AESIS AUTUMN COURSE 2019

Methods and Instruments for Assessing the Societal Impact of Research

6-8 November, London

AESIS
NETWORK FOR ADVANCING & EVALUATING THE SOCIETAL IMPACT OF SCIENCE

uk arma

EARMA
EUROPEAN ASSOCIATION OF RESEARCH MANAGERS AND ADMINISTRATORS

euroCRIS
Current Research Information Systems

KING'S College LONDON

DAY 3

#ASIR19
@AESISNET

WIFI: CLOUD

OVERVIEW OF THE PROGRAMME

Day 1	Introductions
	Defining and assessing Institute's Strengths
	Introduction to the Case Study
	Interactive discussions
Day 2	Integrating impact indicators in strategy
	Preparation Case Study
	Research Information Systems and metrics
	Interactive discussions
Day 3	**Disciplinary differences and conflicting interests**
	Case Study Presentation
	Closing
	Social programme

Integrating impact in a research strategy

Reine Meylaerts
Vice rector Research Policy
at the KU Leuven

Case Study

Final preparations of the Case Study in groups

BREAK

10:30 – 10:45

Case study

Presenting the Case Study for the jury

Reine Meylaerts as 'a visionary rector magnificus'
Martin Kirk as 'a conservative Vice Chancellor of Research'
Simon Kerridge as 'an ambitious City Councillor for Education

Methods and techniques of assessing societal impact

John O'Shea
Associate Director (Creative) at
Science Gallery London

SCIENCE GALLERY

KING'S College LONDON


HELLO!
LIGHT


WHERE
ART AND SCIENCE
COLLIDE
Free entry
SCIENCE GALLERY
KING'S College LONDON
King's College London welcomes
to Science Gallery London
DANNY
supporters

SCIENCE GALLERY LONDON INTRODUCTION

SCIENCE GALLERY LONDON INTRODUCTION

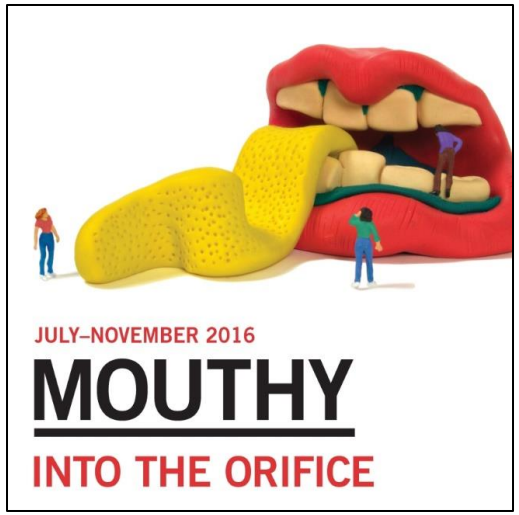

YOUNG BLACK IKEA

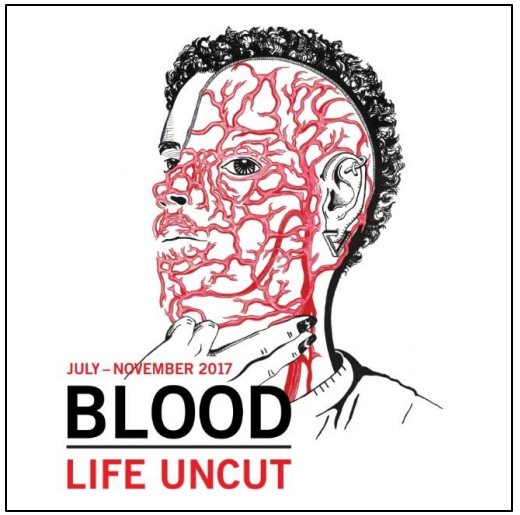
SCIENCE GALLERY LONDON INTRODUCTION

PRE-OPENING

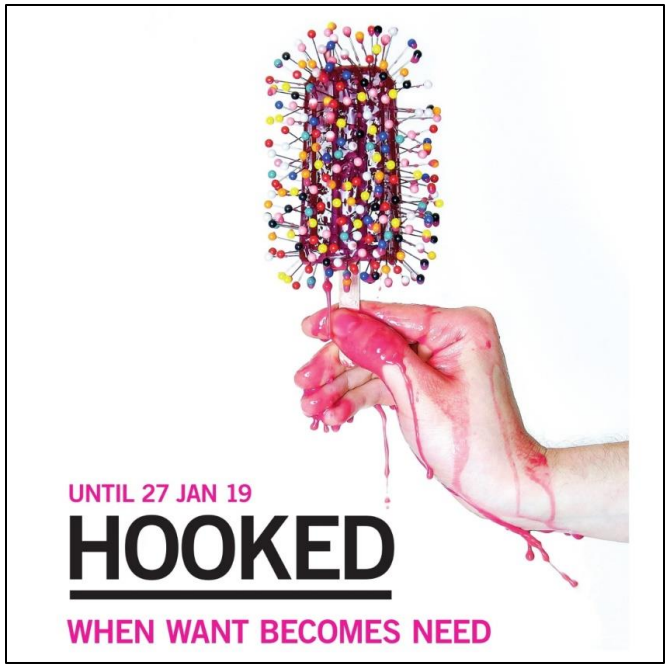

SEPT–OCT 2014
FREQUENCIES
TUNE INTO LIFE

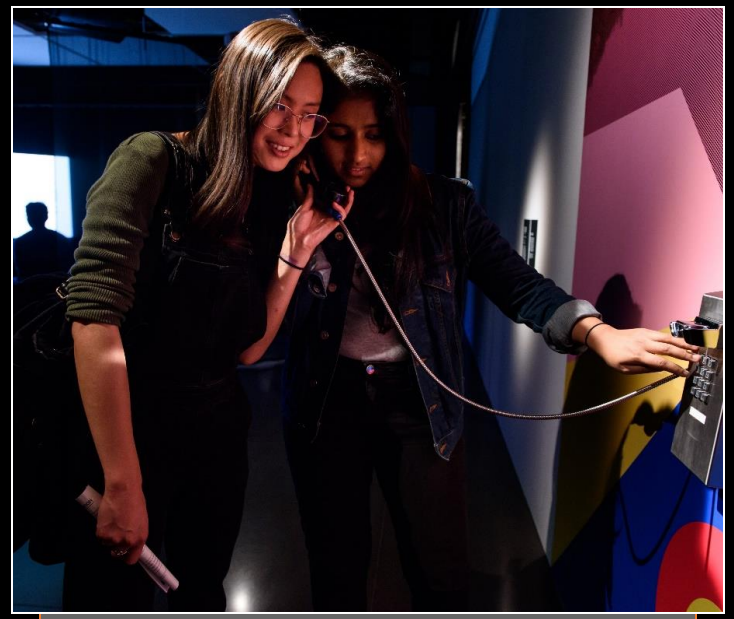

NECK
SIRLOIN
RIBS
BREAST
DRUMSTICK
WING
FLANK
FROM JULY 2015
FED UP
THE FUTURE OF FOOD


JULY–NOVEMBER 2016
MOUTHY
INTO THE ORIFICE


JULY – NOVEMBER 2017
BLOOD
LIFE UNCUT

POST-OPENING





CONNECT

PARTICIPATE

SURPRISE

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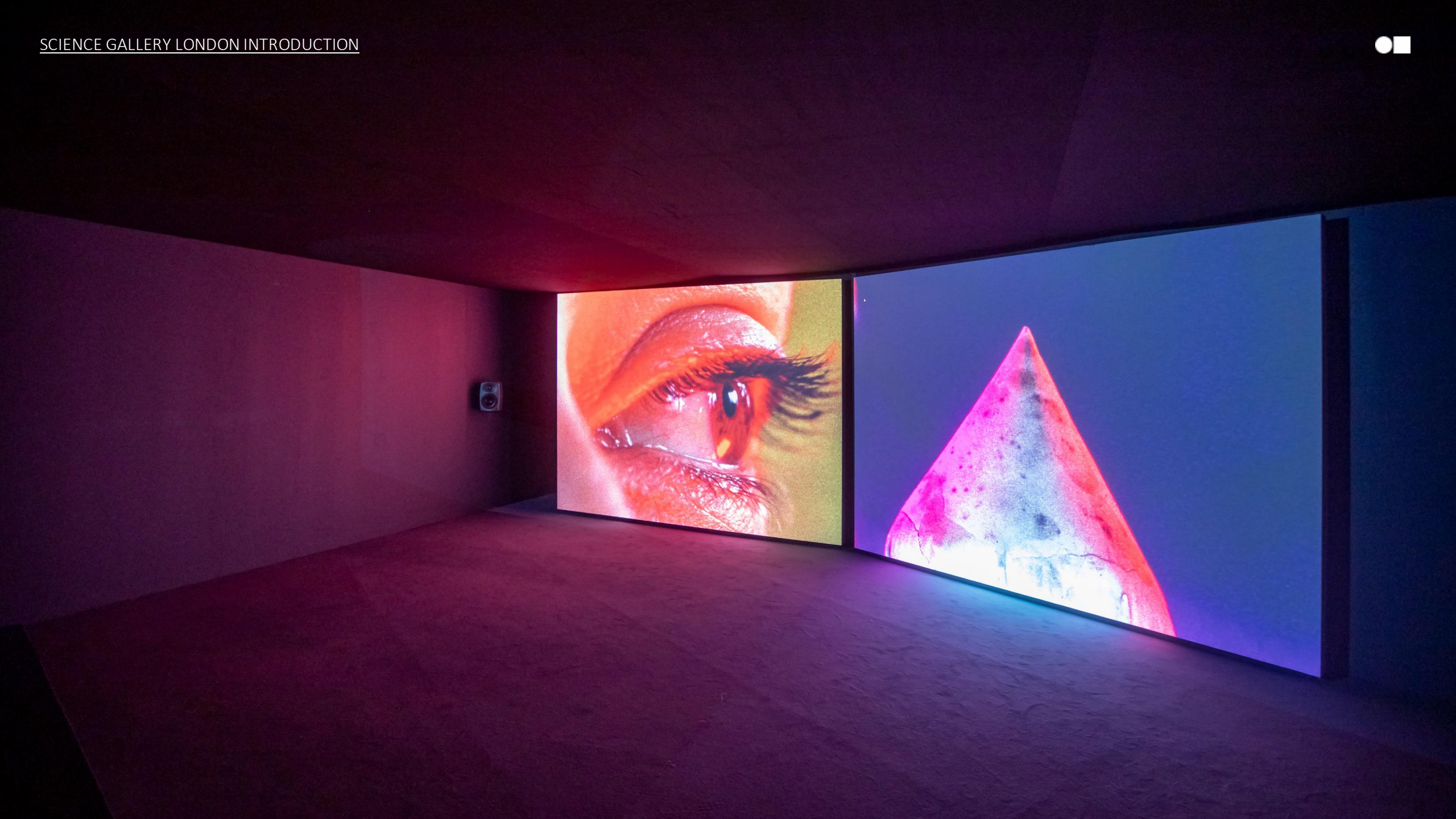

SCIENCE GALLERY

KING'S College LONDON

LUNCH

Please fill in the evaluation form

Optional: walk with us to the Science Gallery for a tour

Thank you!

