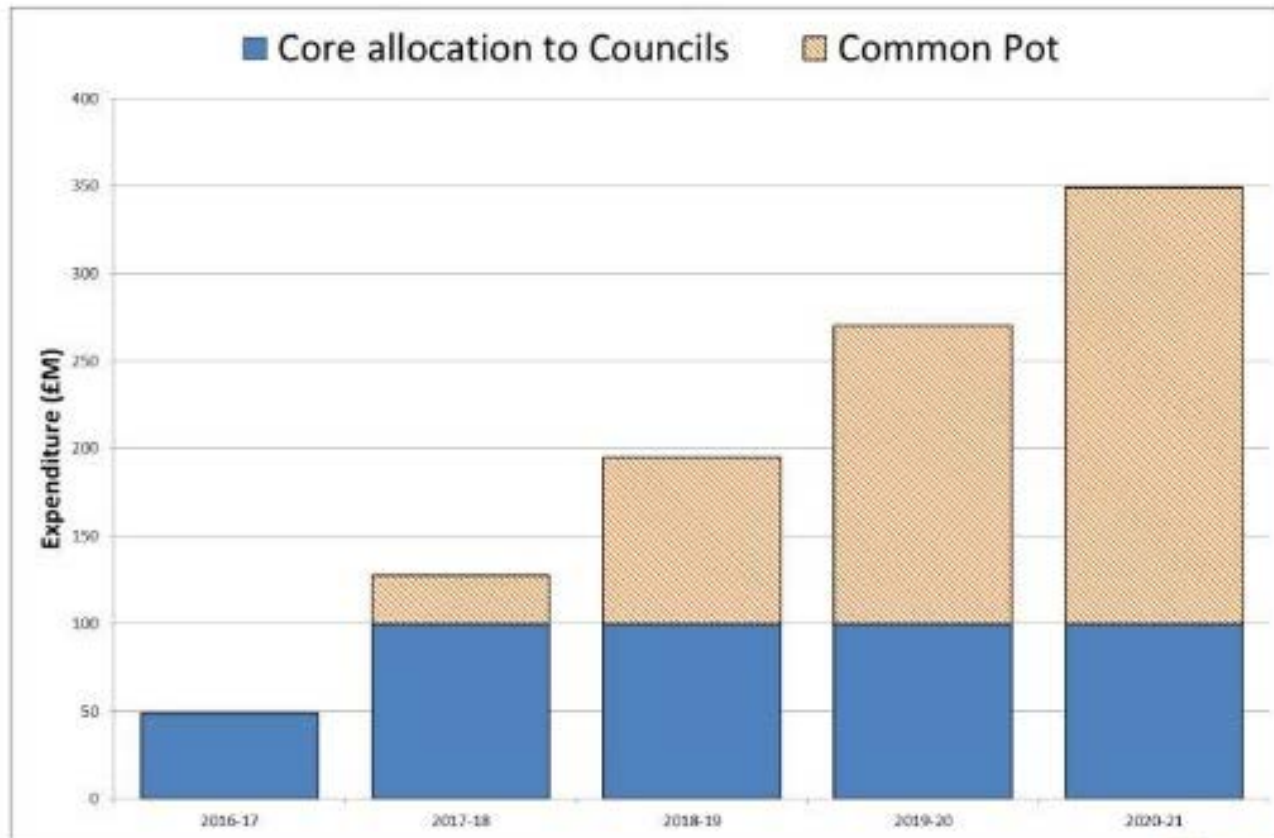


Charities (UK and foreign)



GCRF allocation

(4th March 2016)



<http://www.slideshare.net/LIDC/gcrf-rcuk-global-challenges-research-fund>



Purpose of the REF

The REF replaces the RAE as the UK-wide framework for assessing research in all disciplines. Its purpose is:

- To inform research funding allocations by the four UK HE funding bodies (approximately £2 billion per year)
- Provide accountability for public funding of research and demonstrate its benefits
- To provide benchmarks and reputational yardsticks

“QR”

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

Submissions

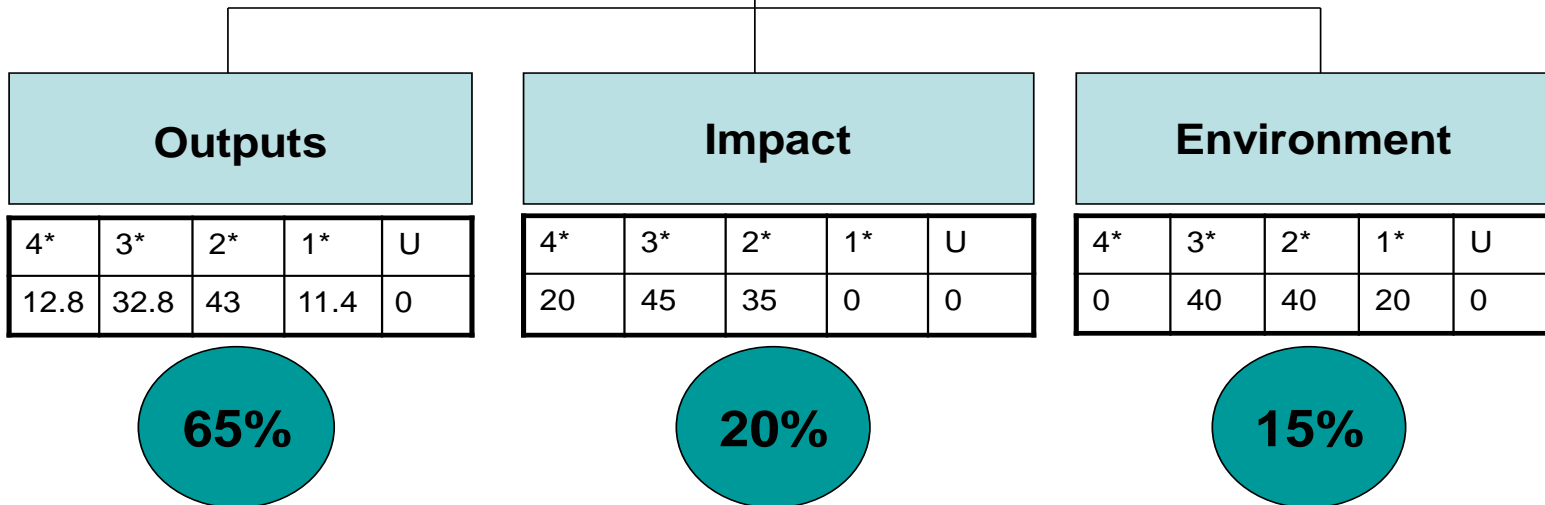
- Each submission in a UOA provides evidence about the activity and achievements of a ‘submitted unit’ including:
 - Staff details (REF1a/b/c)
 - Research outputs (REF2)
 - Impact template and case studies (REF3a/b)
 - Environment data (REF4a/b/c)
 - Environment template (REF5)
- A submitted unit may, but need not, comprise staff who work within a single ‘department’ or organisational unit

Example of a quality profile

The overall quality profile is comprised of the aggregate of the weighted sub-profiles produced for outputs, impact and environment.



Quality Level	4*	3*	2*	1*	U
% of Research Activity	12	37	41	10	0



Example of an impact sub-profile

Impact				
4*	3*	2*	1*	u/c
20	45	35	0	0

20%

- 20% [4%] Template & 80% [16%] Case Studies

- Assuming 8 Case Studies and no more accuracy than 'half marks' for Case Studies; and Template all of one quality level...

- Could be:

- 4* Template. 0x 4*, 4x3*, 1x 2.5*, 3x2* Case Studies; or
- 3* Template. 2x 4*, 2x3*, 1x 2.5*, 3x2* Case Studies; or
- 2* Template. 2x 4*, 4x3*, 1x 2.5*, 1x2* Case Studies