KU LEUVEN

Integrating impact in a research strategy

Prof. Reine Meylaerts
vicerector for Research
KU Leuven

Content

1. Defining impact

2. Dealing with impact at the university; disciplinary characteristics, attitudes and cultures within the university

3. Research impact and quality assurance

1. Defining impact

Peter Paul Rubens;
in book of
Franciscus Aguilon's
"Opticorum" (1613)

1. Defining Impact

"The duty of intellectuals in society is to make a difference"

Sir Thomas More, shortly before his execution (1535)

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1. Defining Impact

"The duty of intellectuals in society is to make a difference"

Sir Thomas More, shortly before his execution (1535)

Alexander Von Humboldt (1850): "The university's features include a *unity in teaching and research*,

freedom of study for students and

corporate autonomy for universities

despite their being funded by the state."

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1. Defining Impact in University Missions

- “The mission of the University of Cambridge is to contribute to society through the pursuit of education, learning and research at the highest international levels of excellence.”
- [University of California] “The distinctive mission of the University is to serve society as a center of higher learning, providing long-term societal benefits through transmitting advanced knowledge, discovering new knowledge, and functioning as an active working repository of organized knowledge. …”

1. Defining Impact in Mission KU Leuven

- “KU Leuven offers its students an academic education based on high-level research, with the aim of preparing them to assume their social responsibilities.
- KU Leuven is a research-intensive, internationally oriented university that carries out both fundamental and applied research. It is strongly inter- and multidisciplinary in focus and strives for international excellence. To this end, KU Leuven works together actively with its research partners at home and abroad.
- KU Leuven encourages personal initiative and critical reflection in a culture of idea exchange, cooperation, solidarity and academic freedom. It pursues a proactive diversity policy for its students and staff.
- KU Leuven aims to actively participate in public and cultural debate and in the advancement of a knowledge-based society. It puts its expertise to the service of society, with particular consideration for its most vulnerable members.
- From a basis of social responsibility and scientific expertise, KU Leuven provides high-quality, comprehensive health care, including specialised tertiary care, in its University Hospitals. In doing so it strives toward optimum accessibility and respect for all patients.”

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1. Defining Impact
What is our reference framework?

- Mission
- Independent and “as open as possible”
- Research ànd teaching ànd societal engagement
- Mid long and long term research
- Diversity of funding sources for research (governmental/private)
- Diversity in disciplines (particularly at comprehensive universities)
- Diversity of stakeholders (citizens, governmental organisations, societal interest groups, students, industry….)

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1. Defining Impact

=

+ a definition

+ principles

+ process

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1. Defining Impact
= a definition + principles + process

- [REF Research Excellence Framework UK]: Impact is defined as ‘any effect on, change or benefit to economy, society, culture, public policy or services, health, the environment or quality of life, beyond academia.’
- [ESF European Science Foundation: Impact can be described as consequences of an action that affects people’s lives in areas that matter to them
- [KNAW – Academy NL]: (translated) The contribution on short and long term of scientific research to changings in development of societal sectors and societal challenges

1. Defining Impact
= a definition + principles + process

- *Principles [Mertonian Norms]:*
  - **communism**: all scientists should have common ownership of scientific goods (intellectual property), to promote collective collaboration; secrecy is the opposite of this norm.
  - **universalism**: scientific validity is independent of the sociopolitical status/personal attributes of its participants
  - **disinterestedness**: scientific institutions act for the benefit of a common scientific enterprise, rather than for the personal gain of individuals within them
  - **organized scepticism**: scientific claims should be exposed to critical scrunity before being accepted: both in methodology and institutional codes of conduct.

1. Defining Impact
= a definition + principles + process

- Definition [REF]: “Impact is defined as ‘any effect on, change or benefit to economy, society, culture, public policy or services, health, the environment or quality of life, beyond academia.”
- *Principles [Mertonian Norms]: “communism; universalism; disinterestedness; organized scepticism”*
- *Process*
  A. *Bottom up >< societal challenges*
  B. *Improving ongoing research (not changing our research!)*
  C. *Assessment : who to decide? Criteria?*

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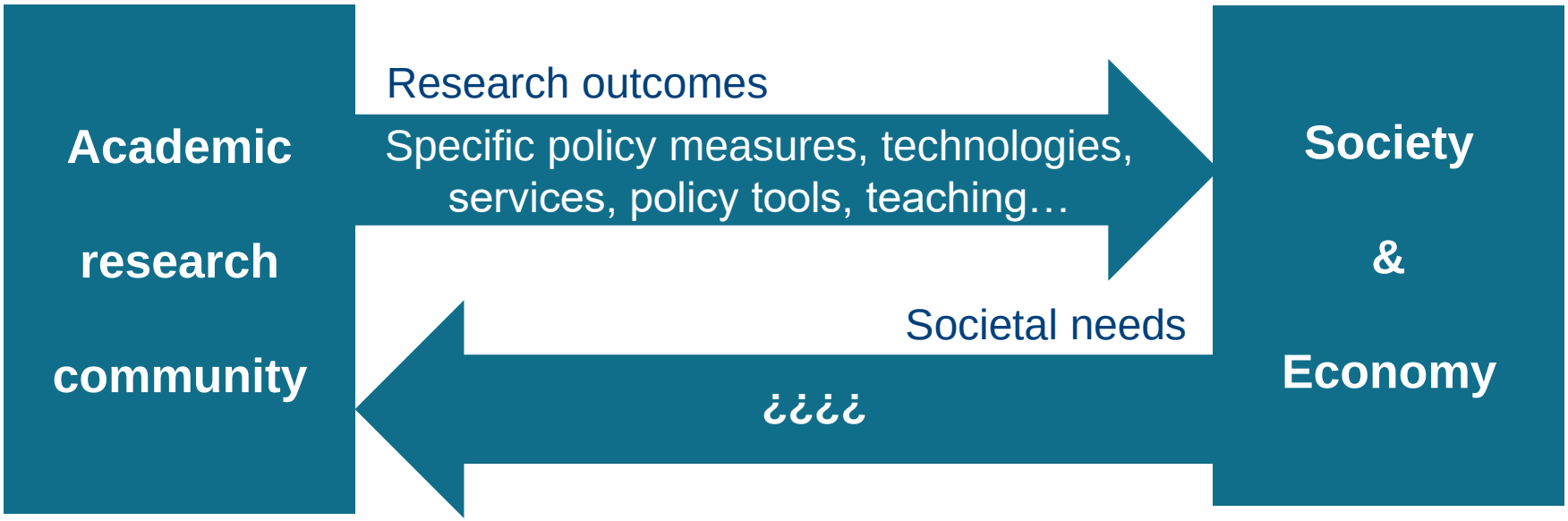
1. Defining Impact
A. Bottom up >< societal challenges

- Universities have internal structures to make research outcomes available for society (dedicated activities, tech transfer office, websites, etc..
- *Otherwize: structures for 'inducing' (indirect steering) research activities based on societal concerns are rather exceptional*



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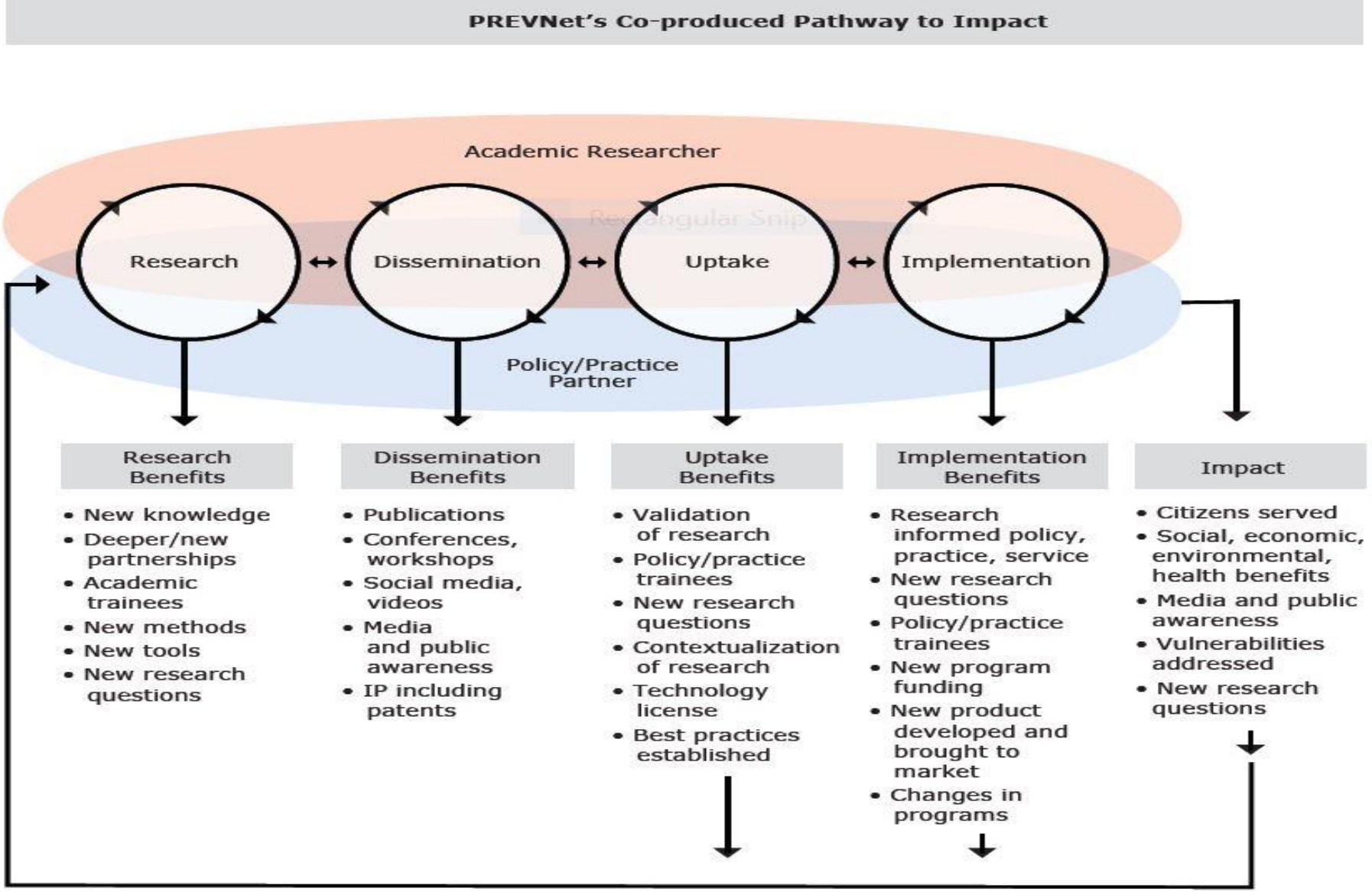

Phipps, D.J., Cummings, J. Pepler, D., Craig, W. and Cardinal, S. (2016) The *Co-Produced Pathway to Impact* describes Knowledge Mobilization Processes. *J. Community Engagement and Scholarship,* 9(1): 31-40.

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1. Defining Impact
B. Improving >< not changing research

- Researchers may receive valuable feedback from their stakeholders = useful for future research; may improve methodology, effectiveness, efficiency….
- The research process is still ‘bottom up’: the researcher decides
- In line with ‘Open Science’ approach

➢ NOT: implementing an impact policy should NOT have the objective to create a shift towards more application oriented academic research

1. Defining Impact
C. Assessment : who to decide? Criteria?

- Who:
  - Researchers within their labs/ research group
  - Assessments at all levels within the university (personal, group, project assessments, e.o.)...

- Criteria:
  - To be defined per (big) domain at ‘academic level’ (within the universities or inter-university research councils)
  - Assessments by panels of experts no politicians

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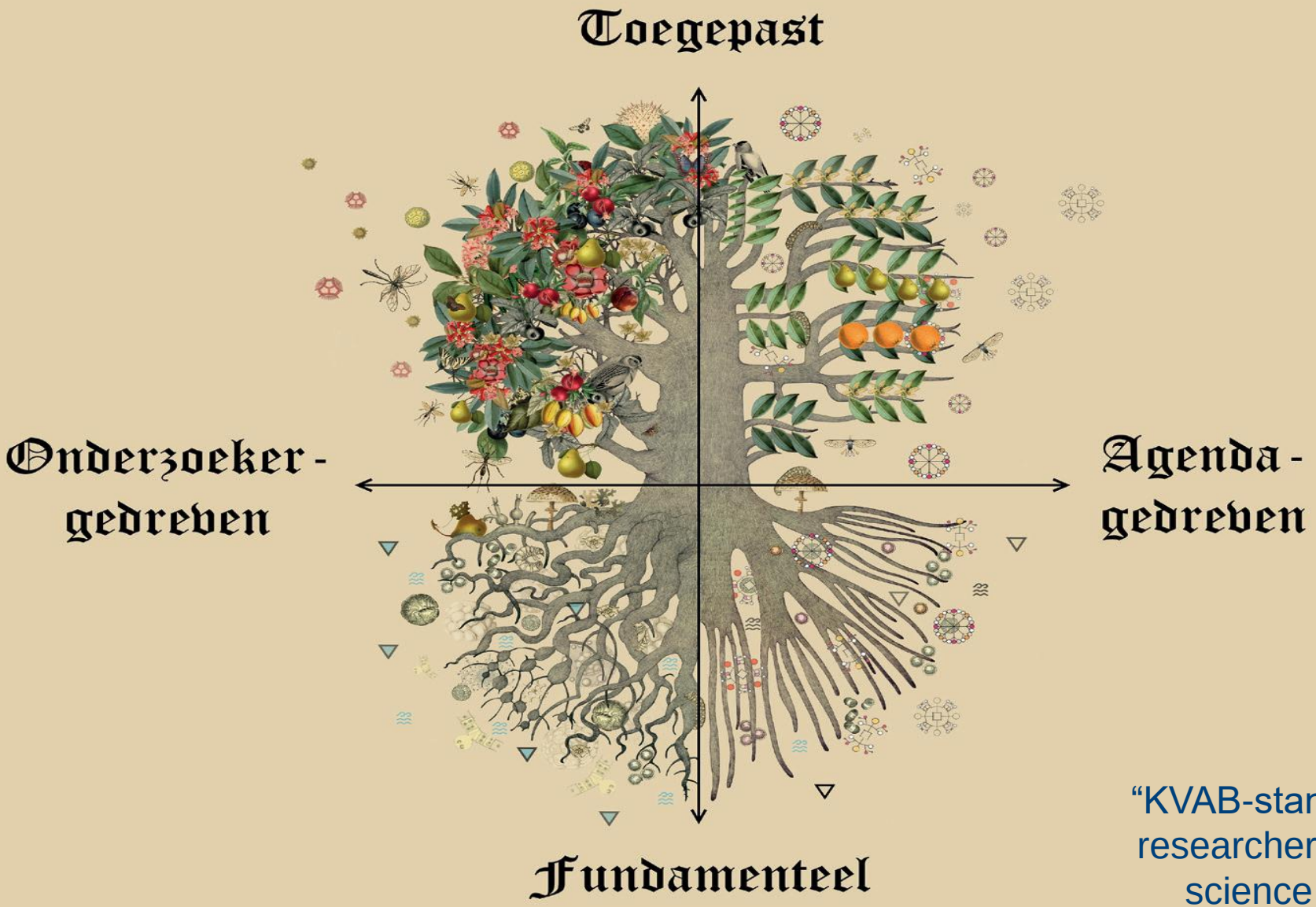
2. Dealing with impact



"KVAB-standpunt" researcher-driven science (2018)

2. Dealing with impact

disciplinary characteristics, attitudes and cultures within the university

Universities should:

- "Embrace the societal impact agenda// *fully compatible with their missions* of knowledge creation and transmission"
- "promote societal impact as a *dynamic, open and networked process* in a culture of sustained engagement and coproduction of knowledge"
- "*engage with others*…. to develop future oriented policies and implement innovative practices…"
- "*open explicit and transparent reward systems* that include all kinds of impact, reward it and take into account for individual promotion"

Source: LERU position paper 2017: Wiljan Van den Akker, Jack Spaapen; "Productive interactions: societal impact of academic research in the knowledge society"

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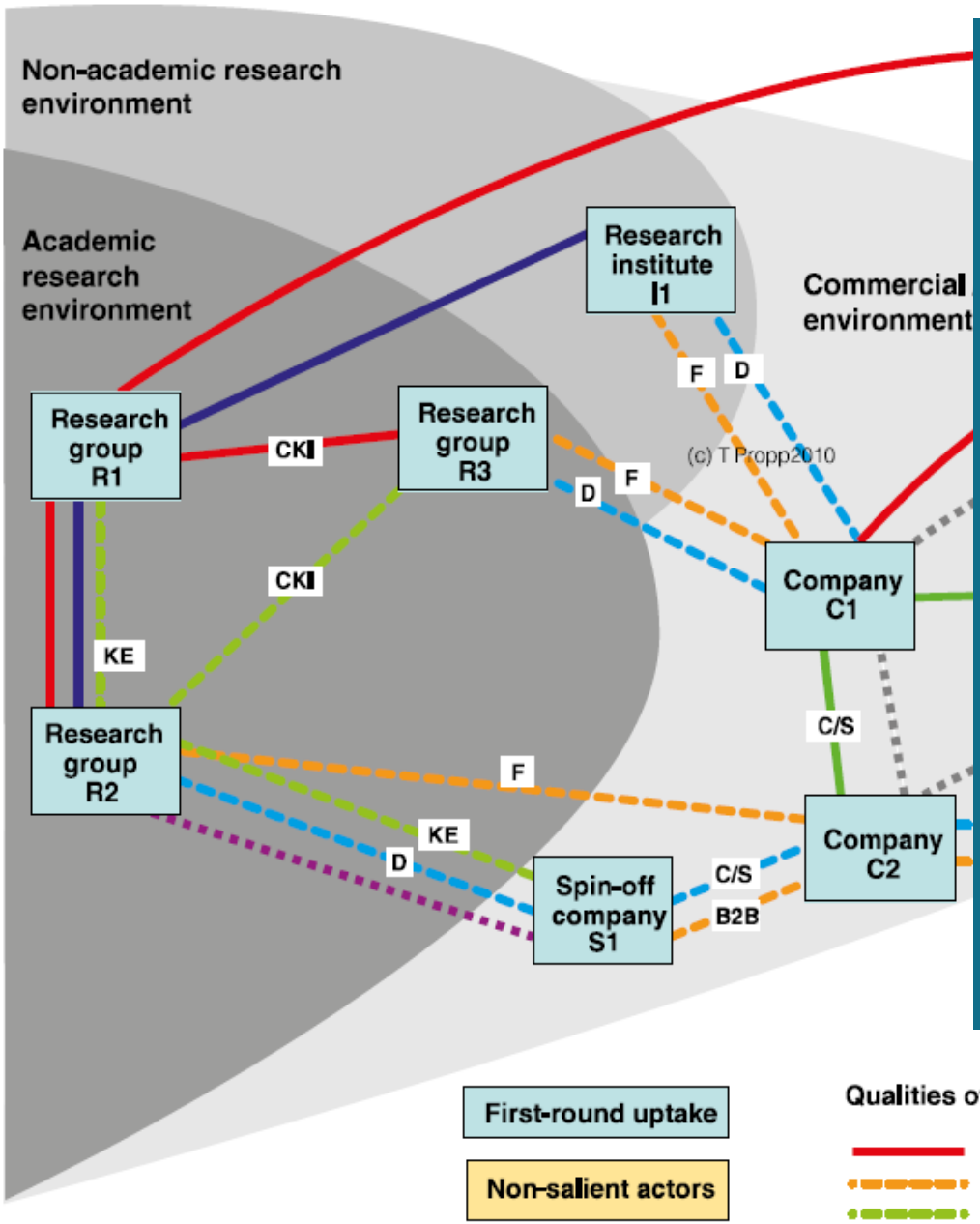


In the past:
Focus on 'first-round'-uptake:

- Starting with specific knowledge (full blue line)
- of direct importance for funding (orange dashed lines)
- Supported by TTO-offices (for technologies and services)

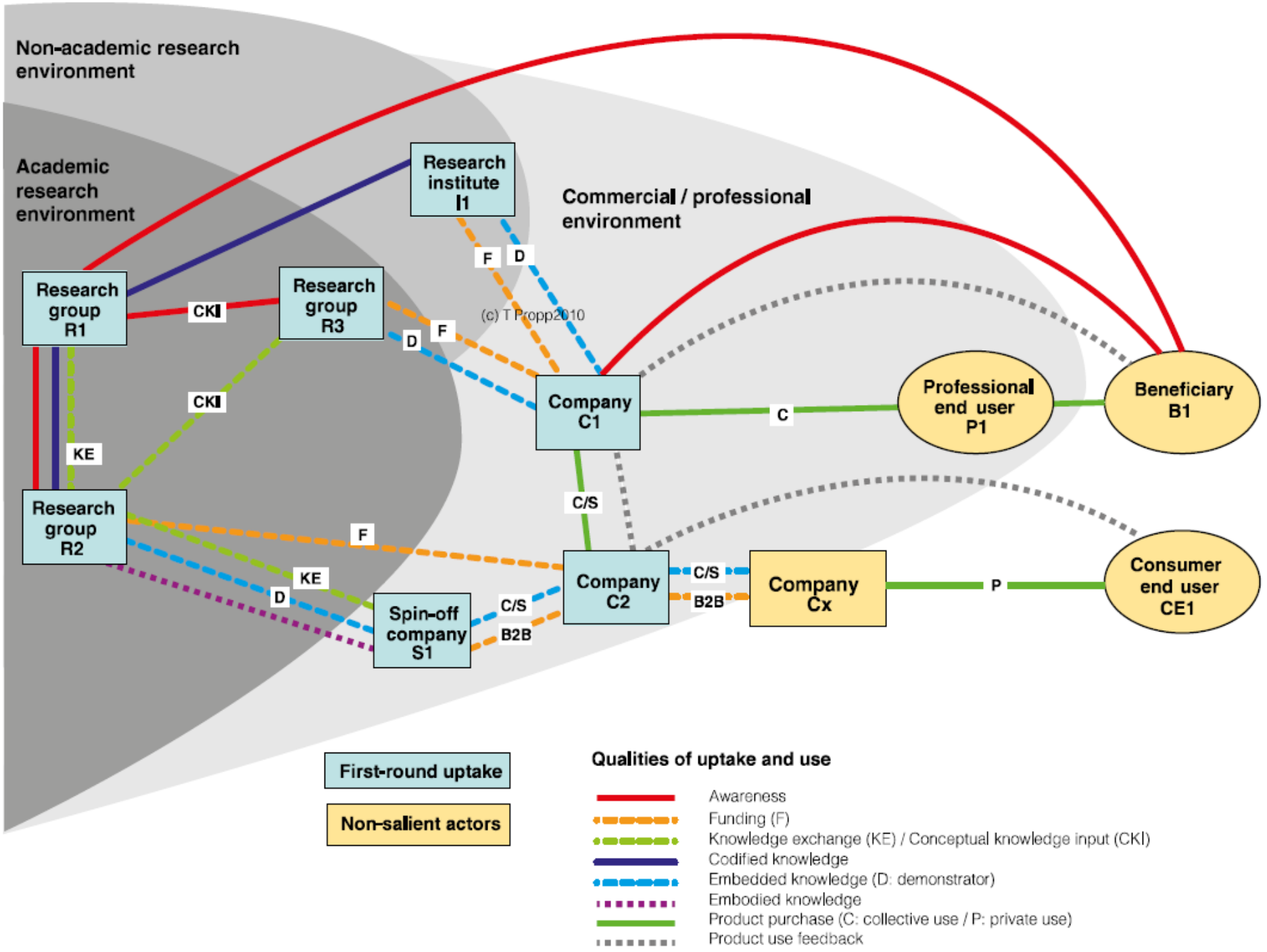
Transition to impact culture……

First-round uptake

Non-salient actors

Qualities of uptake and use

- Awareness
- Funding (F)
- Knowledge exchange (KE) / Conceptual knowledge input (CKI)
- Codified knowledge
- Embedded knowledge (D: demonstrator)
- Embodied knowledge
- Product purchase (C: collective use / P: private use)
- Product use feedback


Non-academic research environment
Academic research environment
Commercial / professional environment
Research institute I1
Research group R1
Research group R3
Research group R2
Company C1
Company C2
Company Cx
Spin-off company S1
Professional end user P1
Beneficiary B1
Consumer end user CE1
CKI
CKI
KE
KE
F
F
F
D
D
D
C/S
C/S
C/S
B2B
B2B
C
P
(c) T Propp2010
First-round uptake
Non-salient actors
Qualities of uptake and use
Awareness
Funding (F)
Knowledge exchange (KE) / Conceptual knowledge input (CKI)
Codified knowledge
Embedded knowledge (D: demonstrator)
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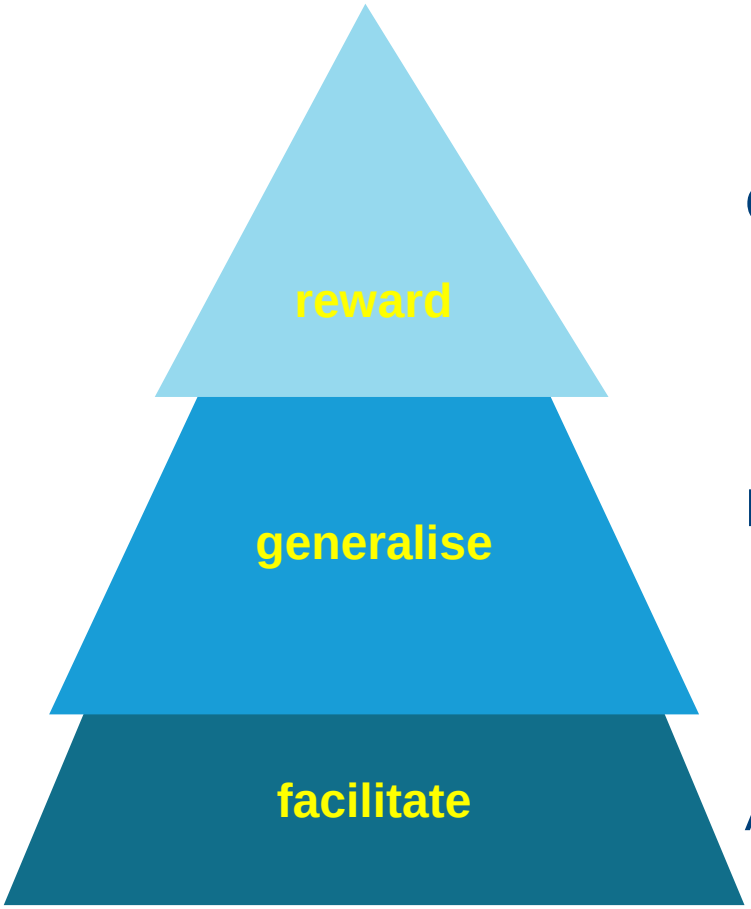
2. Dealing with impact

disciplinary characteristics, attitudes and cultures within the university



C. Make it rewarding by integrating impact criteria in assessments

B. Make the impact-approach acceptible for the whole research community

A. Make the impact approach easy by informing and coaching

2. Dealing with impact

versus the external environment of university research ….

- National funding programmes; often focusing on specific (societal) challenges
- European Missions within Horizon Europe

Mission-oriented approach in **Horizon Europe** to

- Make it easier for citizens to understand the investments in research and innovation
- Increase the impact of investments when addressing global challenges

Policy-makers must ensure that **missions respond to the perceived social demands** and respond to the needs of the citizens

- Decision-making **no more a prerogative** of the establishment
- **New demand for further participation in policy-making** from citizens

2. Dealing with impact

versus the external environment of university research ….

- National funding programmes; often focusing on specific (societal) challenges
- European Missions within Horizon Europe
- United Nations Sustainable Development Goals (SDGs)

How do the SDGs help universities?

Create increased demand for SDG related education

Provide a comprehensive and globally accepted definition of a responsible university

Offer a framework for demonstrating impact

Create new funding streams

Support collaboration with new external and internal partners

Knowledge

Learning

Demonstration

Impact

Collaboration

How do universities help the SDGs?

Provide knowledge, innovations and solutions to the SDGs

Create current and future SDG implementers

Demonstrate how to support, adopt and implement SDGs in governance, operations and culture

Develop cross-sectoral leadership to guide the SDG response

Source:
Sustainable Development Solutions Network (SDSN);
"Getting started with SDGS in universities
–
A guide for universities and Higher Educaton Institutions, Australia; 2017"

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2. Dealing with impact & disciplines @ KU Leuven

- Nature of academic research
  - ‘fundamental’ : with high degree of “disinterestedness”
  - scientific impact
  - societal (incl. economic; cultural) impact
  - universal, covering a long trajectory in the knowledge chain
- Internal Funding for fundamental & application oriented research (approx. 75 mio euro/year)
- Tool to translate university policy into research practice
- Checks and balances…. but quality first!