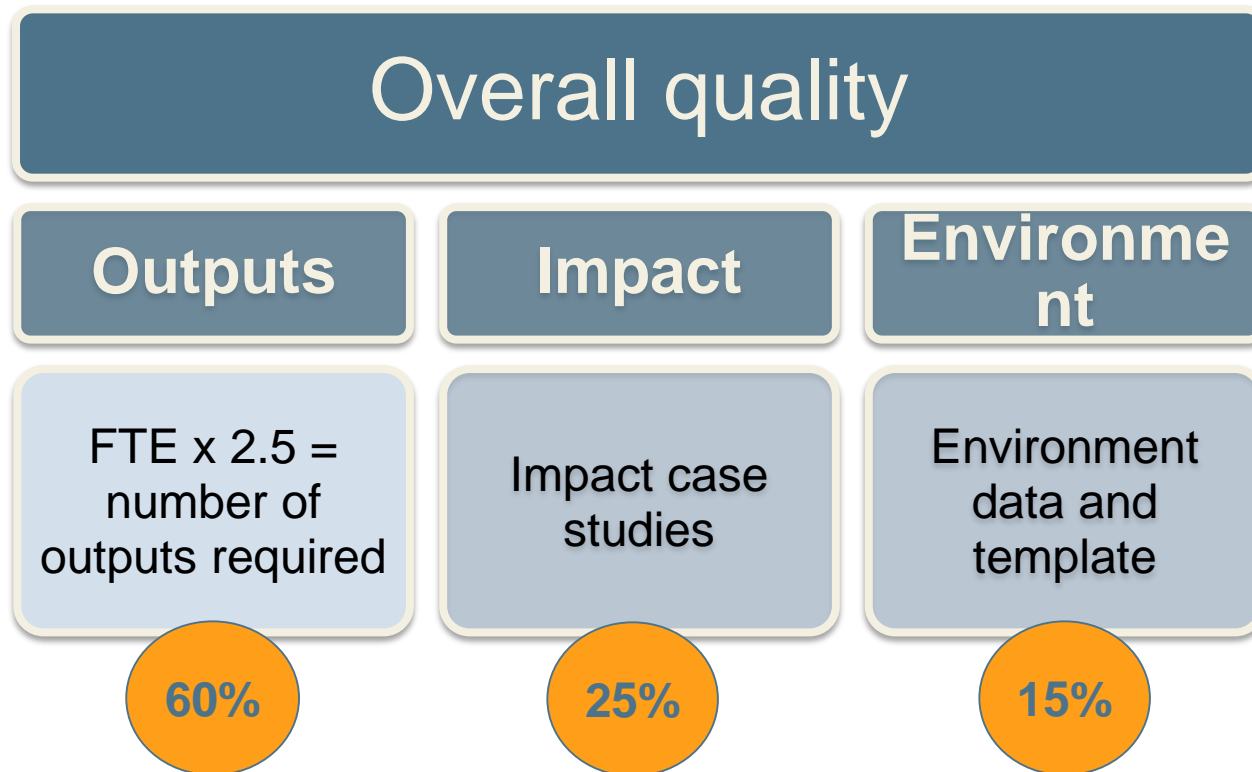
Definition of impact for the REF

- An effect on, change or benefit to the economy, society, culture, public policy or services, health, the environment or quality of life, beyond academia
- Impact **includes** an effect, change or benefit to:
 - The activity, attitude, awareness, behaviour, capacity, opportunity, performance, policy, practice, process or understanding
 - Of an audience, beneficiary, community, constituency, organisation or individuals
 - In any geographic location whether locally, regionally, nationally or internationally
- It **excludes** impacts on research or the advancement of academic knowledge within HE; and impacts on teaching or other activities within the submitting HEI

Range of impacts

- Panels recognise that Impacts can manifest in a wide variety of different ways, may take many forms and occur in a wide range of spheres
- Examples of impact may include:
 - Impacts on public policy and services,
 - Impacts on society, culture and creativity,
 - Impacts on practitioners and services,
 - Impacts on the environment,
 - Impacts on the economy

2021 framework



Key changes since REF 2014

Overall framework

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

Impact – submission

Submission:

- Impact remains eligible for submission by institution(s) where research was generated (i.e. non-portable)
- Impact must be underpinned by research of minimum 2* quality
- Timeframe:
 - 1 January 2000 - 31 December 2020 for underpinning research
 - 1 August 2013 - 31 July 2020 for impacts ***[NOW 31st Dec 2020 due to Covid-19]***
- Case studies continued from examples submitted in 2014 will be eligible for submission in REF 2021, **provided they meet the same eligibility criteria**

Impact – criteria

Assessed against two criteria:

Reach

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

Significance

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

Impact – types and indicators

- Panels welcome case studies that describe **any type(s)** of impact
- Panel will welcome, and assess equitably, case studies describing impacts achieved through public engagement, either as the main impact described or as one facet of a wider range of impacts.
- Impact on teaching within (and beyond) own HEI is eligible
- Case studies must provide a clear and coherent narrative supported by verifiable evidence and indicators
- Should provide evidence of reach and significance of the **impacts**, as distinct from evidence of dissemination or uptake
- Annex A includes an extensive – but not exhaustive – list of examples of impact and indicators, including evaluation frameworks from non-HE organisations ← ***we have already looked at some of these***

Impact – underpinning research

- Panels recognise that the relationship between research and impact can be indirect and non-linear
- Underpinning research as a whole must be min. 2* quality ← **this is a low bar, 97% of the outputs submitted in 2014 were assessed 2* or higher**
- Case studies must include up to six key references (not every output referenced has to be 2*) – HEIs can consult the outputs glossary in the Guidance on submissions
- Can also include indicators of quality e.g. evidence of peer-reviewed funding, prizes or awards for individual outputs etc.
- May be a body of work produced over a number of years or may be the output(s) of a particular project

Impact in the UK

- Pathways to Impact
 - “mainstreamed”
 - → [Esther de Smet, tomorrow]
- Research Excellence Framework
 - REF2014
 - Impact Case Studies (80% of 20%) → 16%
 - <https://impact.ref.ac.uk/> [6,637]
 - REF2021
 - Impact Case Studies → 25%



Timescales

- **Impact Case Studies**
 - Based on underpinning work going back ~15 years
- REF2014 drives income until REF2021
- 2020 – submission (now 2021)
- 2021 – assessment
- 2022 – results → funding for 2022/23
- **Wow 1993 research** (underpinning impact in the 2008-2013 period or REF 2014) **still rewarded in 2021/22 !!!**
- **Impact is a long term game!**

OK, so what is an Impact Case Study?

4 pages [REF2014]

Title

Summary [100]

Research [500]

References [6]

Impact [750]

Corroboration [10]

Contact Details [5] (confidential, not published)

- Corroborating contacts, & corroborating statements

Impact Case Study Example

- History, University of Kent
- *Medical Ethics and the Legal Dimension of Britain's Biological and Chemical Warfare Programme, 1945-1989*

This case study relates to policy making and cultural life. Ulf Schmidt's international recognised excellence in the field of the history of medical ethics led him to:

- Play a pivotal role in shaping the **mediation, compensation and reconciliation** processes between Her Majesty's Government (HMG) and the **Porton Down Veterans Support Group (PDVSG)**.
- Enhance **public understanding of the history of medical ethics** through the 'War and Medicine' exhibition at the Wellcome Collection, Wellcome Trust, London (November 2008-February 2009), later shown at the German Hygiene Museum, Dresden (April to August 2009) and the Canadian War Museum Ottawa (May to November 2011).

Schmidt provided **expert testimony in the high profile legal case** brought against HMG for the Ministry of Defence's failure to seek informed consent for medical experimentation on service personnel at Porton Down; his work materially assisted over **700 veterans to £10m** in compensation awards and resulted in a **public apology from HMG to Porton Down veterans**.

The exhibition attracted **185,000 visitors in the UK, Germany and Canada** and achieved positive critical comment, revealing the reach and significance of the impact.

Impact Case Study Example

- Underpinning research

The research was carried out by **Ulf Schmidt (Lecturer 2001-2005; Senior Lecturer 2005-2007; Professor since 2007)** and his research associate (Dr David Willcox, PhD 2004). The work resulted from, and extended, **Schmidt's Wellcome-funded work** on medical ethics and the **Nuremberg Code (Schmidt 2004)**.

Key findings were derived from extensive archival research at The National Archives, Kew; the National Archives and Records Administration, Washington D.C.; the Churchill Archives Centre, Cambridge; the Imperial War Museum; Liddell Hart Centre for Military Archives; King's College London; the Medical Research Council; the Library and Archives Canada, Ottawa; University of Sussex; University of Brighton; and the Wellcome Trust, London, to name but a few.

To further research focussed on Porton Down, Britain's chemical and biological warfare establishment since the First World War, Schmidt oversaw the creation of a database containing over 1500 entries relating to key documents as well as an archive containing witness statements, court transcripts, oral history testimony, film and photographs. From this research, **Schmidt revealed that:**

- The Nuremberg Trials forcefully reminded the world that the issue of informed consent was crucial to ethical conduct in medical science. This recognition was given formal status in international codes of medical ethics, especially in the so-called Nuremberg Code (1947) and the World Medical Associations' Declaration of Helsinki (1964).
- Despite this, scientists working at Porton Down between c.1940-1965 routinely carried out experiments which contravened these codes of medical ethics.

In particular, **Schmidt's research discovered and determined that:**

- Porton's nerve agent experiments were by far one of the largest nerve agent trials ever performed, involving over 1,500 subjects. Almost 400 subjects were exposed to Sarin.
- Experiments were unusual in the magnitude of the risks. An increasing number of subjects were exposed to increasing dosages of Sarin, known to be highly toxic and potentially lethal.
- Porton's scientists carried out a series of dangerous experiments on service personnel 'volunteers', which demanded, given the nature of the trials, that the highest degree of safety and the most rigorous standards of research ethics known at the time should have applied.
- None of the evidence indicated that any of the experimental subjects was ever informed about the specific objective of the experiments.
- Section 10 of the Crown Proceedings Act 1947 could not protect the Crown from legal liability.

A key case emerged from this research:

- On 6 May 1953, the Leading Aircraftman Ronald Maddison died at Porton Down after being exposed to 200mg of the nerve agent Sarin. The original inquest (verdict of 'misadventure') in 1953 was held in secret for reasons of 'national security'.
- Maddison's death was an accident waiting to happen which resulted from an inadequate level of disclosure and an understatement of risks, despite the fact that there was widespread consensus in the UK that the Nuremberg Code should govern these types of experiments.