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2. Dealing with disciplines @ KU Leuven

- Impact = one of 5 priorities within Research Policy Plan

  - Researchers: expertise, creativity, network, …
  - Resources: internal funding for strategic basic research (C2) & application oriented research (C3) + business developers
  - Environment: leadership, management, internal organisation, networking, open…

Impact = real engagement of researchers, in a networked approach with stakeholders

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3. Research impact and quality assurance

10 Ways to scale nonprofit impact; Tom Vander Ack

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3. Research impact and quality assurance

The REF example

- Impact stories (cf REF: https://impact.ref.ac.uk/casestudies/)
  a. Summary of the impact
  b. Underpinning research
  c. References to the research
  d. Details of the impact
  e. Sources to corroborate the impact
- Expert panels: 4 main panels + 34 sub panels
  - A Medicine, Psychology, Agriculture, Food: …….: 1586 stories
  - B Earth systems, Chemistry, Physics, engineering…: 1469
  - C Architecture, Geography, Law, Sociology, Sport..: 1965
  - D Language, history, Philosophy, Cultural studies..: 1617

3. Research impact and quality assurance

The REF example

1. **Instrumental** – impacts on public policies and services, health and welfare impacts, economic and commercial impacts
2. **Capacity building** – learning, skills, confidence, social cohesion, new institutions and groups organised
3. **Conceptual** – knowledge and learning, enjoyment and inspiration and other changes in understanding
4. **Attitude or culture change** – institutional and organisational change, changes in values and behavior, public discourse and cultural life
5. **Networks** – enduring new networks, capacity for future collaborations and willingness to engage again in future

Source: https://www.ediqo.com/blog/qa-with-prof-mark-reed

3. Research impact and quality assurance

Allocation of internal funding @ KU Leuven

- Internal funding programs @ KU Leuven:
  - Cat 1: fundamental
  - Cat 2: impact oriented: societal or economic
  - Cat 3: application oriented
- Cat 2: Strategic Basic research (20 mio €/y), subdivided in two project lines:
  - Economic impact Cat 2-E
  - Societal impact Cat 2-S
- 35 innovation managers of the “industrial research fund KU Leuven”

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3. Research impact and quality assurance

Allocation of internal funding @ KU Leuven

Category 1	Category 2	Category 3
Fundamental research ('blue sky science'), inspired by curiosity; question- or hypothesis-driven.	Strategic basic research that is society-driven and will encounter societal and/or economic challenges in the further future.	Socio-economic applied research with a concrete valorisation plan with defined stakeholders.
Scientific added value.	Scientific and societal, economic or socio-economic added value.	Socio-economic added value.
Mono- or multidisciplinary.	Mono- or multidisciplinary.	Mono- or multidisciplinary.
Leverage to, e.g. FWO, large scale infrastructure, Marie Sklodowska Curie, FET, BELSPO, ERC and ESFRI project applications.	Leverage to, e.g. FWO (like SBO, large scale infrastructure), VLAIO, FET, *Horizon 2020* multipartner and ESFRI project applications and internal Category 3 applications.	Leverage to, e.g. *Horizon 2020* multipartner project applications, VLAIO O&O projects, patents, contract research with industry/government/other

3. Research impact and quality assurance

- Cat 2 – project evaluation (Cat 2-E / Cat 2-S)
  - Submissions: 70 (2018)
  - Available budget: approx. 20 M€/year
  - Merge of two internal funding schemes: for fundamental research fund + industrial research fund
  - Success-rate: 25 – 35%
  - Peer review + rebuttal
  - Research Council & Industrial Research Council
  - Impact panel
  - Approval by Academic Council

3. Research impact and quality assurance
Cat 2

- Cat 2 : strategic basic research; economic/societal
  - Research Council (interdisciplinary; academic members)
  - Industrial Research Council (multi-sectoral; academic + industrial members
  - Impact panel (industrial members + external societal representatives)

  - Final Approval by Academic Council

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3. Research impact and quality assurance
Cat 2 - E

- the economic exploitation of knowledge production at universities and higher education schools, by building up applied science portfolio at universities, and stimulating university-industry linkages
- strengthen the link between basic research and technological innovation and develop the transfer of knowledge to third parties
- support the valorization of knowledge that is developed, e.g. by collaborating with industry, the government and the non-profit sector, or by setting up new companies

“Bridging the gap”

3. Research impact and quality assurance

"industrial research fund @ KU Leuven"

TRL	1	2	3	4	5	6	7	8	9
Activity	Discovery & Research		Innovation					Commercialisation	
Description	basic principles observed	application formulated	experimental proof of concept	lab validation	(system or component) validation in relevant environment	demonstrator in relevant environment	system prototype demonstrated in operational environment	system complete and qualified (test & demo) in operational environment	actual system proven in operational environment

- **Bridging the gap**

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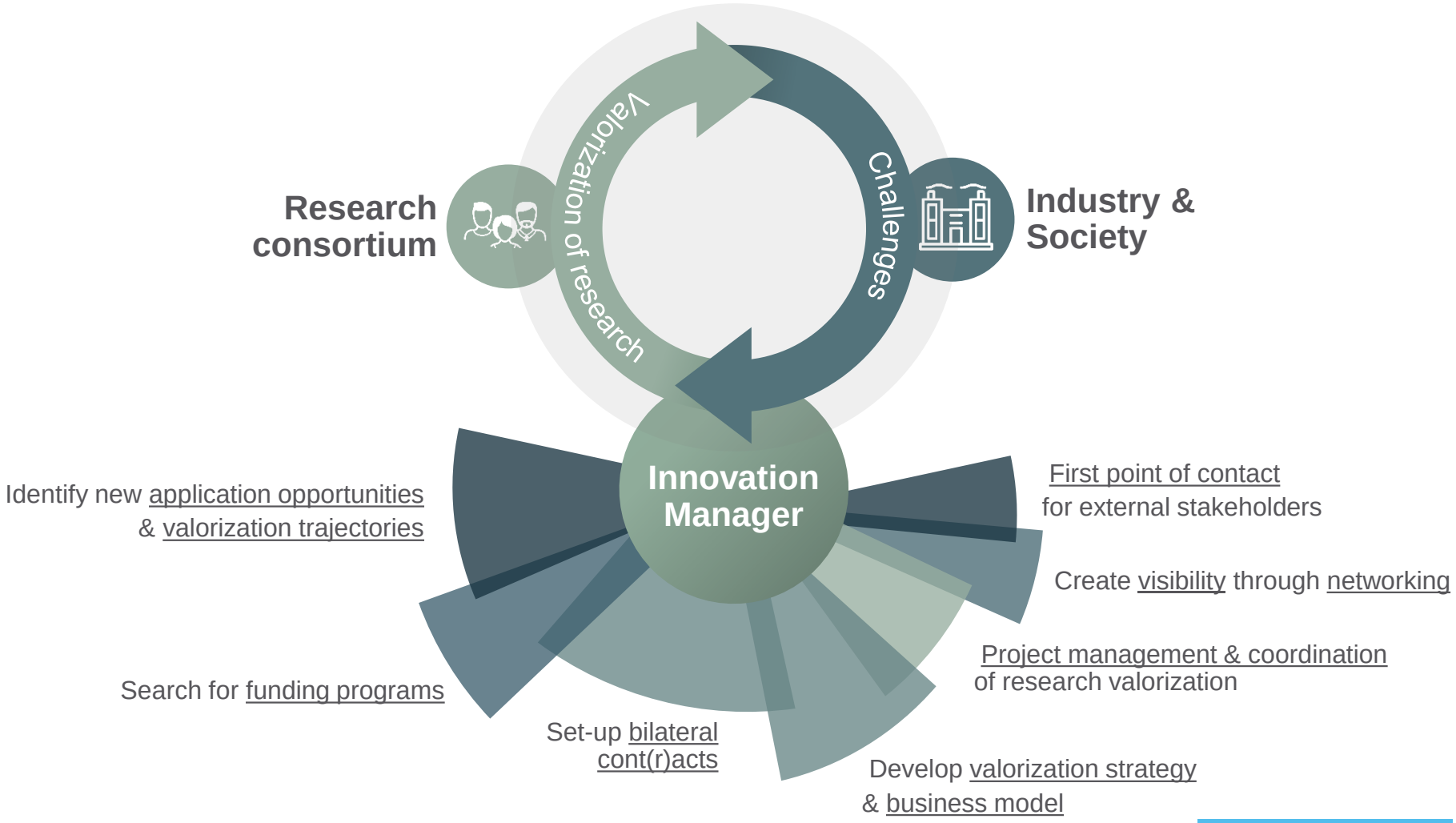
3. Research impact and quality assurance
the innovation managers @ KU Leuven



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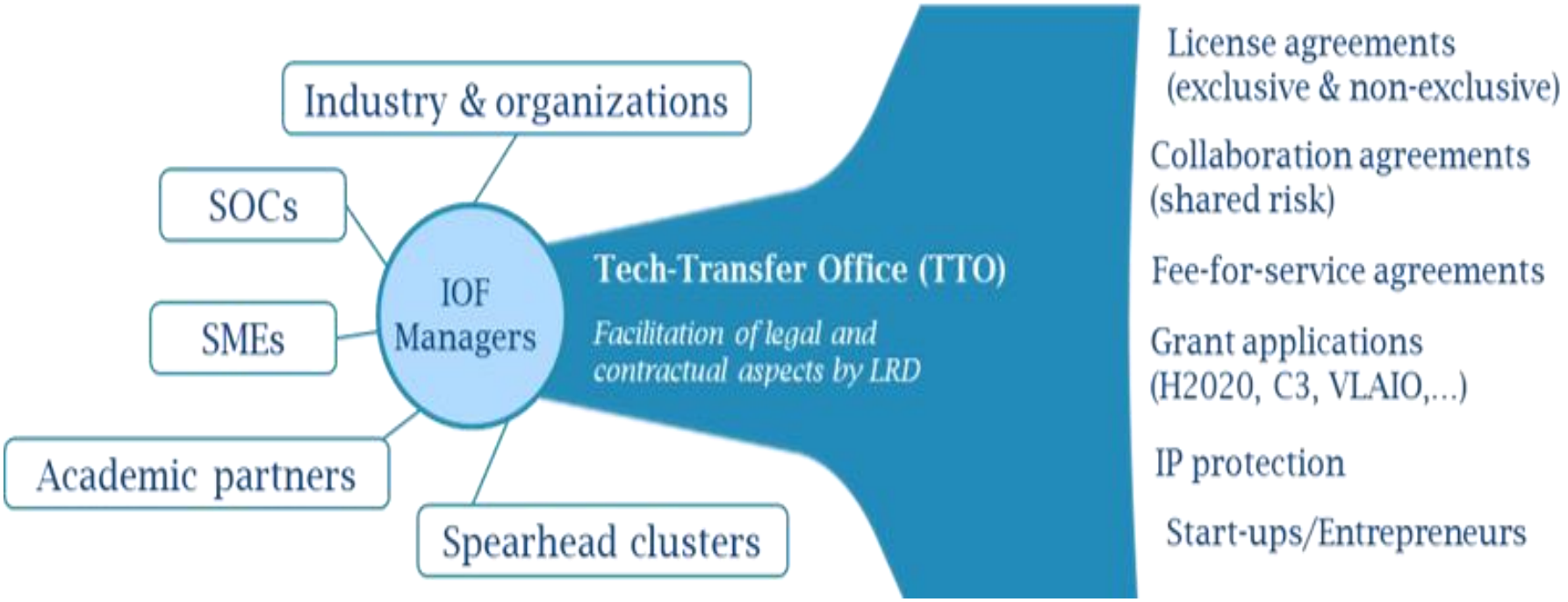
3. Research impact and quality assurance

the role of the innovation managers @KU Leuven



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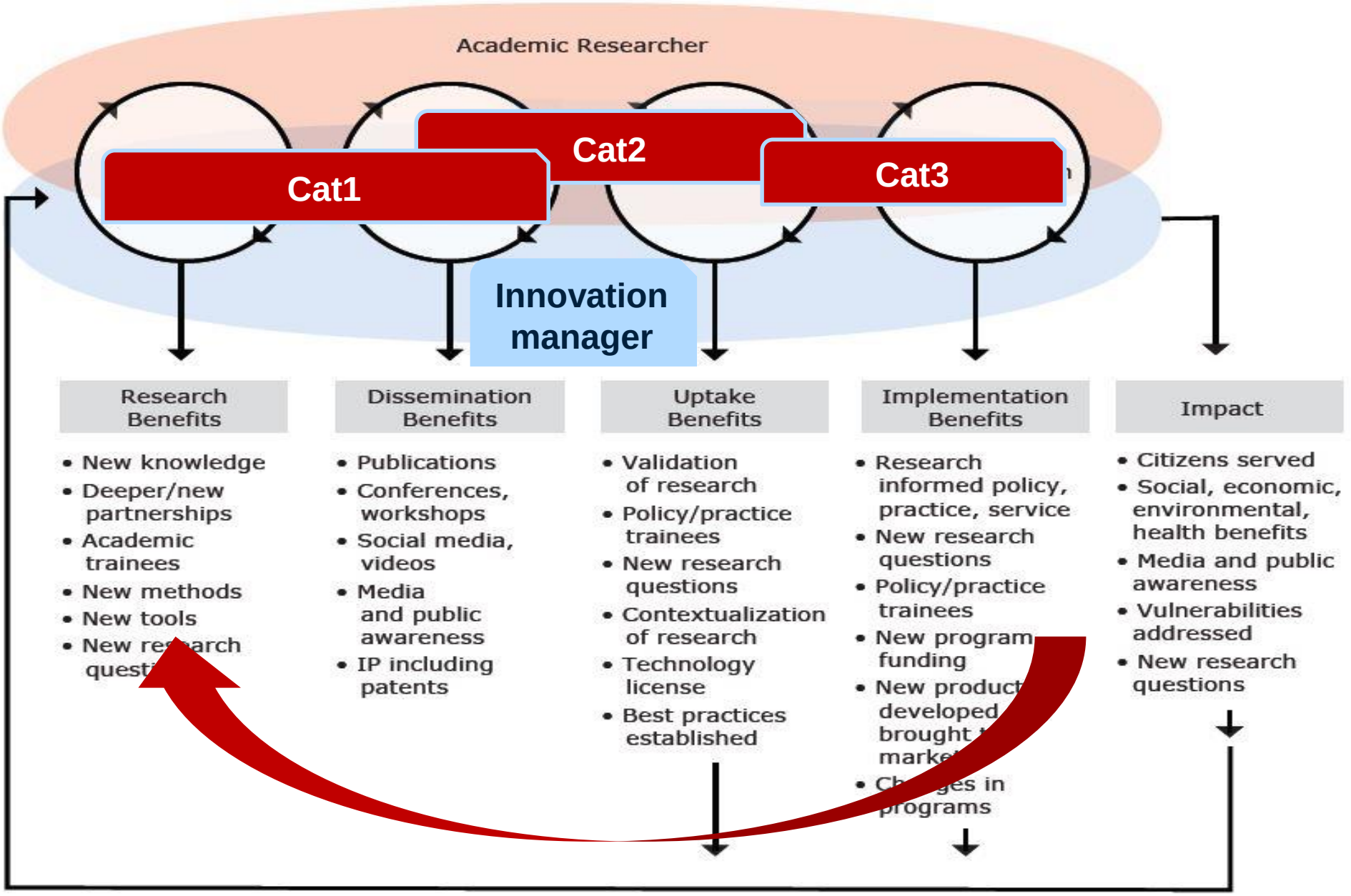
PREVNet's Co-produced Pathway to Impact



3. Research impact and quality assurance
@KU Leuven - experiences

- Follow up and coaching of innovation managers is necessary
- Paying attention to impact in project funding is positive is the scope of follow up (external) funding
- The integration of ‘impact’ in the general internal funding schemes for Cat1 - Cat2 and Cat3 projects seems to be positive (but should be evaluated in the future)
- Tradition in impact is supportive: research groups with a track record in impact continue to do so.

Conclusions

- There is still a long way to go: impact asks for a change in attitudes of researchers, change in culture and internal organisation,
- This is perfectly demonstrated by the tension between the two following viewpoints:
  - ➢Viewpoint of academia on Missions Horizon Europe
  - ➢Viewpoint Jean-Pierre Bourguignon (president ERC)

Opinion of Academia Mission orientation

Concentration and coordination of efforts:

- Lower conviction that **R&I investments should be concentrated** towards missions to improve efficiency than other categories (such as RTOs and industry);
- Clear **preference for national and regional funding instruments** coordinated with Horizon Europe.

Stakeholder involvement

- **Not particularly positive in involving citizens**, especially in accelerators;
- **Sceptical in involving regional and municipal authorities**;
- **Particularly positive towards the involvement of universities and RTOs**

Overall expectations regarding mission-oriented

- Support the choice of higher risky R&I investments
- Improve time-to-market
- **Not stimulate job creation**

Jean-Pierre Bourguignon (ERC)

"….the 'best bets' are made when scientists are pushed to their boundaries, when submitting research proposals, and the most competent evaluators are confronted with these challenging projects. You may have to press them to take risk, as our community is actually spontaneously conservative and needs to be put outside of its comfort zone to accept some bets. This is precisely what the European Research Council is about, and I hope it plays its part in this process of educating policy makers.

Finally, we must not forget that the most essential constituents of the research system are the researchers themselves, the human beings who make all this exist and function. In consequence it is of the greatest importance that the system provides them with a decent career path"

KU LEUVEN

Thank you !

The UK's European university

University of Kent

Maximising the societal impact of research: the use of impact indicators

Methods & Instruments for Assessing the Societal Impact of Research

AESIS

6th Nov 2019, London

Simon Kerridge
Director of Research Services




orcid.org/0000-0003-4094-3719

@SimonRKerridge

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

Steering Committee

Board Alternate, EARMA

Immediate Past Chair, ARMA

Simon

University of Kent

- Ex Entrepreneur
- Ex Researcher
- Research Manager and Administrator
  - Entrepreneurial
  - Researching
  - Teaching

- Open Research Advocate
- Metric Tide
- 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

[including securing an additional partner]

1995-2012: Its complicated

2012-Present: Director of Research Services, University of Kent, UK

Maximising the societal impact of research: the use of impact indicators

- Institutional Impact Strategy
  - Responsible Metrics
- Snowball Metrics
  - As an example of pathways to impact
- Vertigo Ventures
  - As an example of evidencing impact

Institutional Impact Strategy

- A brief reprise of
  - What impact is
  - What it isn't
  - How to facilitate it
- How to assess it
- Thanks to Dr Julie Bayley, University of Lincoln

What is research impact?

‘For the purposes of the REF, impact is defined as an effect on, change or benefit to the economy, society, culture, public policy or services, health, the environment or quality of life, beyond academia’

Research England (REF)

'the demonstrable contribution that excellent research makes to society and the economy‘

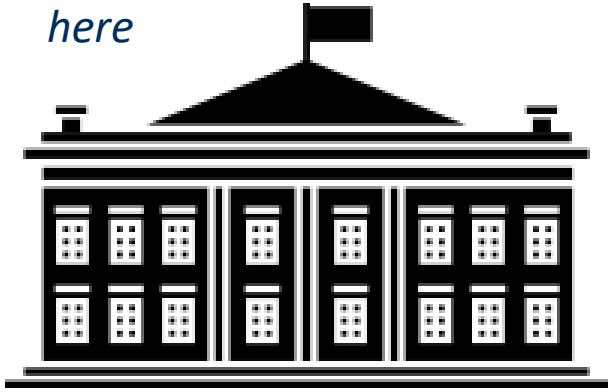
UK Research and Innovation

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

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

The VERY shorthand version *(*overly simplified and subject to disciplinary nuance, critical discourse, ethical reflections…..)*

Research conducted here



University

"The wall"

Effects felt here

Society

Impact is change (e.g.)

Reduced, less, lower…

Mortality

Waste

Risk

Cost

Staff turnover

Stress

Crime

Efficiency

Effectiveness

Wellbeing

Engagement

Access

Sales

Profit

Skills

Improved, more, faster, increased….

UNIVERSITY OF LINCOLN

Impact is not….

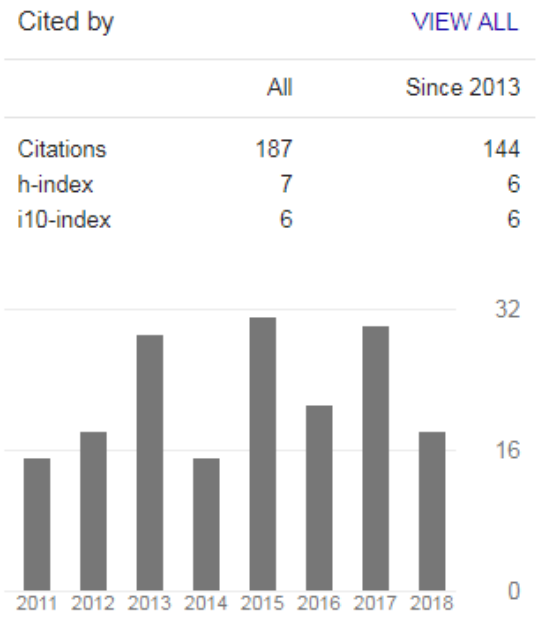
☒ Dissemination

☒ Academic interest, citations, or publications metrics

☒ Visibility, attention or reputation

☒ Neat, linear or without effort

☒ Just in the UK



REF2021 Research Excellence Framework

- Case studies describing specific examples of impacts achieved during the assessment period **(1 August 2013 to 31 July 2020),** underpinned by research at the institution in the period **1 January 2000 to 31 December 2020.**
- Marked on reach and significance
- Ratings: Unclassified (no impact/ineligible) to 4* (Outstanding)
- Worth 25% of total score