Impact Case Study Example

- References to the research

Peer reviewed publications

- 1. Ulf Schmidt, *Justice at Nuremberg: Leo Alexander and the Nazi Doctors' Trial* (Basingstoke: Palgrave Macmillan, 2004)
- 2. Ulf Schmidt, 'Cold War at Porton Down: Informed Consent in Britain's Biological and Chemical Warfare Experiments', *Cambridge Quarterly for Healthcare Ethics*, Vol. 15, No. 4, 2006, 366-380, DOI: <http://dx.doi.org/10.1017/S0963180106060488>
- 3. Ulf Schmidt, 'Medical Ethics and Human Experimentation at Porton Down: Informed Consent in Britain's Biological and Chemical Warfare Experiments', pp. 283-313 in Ulf Schmidt and Andreas Frewer (eds), *History and Theory of Human Experimentation. The Declaration of Helsinki and Modern Medical Ethics*, (Stuttgart: Franz Steiner, 2007).
- 4. Ulf Schmidt, 'Justifying Chemical Warfare': REF2 Output 3 (EP-31119)
- 5. Ulf Schmidt, 'Accidents and Experiments': REF2 Output 4 (EP-31122)

Research grants

- 1997: Three-Year Wellcome Trust Fellowship Award on 'Medical Ethics and Post-War Justice: Dr Leo Alexander and the Nuremberg Medical Trial, 1930 – 1950' (No. 052912): £83,8K.
- 2004 Three Year Wellcome Trust Project Grant on 'Cold War at Porton Down: Medical Ethics and the Legal Dimension of Britain's Biological and Chemical Warfare Programme, 1945-1989' (No. 073435): £189K.

Schmidt's meticulous research and approach has received outstanding reviews from, among others, Professor Dan Stone (Royal Holloway) in the *Times Higher Education Supplement*, Professor Michael Hau (Monash University) in *German History*, and Sir Ian Kershaw, who called Schmidt's recent full-length study on Karl Brandt an 'excellent biography' which 'casts significant new light on how a cultured, intelligent and idealistic doctor could so fervently believe in the principles of Nazi inhumanity that down to his execution he saw nothing wrong in eliminating the sick and infirm in the interests of a more healthy Volkskörper'.

Impact Case Study Example

- Details of the impact (1/3)

Schmidt's association with the PDVSG commenced before the REF assessment period and culminated in 2010. It came about on the recommendation of the Maddison family's lawyer, Alan Care, who had read Schmidt's work on the Nuremberg Trials. Schmidt's input was driven both by his pre-existing knowledge of the wider context of medical ethics and his direct, and on-going, research into the precise nature of procedures at Porton Down. The following outcomes were therefore intimately linked to Schmidt's research and publications.

To ensure that the final outcome is fully understood the following summary of the pre-2008 impact is necessary [See also 5.1]:

- On 10 May 2004, Gerwyn Samuels QC, acting on behalf of Maddison's family, read the Treasury Solicitor letters, which Schmidt had discovered, into the court transcript during the Maddison Inquest. The letters thereby became 'public documents' (Court Transcript Day 4).
- Schmidt was then appointed as the principal expert witnesses to evaluate the history of informed consent. On 15 November 2004, after a sixty-four day trial, then the longest inquest in UK legal history (prior to the inquest into the death of Diana, Princess of Wales), the jury ruled that Maddison was 'unlawfully killed', and that the cause of death was a chemical warfare agent in a non-therapeutic experiment.
- On 20 December 2004, the MoD Minister Ivor Caplin stated in the House of Commons that the MoD would pay compensation to the Maddison family and apologise. In May 2006, after accepting that Ronald Maddison was 'unlawfully killed by reason of gross negligence' the MoD settled the Maddison claim for £100,000.
- In January 2005, the MoD waived Section 10(2) of the Crown Proceedings Act 1947 as defence against claims by Maddison's family. The MoD's decision opened up the possibility for a multi-party action (MPA) by 359 Porton Down veterans to claim compensation from the MoD, which led to a Second Adjournment debate on Porton Down in the Commons (Hansard, Westminster Hall, 22/2/2005, Column 32WH, Porton Down)
- In 2007, Schmidt informed the UK Ombudsman about his findings and called on all parties to seek a negotiated solution (correspondence with UK Ombudsman, 25/9/2007).
- In December 2007/January 2008, Schmidt's research helped to shape, mediate and inform the discussions between the MoD and the PDVSG over compensation claims. According to the PDVSG and the senior lawyer representing the Porton veterans, during the process Schmidt 'made a substantial contribution as to the thorny issues of liability, ethics and consent and his evidence, advice and recommendations were seminal'. [5.2; 5.3]
- Following two mediation meetings on 21 December 2007 and 11 January 2008, both of which were informed by Schmidt's research, HMG and the PDVSG reached an amicable settlement about claims that Porton veterans had suffered ill-health as a result of Cold War experiments, that some of them may have been 'duped' to participate, and that the risks involved may not have been properly explained to them.

Impact Case Study Example

- Details of the impact (2/3)

Schmidt's contribution then culminated between January 2008 and 2010 when he continued his activity on behalf of the PDVSG helping them to capitalise on the MoD's altered stance. The full **reach** and **significance** of Schmidt's impact can be seen in the fact that:

- On 31 January 2008, the Parliamentary Under-Secretary of State for Defence (Derek Twigg) **announced a £3 million settlement** scheme for the Porton Down veterans, and gave a public apology in the House of Commons: '*... The Government accept that there were aspects of the trials where there may have been shortcomings and where, in particular, the life or health of participants may have been put at risk. The Government sincerely apologise to those who may have been affected*'. [5.4]
- The statement marked a key milestone and end product in the decade-long campaign by the PDVSG that non-therapeutic human trials in which they had taken part had been unethical, and that they warranted an apology and financial compensation. It demonstrated that Professor Schmidt's contributions had, after many incremental steps, **led to a major beneficial impact** for a distinctive societal group.
- The scheme worked as follows: In 2008, **the MoD settled a total of 360 Porton claims at a total cost of £4.7 million**, including legal costs. Over the next two years, a total of ca. 470 new Porton claims were submitted to the MoD. [5.5]
- In December 2008, the MoD settled a tranche of **130 claims at a total cost of £3.87 million**, including legal costs. [5.5: 2008/09] Of 152 new Porton Down claims received in 2008, the MoD settled almost all within the year. [5.5: 2010/11]
- In April 2009, the MoD settled a second tranche of **141 claims at a total cost of £1.39 million**, including legal costs. [5.5: 2010/11]
- In 2010, the MoD settled a third tranche of **18 claims at a total cost of £165,661**, including legal costs. [5.5: 2010/11] The campaign to seek justice for the Porton veterans had finally come to a successful conclusion.
- From 2008-2010, HMG paid a total of over **£10 million in compensation** (including legal costs) to the Porton Down veterans. [5.5]

Schmidt's vital contribution was fully acknowledged by the chairman of the PDVSG who stated that he had 'made a substantial contribution to the issues of liability, ethics and informed consent and his advice and recommendations were seminal'. [5.2]

Impact Case Study Example

- Details of the impact (3/3)

Enhancing public understanding of the history of medical ethics at the Wellcome Collection

In 2008-2009, Schmidt contributed to the [‘War & Medicine’](#) exhibition and took part in an associated panel discussion, [‘A Doctor’s Duty’](#), aimed at the wider public. Schmidt led on the subject of human experimentation, particularly in relation to medical war crimes committed by German doctors during the Second World War. He also helped to organise a section of the exhibition on the history of chemical warfare and Porton Down, which included a display of one of the original Treasury Solicitor letters from 1953. From April to August 2009, the exhibition was also shown at the [German Hygiene Museum](#), Dresden, and from May to November 2011 at the [Canadian War Museum](#), Ottawa.

Reach

In the UK, the exhibit attracted 35,000 visitors over its 12-week run. During the last days, Wellcome Collection saw up to 2,000 visitors per day. In Germany, it received 50,000 visitors, and in Canada 100,000 visitors. [The Canadian War Museum saw a 33% increase in visitor numbers.](#) [5.6] [‘A Doctor’s Duty’ panel discussion on 15 January 2009 was attended by 73 people.](#) [5.7]

Significance

The feedback for the exhibition was universally positive. Reviews and feature-length articles were published by a wide variety of titles including BBC online, *Big Issue*, *British Medical Journal*, *BMA News Reviews*, *Dow Jones Equities Wire*, *Financial Times*, *Guardian*, *Health Service Journal*, *Lancet*, Ministry of Defence online, *Officer*, *Socialist Worker*, *Sunday Telegraph*, *Time Out*, *The Times*, *TNT Magazine* and the *Weekend Journal*. [5.8] [The Sunday Telegraph stated ‘anyone with an interest in the past, and its relationship to the present, will find it enthralling’ \(21 December 2008\) and the Financial Times labelled it ‘provocative, eclectic, intelligently curated... it is well worth the excursion’ \(20 December 2008\).](#) [5.8] [‘A Doctor’s Duty’ panel discussion was equally well-received. Audience member comments noted that ‘the choice of speakers was excellent’ and praised ‘the speakers’ insights and their excellent answers to difficult questions’.](#) [5.7]

[Schmidt’s research has therefore significantly enhanced the lives of Porton Down veterans and their families, as well as enhancing public understanding of medical ethics.](#)

Impact Case Study Example

- Sources to corroborate the impact

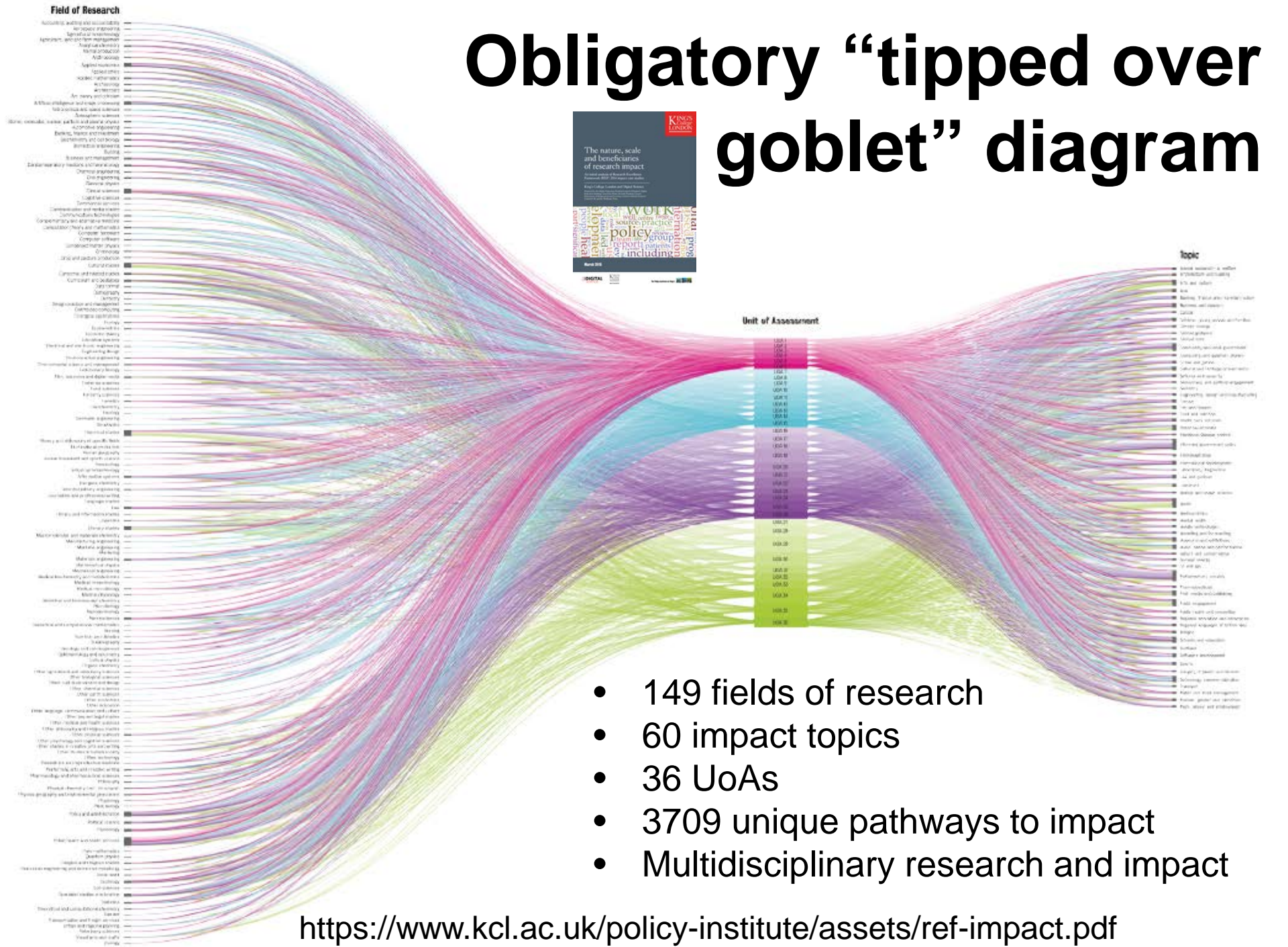
Information relating to the Porton Down Case:

1. [“Chronology of Porton Down Litigation”](#)
2. PDVSG: Statement by First Chairman of PDVSG, 30 November 2011 **Statement**
3. Thompson Snell & Passmore: Statement by Senior Litigation Executive, 24 November 2011
4. [Hansard, 31 January 2008](#), Column 21WS: Porton Down Veterans **Statement**
5. Ministry of Defence, Claims, Annual Reports, [2008/9](#) and [2010/11](#)

Information on the ‘War and Medicine’ exhibition and ‘A Doctor’s Duty’ panel discussion: **Statement**

6. Correspondence with James Peto, Senior Curator, Wellcome Collection, regarding visitor numbers, February 2009 and November 2011 **Contact**
7. Correspondence with Rosie Tooby, Events Officer, Wellcome Collection regarding public attendance and feedback on ‘A Doctor’s Duty’ panel discussion, January 2009
8. Wellcome Collection: [Media coverage of ‘War and Medicine’](#)

Obligatory “tipped over goblet” diagram



- 149 fields of research
- 60 impact topics
- 36 UoAs
- 3709 unique pathways to impact
- Multidisciplinary research and impact

<https://www.kcl.ac.uk/policy-institute/assets/ref-impact.pdf>

Also pretty diagram (bottom of goblet)

<https://www.kcl.ac.uk/policy-institute/assets/ref-impact.pdf>



- Relationship between the type of impact and the UoA
- Some topics cut across several UoAs
 - (e.g. Technology commercialization, Informing Government policy)

Impact Case Studies

Search REF Impact Case Studies

Browse the index below or search all Case Studies using keywords [e.g. "NHS"].

Search all Case Studies...

Learn about [advanced search options](#) and read our [Terms of Use](#).

Browse the index

Submitting Institution Unit of Assessment Summary Impact Type Research Subject Area Impact UK Location Impact Global Location

Unit of Assessment

Type Unit of Assessment

Main Panel A	(1586)	Main Panel B	(1469)
1 - Clinical Medicine	(383)	7 - Earth Systems and Environmental Sciences	(171)
2 - Public Health, Health Services and Primary Care	(163)	8 - Chemistry	(125)
3 - Allied Health Professions, Dentistry, Nursing and Pharmacy	(343)	9 - Physics	(181)
4 - Psychology, Psychiatry and Neuroscience	(317)	10 - Mathematical Sciences	(210)
5 - Biological Sciences	(267)	11 - Computer Science and Informatics	(251)
6 - Agriculture, Veterinary and Food Science	(126)	12 - Aeronautical, Mechanical, Chemical and Manufacturing Engineering	(120)
		13 - Electrical and Electronic Engineering, Metallurgy and Materials	(128)
		14 - Civil and Construction Engineering	(51)
		15 - General Engineering	(240)
Main Panel C	(1965)	Main Panel D	(1617)
16 - Architecture, Built Environment and Planning	(142)	27 - Area Studies	(69)
17 - Geography, Environmental Studies and Archaeology	(235)	28 - Modern Languages and Linguistics	(190)
18 - Economics and Econometrics	(98)	29 - English Language and Literature	(281)
19 - Business and Management Studies	(411)	30 - History	(263)
20 - Law	(216)	31 - Classics	(59)
21 - Politics and International Studies	(166)	32 - Philosophy	(98)
22 - Social Work and Social Policy	(187)	33 - Theology and Religious Studies	(75)
23 - Sociology	(97)	34 - Art and Design: History, Practice and Theory	(231)
24 - Anthropology and Development Studies	(80)	35 - Music, Drama, Dance and Performing Arts	(194)
25 - Education	(215)	36 - Communication, Cultural and Media Studies, Library and Information Management	(159)
26 - Sport and Exercise Sciences, Leisure and Tourism	(122)		

<https://impact.ref.ac.uk>

Search again: "porton down"

REF impact found 15 Case Studies for: "porton down"

Currently displayed text from case study: Summary of the impact

[Cold War at Porton Down: Medical Ethics and the Legal Dimension of Britain's Biological and Chemical Warfare Programme, 1945-1989](#)

Summary of the impact

This case study relates to policy making and cultural life. Uf Schmidt's international recognised excellence in the field of the history of medical ethics led him to:

[Read More](#)

Submitting Institution	Unit of Assessment	Summary Impact Type
University of Kent	History	Political

Research Subject Area(s)
 Studies in Human Society: Political Science
 Philosophy and Religious Studies: Applied Ethics

[Collaboration research influencing defence and security policy, strategy and](#)

Filter Impact Case Studies

Submitting Institution: All institutions (15)

Show only Joint Submissions

Unit of Assessment: All Units of Assessment (15)

Summary Impact Type: All Impact Types (15)

Research Subject Area: All Subject Areas (15)

Show only Interdisciplinary Case Studies

Impact Global Location: All countries (15)

6,795 ICSs in REF2014
6,637 in the online database

Generating Impact

[see Esther de Smet tomorrow]

Who will benefit if the research works

Engage them... before you start

Involve them in the research design and process

They will pull the Impact...

... rather than you having to push it

HOW do you enable this...