5 Impact Lessons

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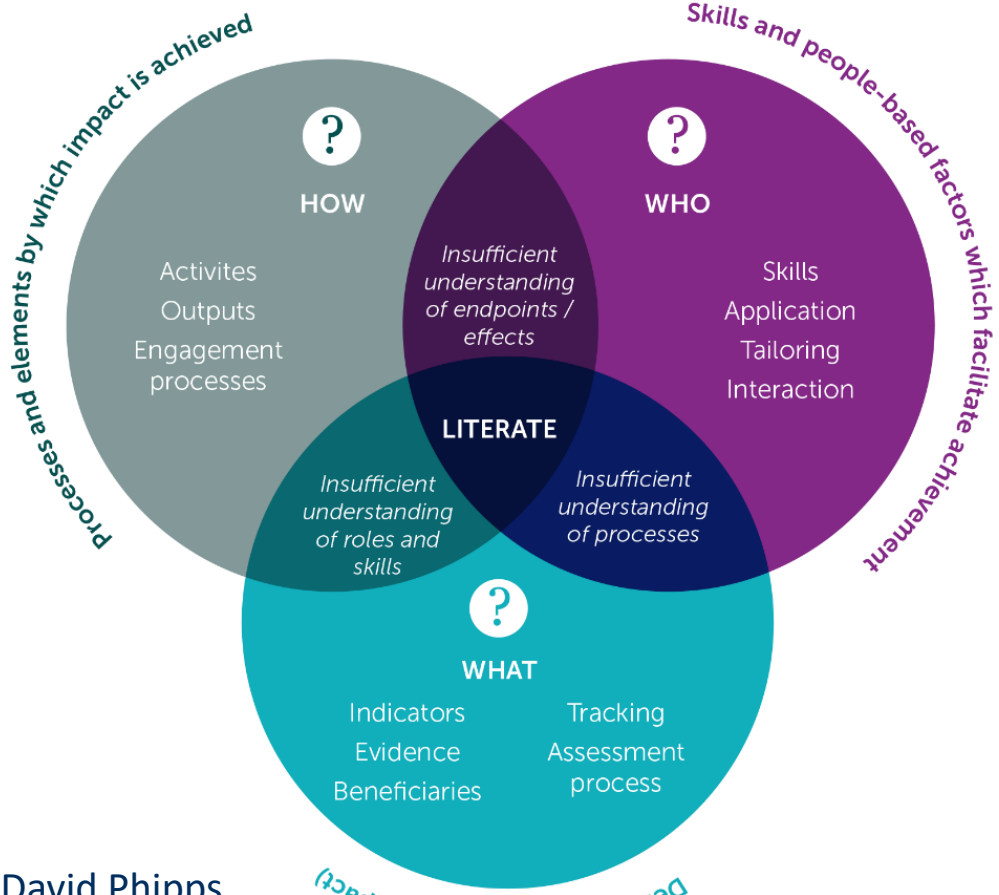
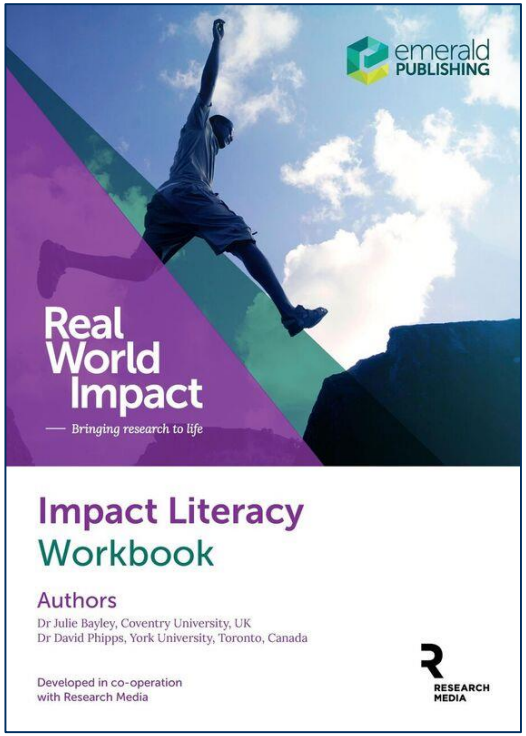
1. We are all custodians of impact; we each have a piece of the puzzle

Impact literacy





David Phipps
@mobilemobilizer

Available at
https://www.emeraldpublishing.com/resources/

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Bayley, J. and Phipps, D. (2017) *Building the Concept of Impact Literacy, Evidence and Policy (available online)* http://www.ingentaconnect.com/content/tpp/ep

Recognising complexity……

Knowledge transfer

Knowledge exchange

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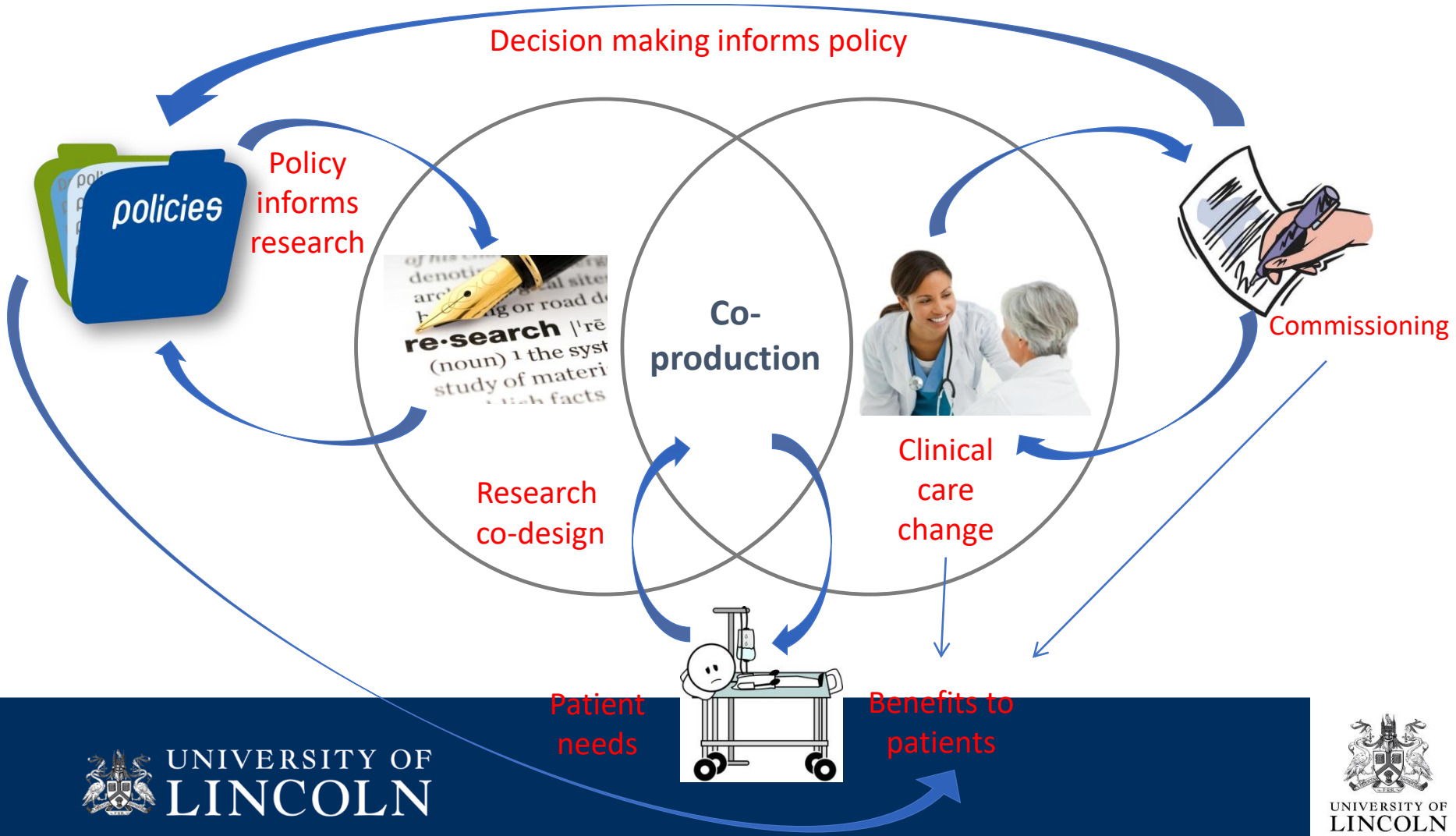
Knowledge mobilisation



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2. We often speak different languages

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; 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

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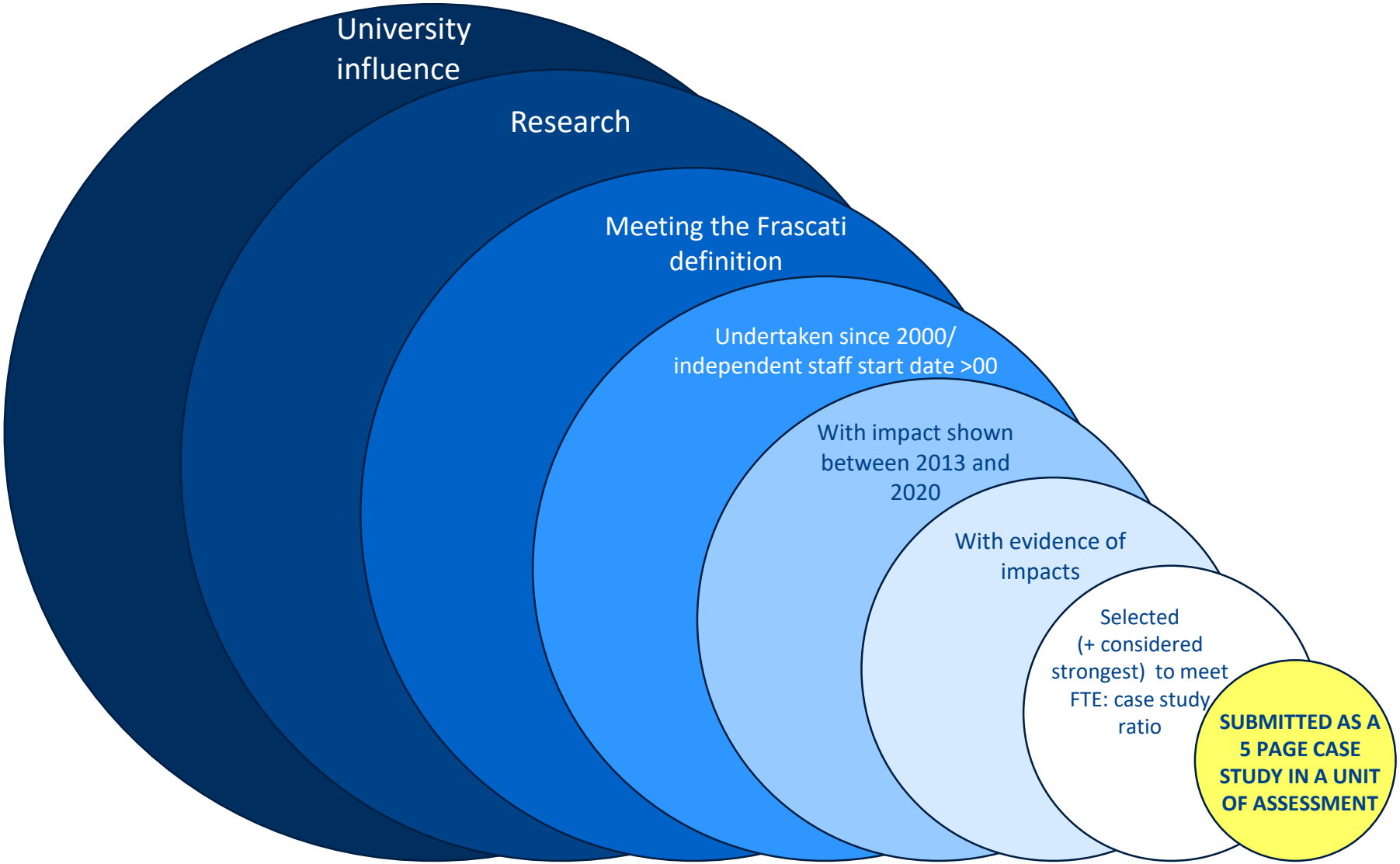
University influence vs. REF impact