- an impact support / development team...?

Developing Impact

Research

Impact

Evidence

Developing Impact - Research

In theory the research part is simple...

- Academic staff know all about how to do research
- Just remember that it must have been at your HEI

But, going forward

- Think about potential impact whilst doing the research
- Ideally involve 'users' in your research design
- Involve 'users' in the research project
 - Dissemination / briefings / ...
 - Workshops (feedback options) / e-fora / ...
 - Steering groups / ...
 - Active participants
 - Research partners

Developing Impact - Impact

In general academic staff don't generate impact

- They enable others to do; but
- Sometimes they do (eg company spinout, ...)

Whilst it is not required for academics to be involved

- It can strengthen the impact (and future research), through feedback
- It makes it easier to gather evidence of the impact

Academics are good at academic dissemination

- Many are good at wider dissemination
- Some are good at engagement with third parties
- A few are good at other forms of impact generation

Central support structures? **[Esther]**

Developing Impact - Routes

Assuming that pathways to impact are not built in

- How do you get your research noticed?

Academic dissemination

- Does not in general lead to (REF) impact

Wider dissemination

- Can lead to impact; but how do you gather the evidence?

Engagement with third parties

- Implies an active dialogue; remember to gather evidence!
- Small changes (to the research) can gather better evidence

Impact Generation

- A multitude of forms; eg policy development spinout, ...

Developing Impact

– Wider Dissemination

Non-academic articles (eg trade journals)

Exhibitions / Performances / ...

Media appearances (newspaper, radio, TV, ...)

Blog posts

Social media

“get out there and be known”

Developing Impact – Engagement

Media appearances – with phone in / feedback / ...

Exhibitions / Performances – elicit feedback

Blog posts – with comments, develop a ‘community’

Social media – with comments, a community

“get out there and be known”

AND

record the engagement of others

- and critically...

The effect on others

- “Did this change your perception of...”

Developing Impact – Impact Generation

Working with/for a company

- Or perhaps junior researchers from the group

Being on a group that develops a new policy

- And record the effects of the enactment of the policy

Working with a patient / clinician group with an intervention

- And recording the effect of the intervention

Running a large public event / cultural activity

- And recording the effect on attendees (and the economics!)

Being a consultant to input into an innovation

- And gather evidence of the impact of the innovation

...

Developing Impact – Encapsulating

Once you have the evidence for the impact you can:

Describe the impact

Contextualise it

“Sell it”

Consider using a professional to help write the Case Study

At the very least have it read by (many) others

To Reiterate

Engage with stakeholders

Messages are key (~ sound bites)

Translate documents (into plain English)

Look for paths and court relationships!

Don't 'cold call'; engage from the start

Don't assume that the value you see in the work is shared/seen by the audience

Push the messages out, monitor the effect, capture evidence!

Make work visible but don't assume 'available' means 'accessed'

Pathways (activities)

What do the activities contribute to achieving impact?

Who engages / benefits?

What changes because of the activity?

Could you modify the activities to make them more 'impactful'

- Audience, follow up, format....

How can you collect evidence?

Pathways - consider

Media and social media

- Getting known, engaging audience, having a voice
- Contributing to sector dialogue (conferences, commentaries)

Knowledge transfer

- Drawing on other models of 'communicating and developing' academic work

Tracking and capturing impact

Evidence of impact = required

Type of evidence of impact = dependent upon type of impact

Requires continued link/follow up with users

Requires ongoing tracking of work being:

- Noticed / referenced
- Adopted / used ...
- ... And then those things being used

Store evidence in a reliable (and easy to use) place

- Surely your HEI has one?

Itemise impact on your CRIS

- Maybe your HEI has one that supports impact case studies?

Examples of evidence

Citations in policy documents, professional guidance, commercial reports...

Service reports/feedback

Sales figures from company

Testimonials

Something that **PROVES** there has been a change

Be wary of ephemeral evidence (eg webpages, tweets)

....in Summary

Build in impact from the start

Translate “Impact”

Engage Academics

- Behaviour change, embed, deal with suspicion...

Engage Stakeholders

Build networks (internal and external)

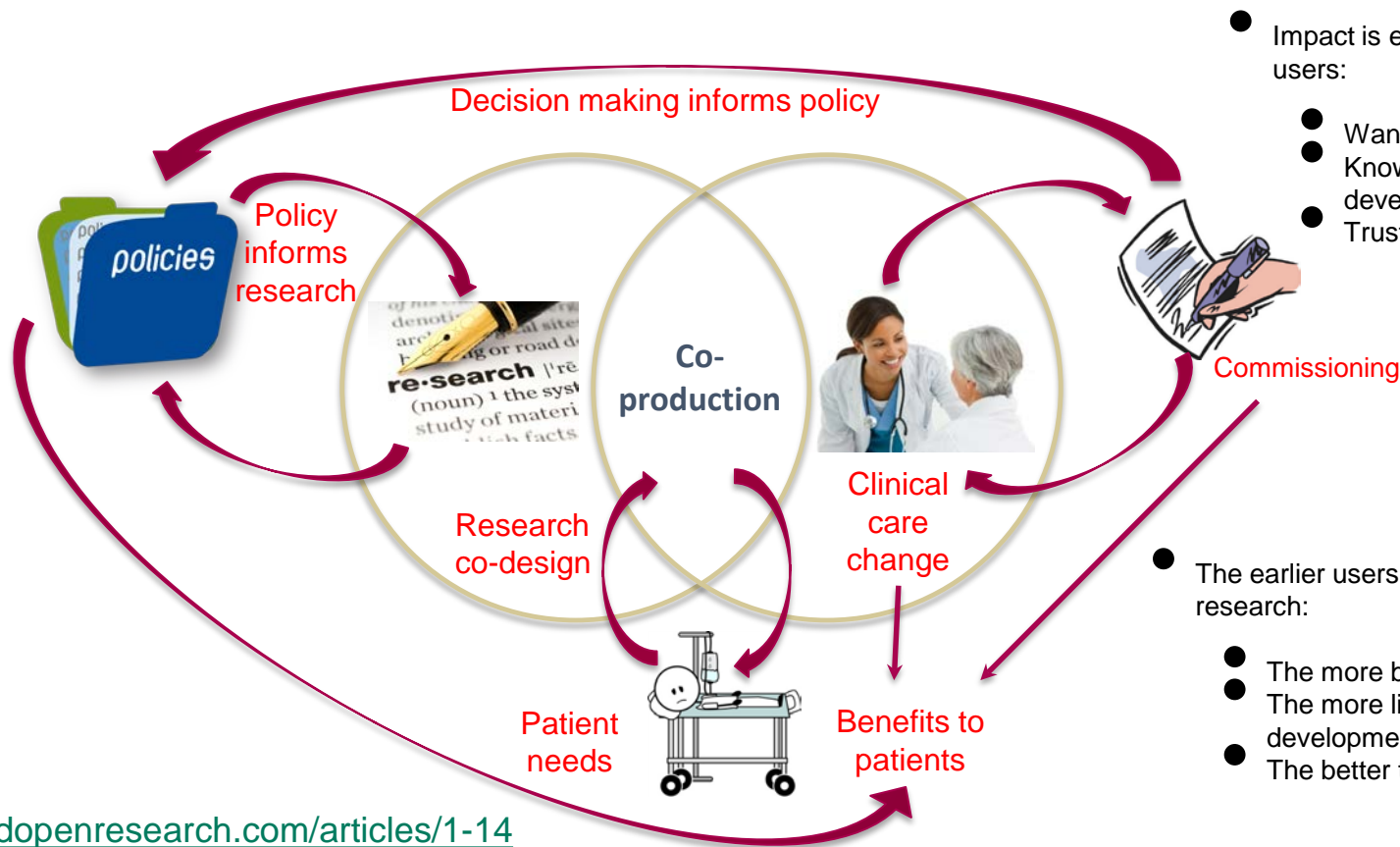
Bridge academic / research support divide

Thanks to Dr Julie Bayley for the University of Lincoln Slides

Summary impact development thoughts...

1. What does your impact **currently** look like?
2. What partners / avenues for impact do you already have?
3. How could you grow these?
 - *Scale, reach, depth, national/international, translations, new audiences.....*
4. What impact do you want to see as a result of your work?
 - *e.g. types of impact, effects, changes, measures, evidence....*

Co-Design → Knowledge Mobilisation → Better chance for evidence collection!



- Impact is easier if the end users:
 - Want the development
 - Know about the development
 - Trust the development

- The earlier users are involved in research:
 - The more buy-in there is
 - The more likely the development will help
 - The better the impact will be

<https://emeraldopenresearch.com/articles/1-14>

Bayley & Phipps

Information Infrastructure



- CRediT: <http://credit.niso.org/>

Contributor role	Role definition
Conceptualization	Ideas; formulation or evolution of overarching research goals and aims.
Methodology	Development or design of methodology; creation of models
Software	Programming, software development; designing computer programs; implementation of the computer code and supporting algorithms; testing of existing code components.
Validation	Verification, whether as a part of the activity or separate, of the overall replication/reproducibility of results/experiments and other research outputs.
Formal analysis	Application of statistical, mathematical, computational, or other formal techniques to analyze or synthesize study data.
Investigation	Conducting a research and investigation process, specifically performing the experiments, or data/evidence collection.
Resources	Provision of study materials, reagents, materials, patients, laboratory samples, animals, instrumentation, computing resources, or other analysis tools.
Data Curation	Management activities to annotate (produce metadata), scrub data and maintain research data (including software code, where it is necessary for interpreting the data itself) for initial use and later reuse.
Writing – original draft preparation	Creation and/or presentation of the published work, specifically writing the initial draft (including substantive translation).
Writing – review and editing	Preparation, creation and/or presentation of the published work by those from the original research group, specifically critical review, commentary or revision – including pre- or post-publication stages.
Visualization	Preparation, creation and/or presentation of the published work, specifically visualization/data presentation.
Supervision	Oversight and leadership responsibility for the research activity planning and execution, including mentorship external to the core team.
Project administration	Management and coordination responsibility for the research activity planning and execution.
Funding acquisition	Acquisition of the financial support for the project leading to this publication.

Who did what... if extended past articles could be useful for evidencing impact!?

Top next steps

<https://www.kcl.ac.uk/policy-institute/assets/ref-impact.pdf>

Read REF impact report

Explore the REF impact case study database

Map impact of your work

- Existing, likely, aspirational
- Partnerships, beneficiaries
- Sketch draft case studies

Review your media / social media / public engagement strategies

Think about how to transfer / translate knowledge

Consider how your work links with others

Peer review each other: 'fresh eyes'



Impact Resources

Laura Tucker: <https://www.vertigoventures.com/>

Charlie Rapple: <https://info.growkudos.com/>

Julie Bayley: <https://juliebayley.blog/>

Mark Reed: <https://www.fasttrackimpact.com/>

Jonathan Grant: <https://researchfish.com/blog/demonstrating-impact/>

David Phipps: <https://www.knaer-recrae.ca/index.php/knowledge-hub/kmb-blog/9-tips-from-the-experts/650-global-perspectives-on-research-impact>

Tamika Heiden: <https://www.researchimpactacademy.com/>

Gavin Reddick: <https://researchfish.com/>

November 5, 2020

[November 25th Webinar Recording]
Demonstrating Impact – Are we doing enough?



Demonstrating Impact

Impact Case Studies

Evidence, Evidence, Evidence

- Vertigo Venture



- Grow Kudos

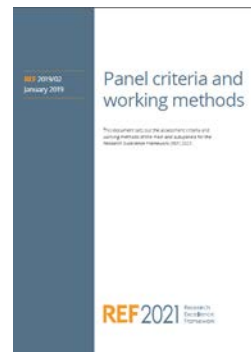


Example Types: Social Welfare

A beginner's guide to evaluating social return on investment (SROI) can be found here:

<http://www.socialvalueuk.org/resource/guidance-on-starting-out-on-sroi-2/>

- Documented evidence of changes to social policy.
- Measures of improved social equality, welfare or inclusion.
- Citations in campaign literature (e.g. leaflets).
- Evidence of public debate in the media or other fora being influenced by the research.
- Documented evidence of increased social inclusion (e.g. participation figures).
- Testimonials from civil society groups and policymakers.



<https://www.ref.ac.uk/publications/panel-criteria-and-working-methods-201902/>

Example Types: Public Policy

- Documented evidence of use in policy debate (e.g. at a parliamentary Select Committee, material produced by NGOs).
- Citation in a public discussion, consultation document or judgement.
- Evidence of citation in policy, regulatory, strategy, practice or other documents.
- Direct citations of research in parliamentary publications such as Hansard, committee reports, evidence submissions, or briefings.
- Acknowledgements to researchers on webpages, in reports or briefings.
- Evidence of influence on a debate in public policy and practice through membership of or distinctive contributions to expert panels and policy committees or advice to government (at local, national or international level).
- Quantitative indicators or statistics on the numbers of attendees or participants at a research event, or website analytics for online briefings.
- Qualitative feedback from participants or attendees at research events.
- Data to show close working relationships with members or staff. For example, the number of meetings held, minutes from these meetings, membership of working groups, co-authoring of publications.
- Testimonials from members, committees or officials, where available.



<https://www.ref.ac.uk/publications/panel-criteria-and-working-methods-201902/>

Example Types: Public Policy [cont]

- Documented evidence of influence on guidelines, legislation, regulation, policy or standards.
- Documented evidence of changes to public policy, legislation, regulations or guidelines.
- Analysis by third-party organisations of parliamentary proceedings or processes, for example studies of the passage of particular pieces of legislation.
- Documented evidence of changes to international development policies.
- Evidence of use of process/technology.
- Measures of improved public services, including, where appropriate, quantitative information; such information may relate, for example, to the quality, accessibility or cost-effectiveness of public services.
- Measures of improved inclusion, welfare or equality.
- Satisfaction measures (e.g. with services).
- Formal partnership agreements or research collaboration with major institutions, NGOs and public bodies. Consultancies to public or other bodies that utilise research expertise.
- Evidence of engagement with campaign and pressure groups and other civil organisations (including membership and activities of those organisations and campaigns) as a result of research.
- Documented evidence of changes to international development policies.
- Measures of improved international equality, food security, welfare or inclusion.



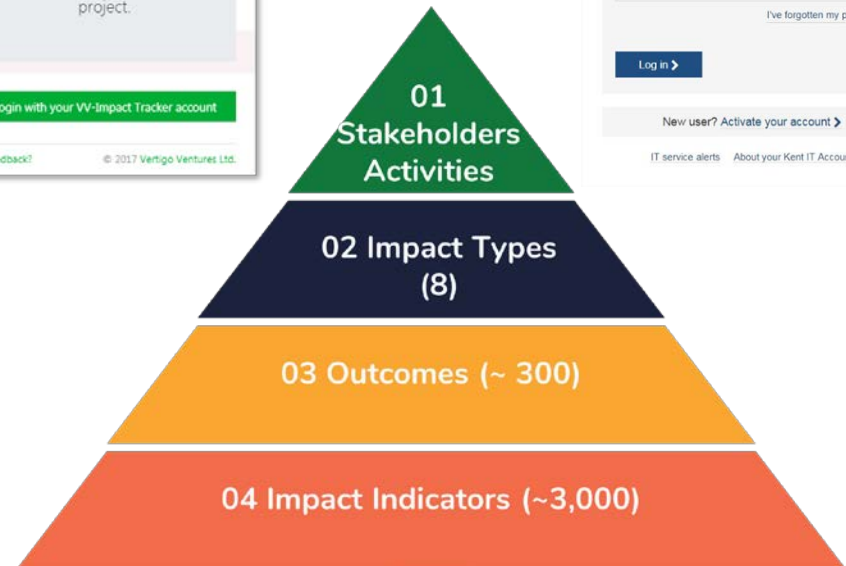
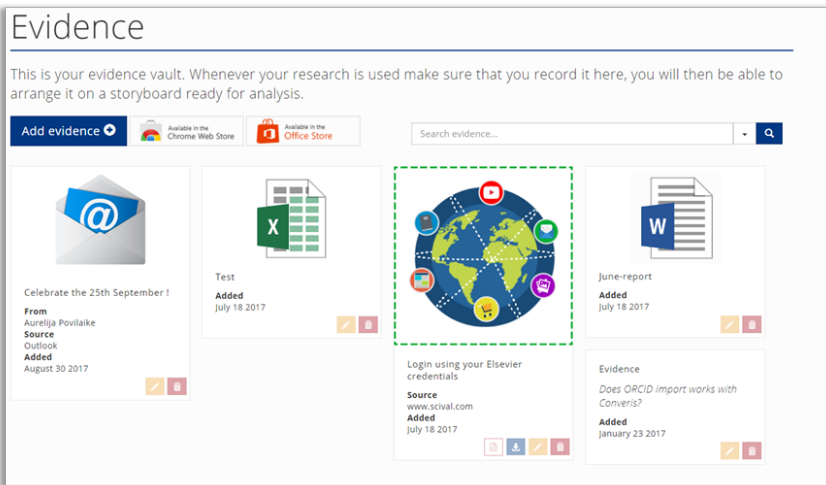
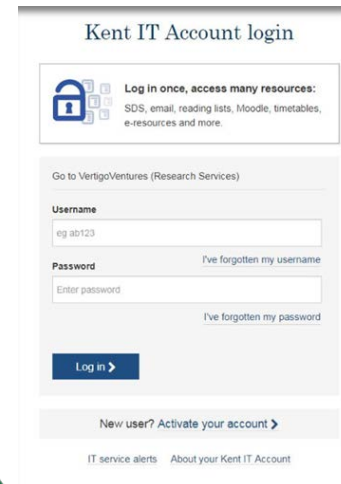
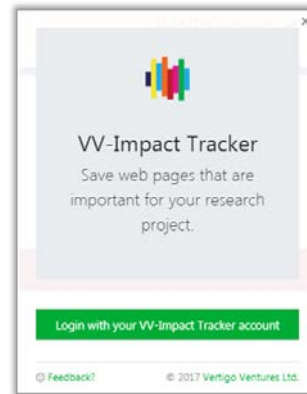
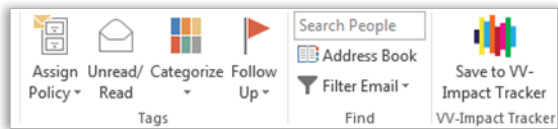
<https://www.ref.ac.uk/publications/panel-criteria-and-working-methods-201902/>

Evidence for Impact

- VV Impact Tracker



<https://www.vertigoventures.com/impacttracker/>



Levering Impact...

Impact Case Studies

attract students

attract staff

attract donors [philanthropy]

attract ... attention

→ enhances impact

→ more impact

Levering Impact...

Website

<https://www.kent.ac.uk/research>

<https://research.kent.ac.uk/impact/>



Videos

<https://research.kent.ac.uk/impact-peru-justice-perea/>

➔ <https://youtu.be/fZbYoBzaSAg>

Social Media

#ThinkKent

Levering Impact ... for Future Funding

Funders are becoming MUCH more interested in Impact

Outputs → ***Outcomes*** → ***Impact***

Show your previous Impact to demonstrate that your current proposal is more likely to have impact.

- Tool for creating NIH Biosketches
 - describe the magnitude and significance of scientific contributions (including publications)
 - provide detailed information about research experience in the context of the proposed project

***Publications are still important...
... but they are not the only thing!***

<https://www.ncbi.nlm.nih.gov/sciencv/>

Résumé for Researchers



- 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?
- How have you contributed to broader society?



This module can include examples of societal engagement and knowledge exchange. It can include engagement with industry and the private sector. It can be used to mention engagement with the public sector, clients and the broader public. It can be used to highlight positive stakeholder feedback, inclusion of patients in processes and clinical trials, and other impacts across research, policy, practice and business. It can be used to mention efforts to collaborate with particular societal or patient groups. It can be used to highlight efforts to advise policy-makers at local, national or international level and provide information through the press and on social media.

<https://royalsociety.org/topics-policy/projects/research-culture/tools-for-support/resume-for-researchers/>

Concluding thoughts

- Why do researchers do research?
- To advance knowledge... to make things “better”
- This is IMPACT ...
- ... but it can take a long time

- Funders want to show the “value” of their research

- The “publics” want to see the “value” of research

- Impact is becoming much better rewarded

- Impact can be planned, but can also be serendipitous
→ Engender an environment to enable/maximize it!

The REF

- Distributes approx. €2Bn a year...
 - For 6-7 years
- Impact Case Studies are 25% of this
 - Lots of caveats... but even so...
- An ICS is worth around €300-400k

REF2021 Research
Excellence
Framework

<https://www.ref.ac.uk/>

Reed, M. and Kerridge, S. 'How much was an impact case study worth in the UK Research Excellence Framework?', *Fast Track Impact Magazine*, Issue 1, Spring/Summer (2017) pp. 47-51.

<https://www.fasttrackimpact.com/post/2017/02/01/how-much-was-an-impact-case-study-worth-in-the-uk-research-excellence-framework>

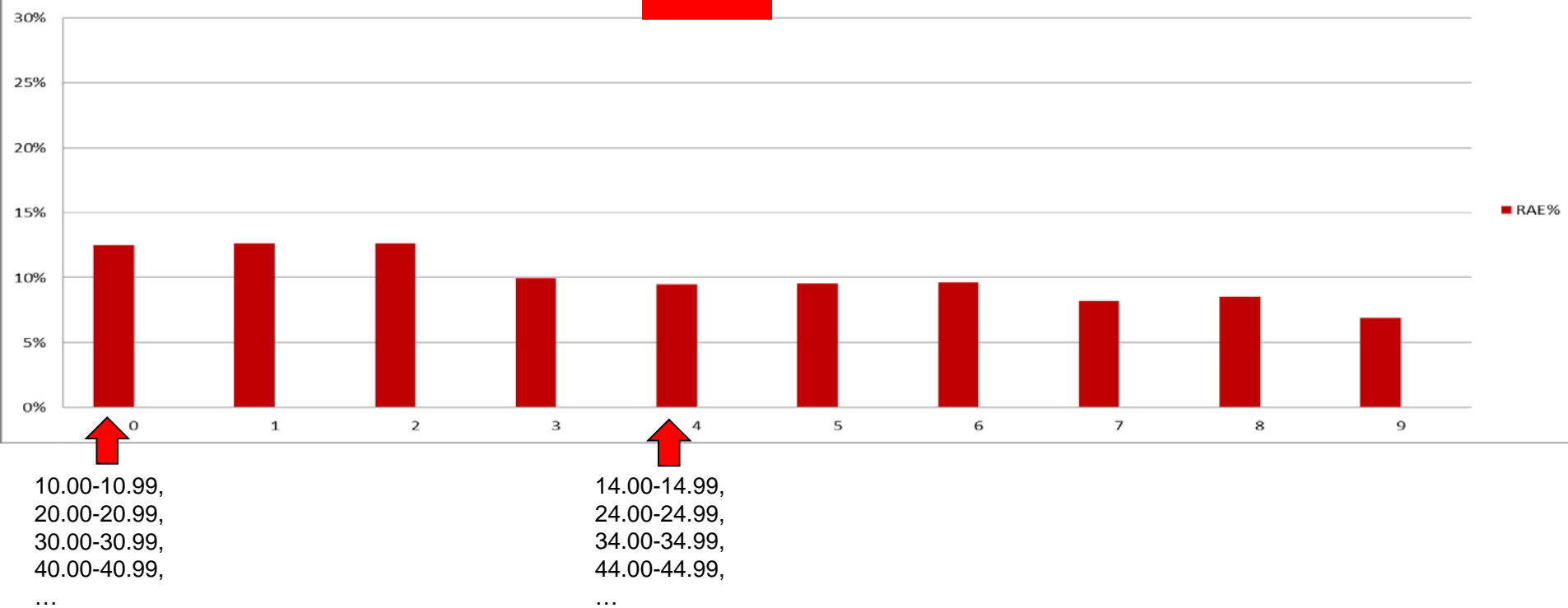
The Impact of Impact Assessment

REF 2014 Gaming

- Stigma of “non submission”, becomes worse with a potential contract change?
- Impact Case Studies thresholds can make a huge difference.
 - 34.99 FTE → 3 ICSs
 - 35.00 FTE → 4 ICSs
 - If you have 35 FTE and a much weaker 4th Case Study... what do you do?
- Conversely, join UOA submissions to share the ICS load
 - (particularly for submissions over 110 FTE – a huge advantage!)
 - 2x 80 FTE submissions need 7 ICSs each
 - 1x 160 FTE submission only needs 10 ICSs
- The ICS Cliff Edge Effect

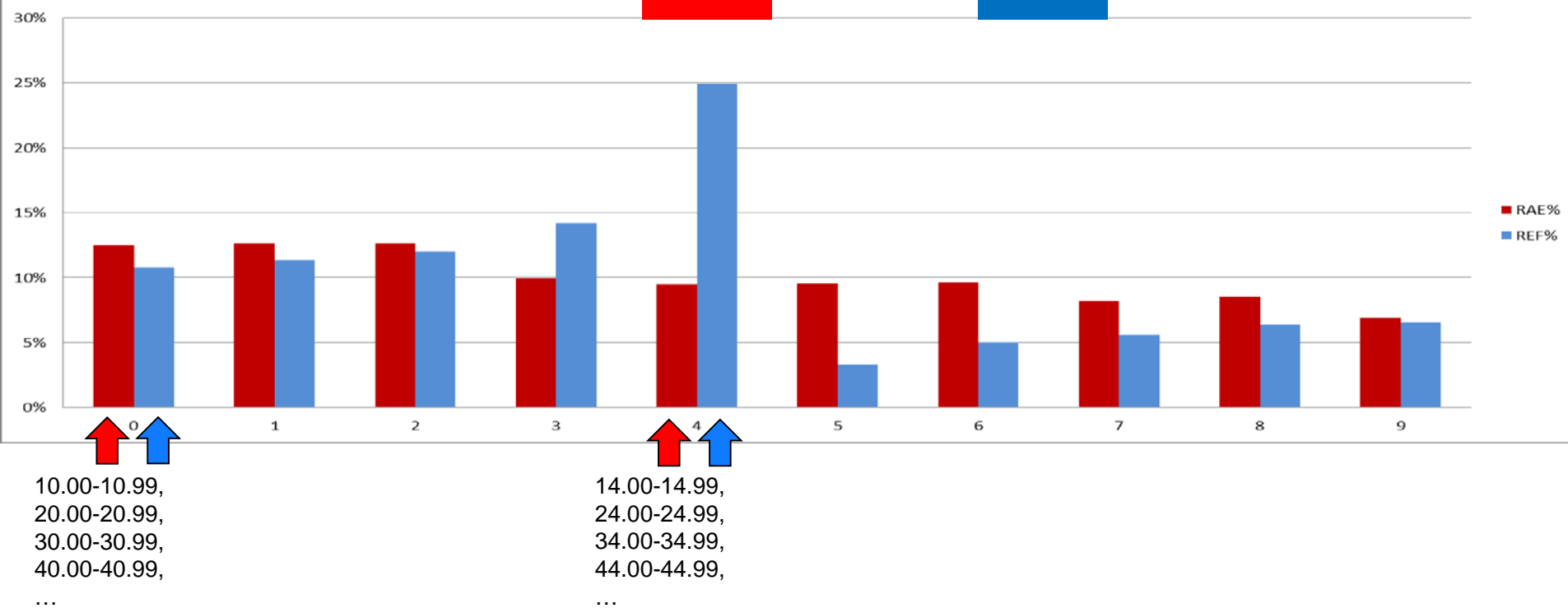
Impact Case Study Threshold

UOA FTE submission sizes $\{\text{INT}(\text{FTE})\text{MOD}10\}$ where $\text{FTE} \geq 10.00$ & < 110.00
RAE2008 (n=1,689)

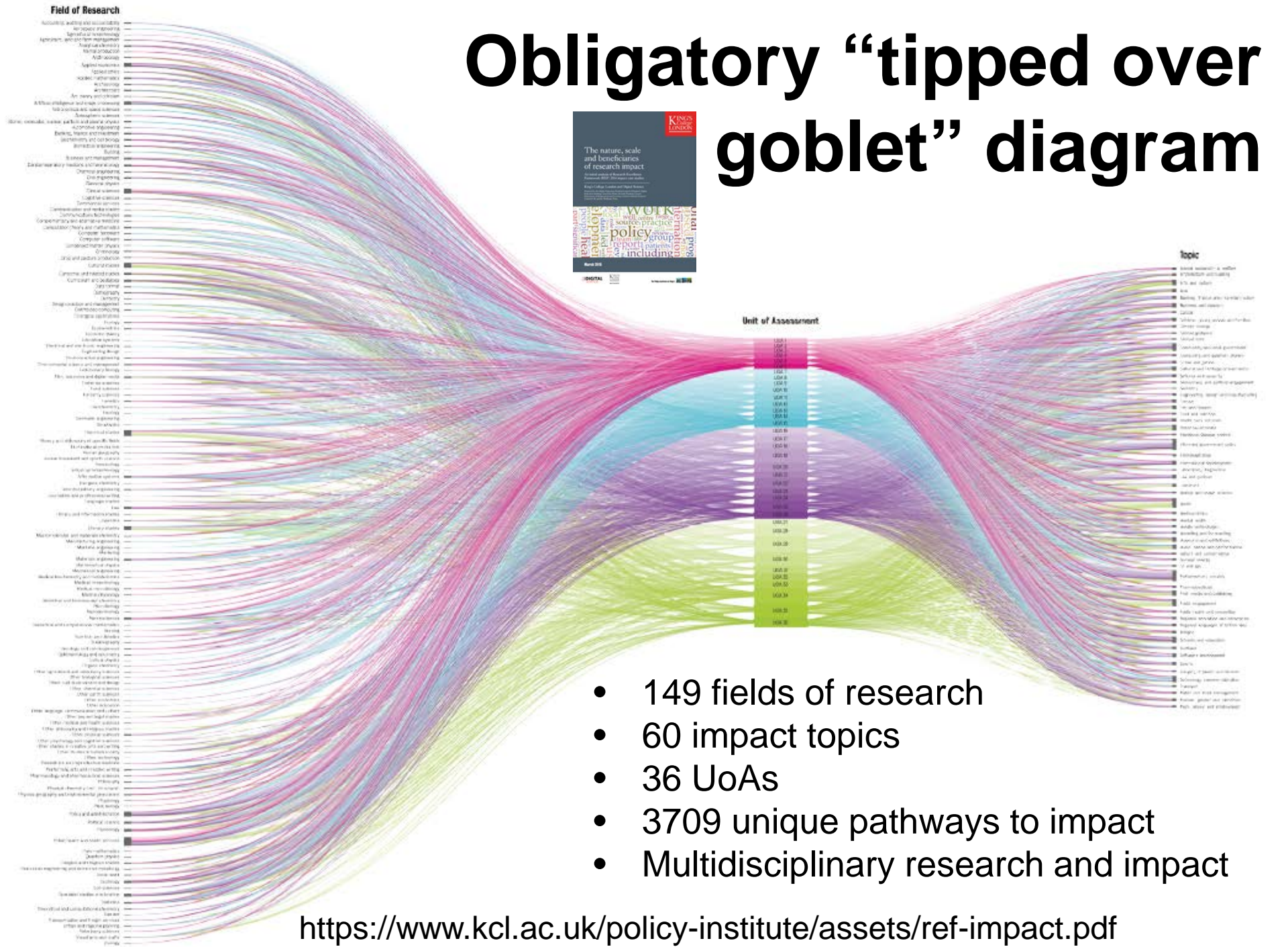


Impact Case Study Threshold

UOA FTE submission sizes $\{\text{INT}(\text{FTE})\text{MOD}10\}$ where $\text{FTE} \geq 10.00$ & < 110.00
Comparison between RAE2008 (n=1,689) and REF2014 (n=1,521)



Obligatory “tipped over goblet” diagram

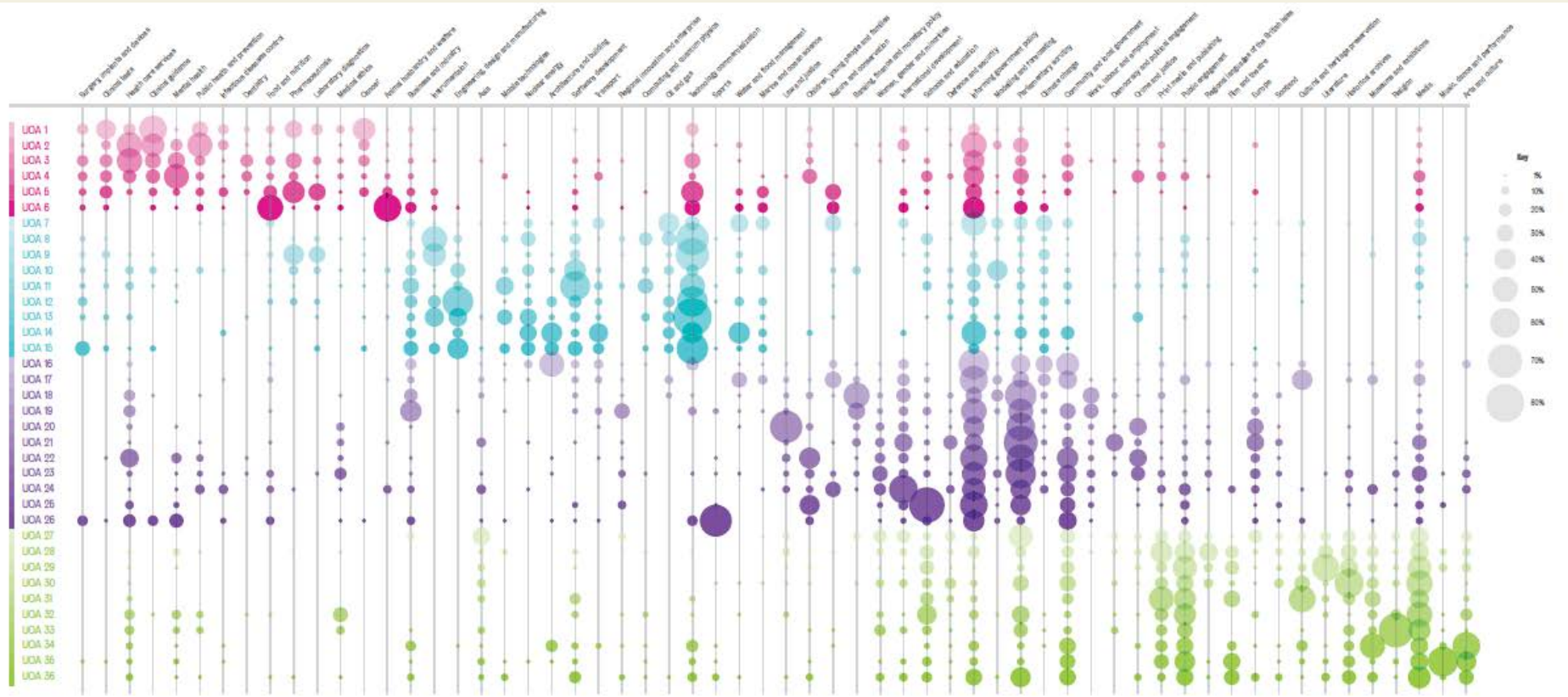


- 149 fields of research
- 60 impact topics
- 36 UoAs
- 3709 unique pathways to impact
- Multidisciplinary research and impact

<https://www.kcl.ac.uk/policy-institute/assets/ref-impact.pdf>

Also pretty diagram (bottom of goblet)

<https://www.kcl.ac.uk/policy-institute/assets/ref-impact.pdf>



- Some topics cut across several UoAs
 - (e.g. **Technology commercialization**, **Informing Government Policy**)



Evidencing Impact... in the future

- Trusted and “complete” infrastructure
- Open
- Semi-automated data collection
- Impact “stories”
- Reward & Recognition

- However...

this is what we said 5 years ago... in the *Metric Tide*



https://responsiblemetrics.org/wp-content/uploads/2019/02/2015_metrictide.pdf



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credit.niso.org/



University of
Kent