3. Impact case studies show the sausages, not the sausage factory

Challenges

- Impact resists templating
- Assumption the problem is ‘lack of knowledge’
- Requires time and effort
- Requires knowledge broker and translation skills
- Insufficient implementation planning
- Can be an afterthought
- May meet with resistance

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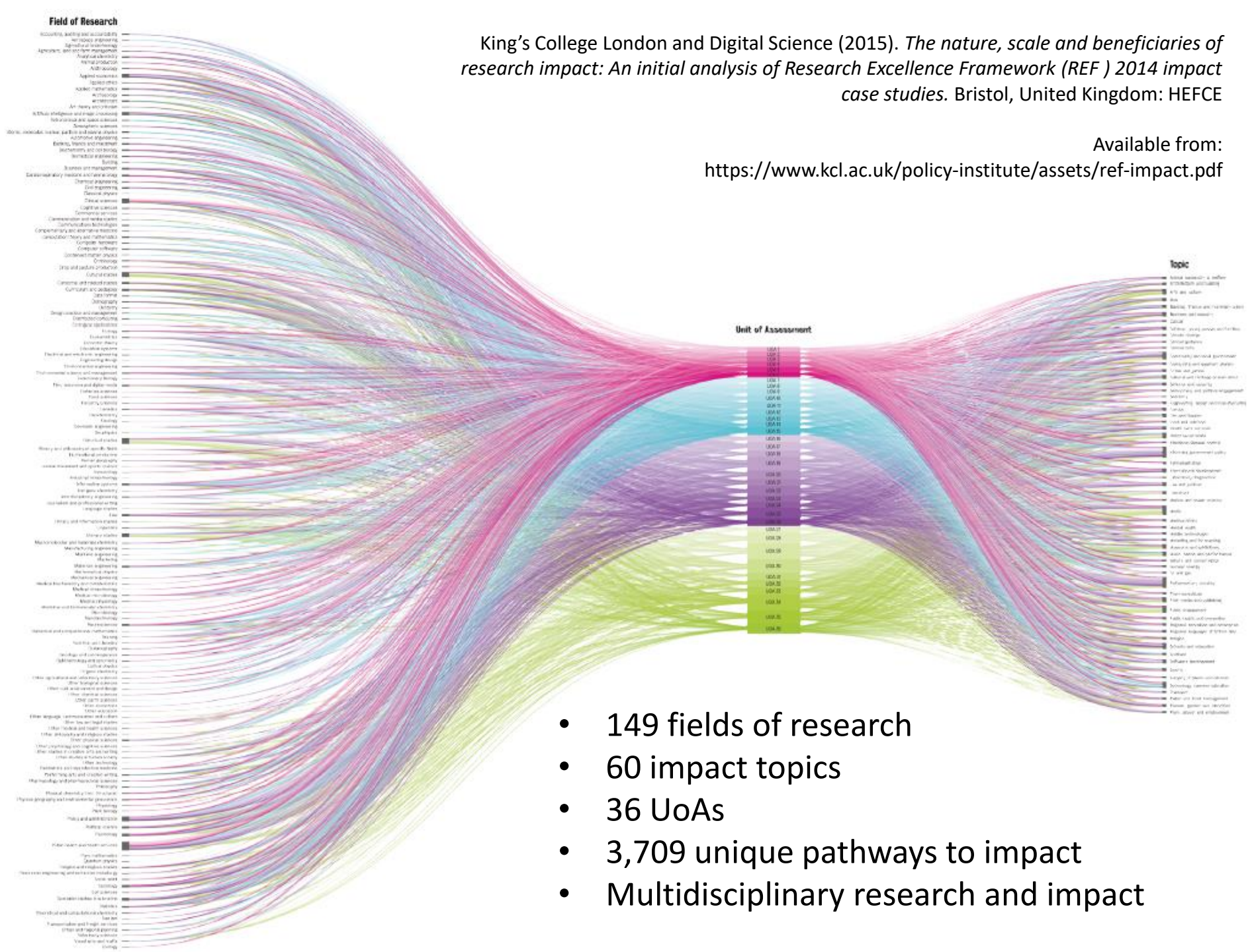
King's College London and Digital Science (2015). *The nature, scale and beneficiaries of research impact: An initial analysis of Research Excellence Framework (REF) 2014 impact case studies.* Bristol, United Kingdom: HEFCE

Available from:
https://www.kcl.ac.uk/policy-institute/assets/ref-impact.pdf



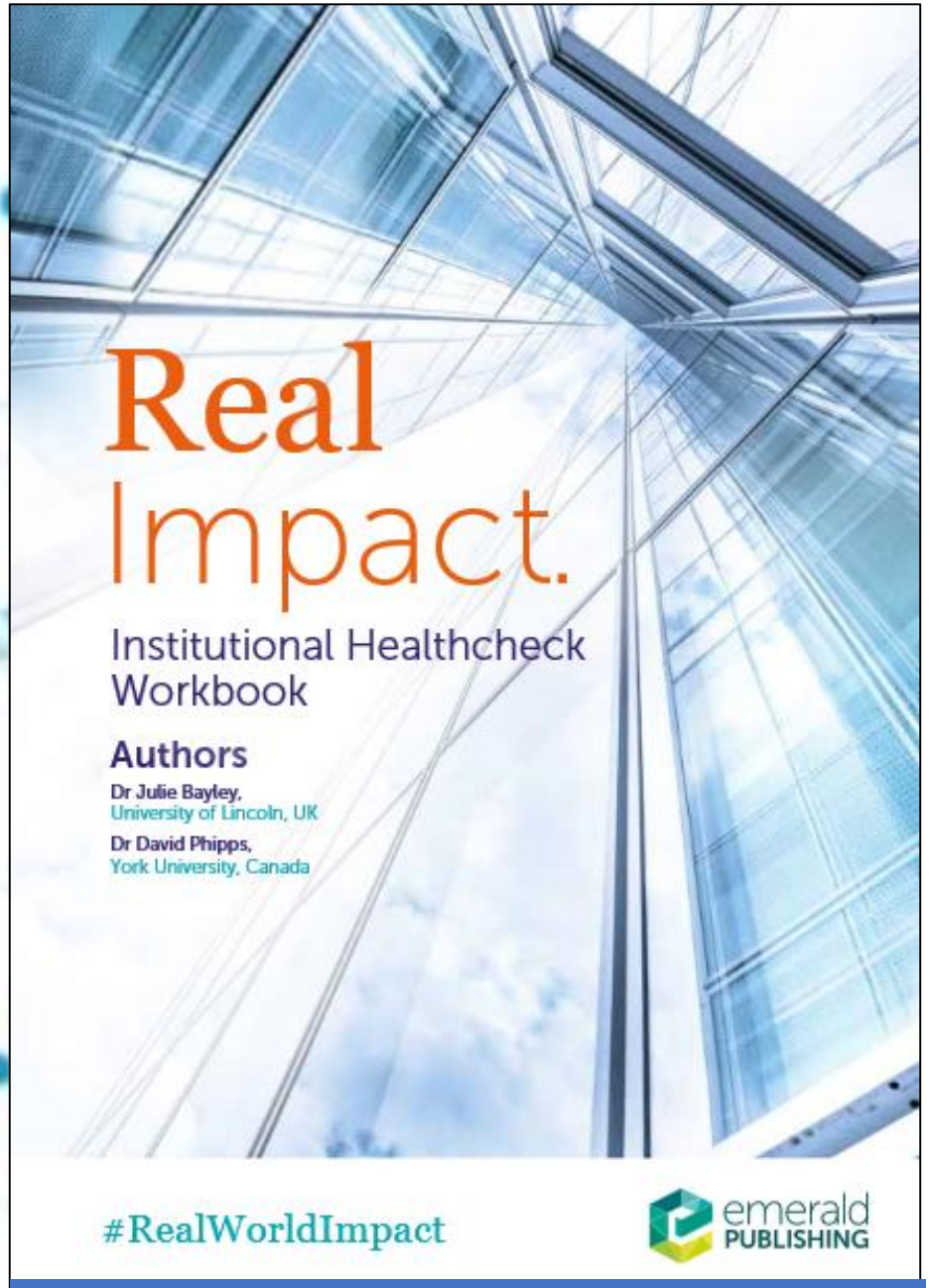
- 149 fields of research
- 60 impact topics
- 36 UoAs
- 3,709 unique pathways to impact
- Multidisciplinary research and impact

King's College London and Digital Science (2015). *The nature, scale and beneficiaries of research impact: An initial analysis of Research Excellence Framework (REF) 2014 impact case studies.* Bristol, United Kingdom: HEFCE

Available from:
https://www.kcl.ac.uk/policy-institute/assets/ref-impact.pdf

- 60 impact topics
- 36 UoAs (Social Sciences in purple)
- Multidisciplinary research and impact

4. We need healthy, *connected* institutions



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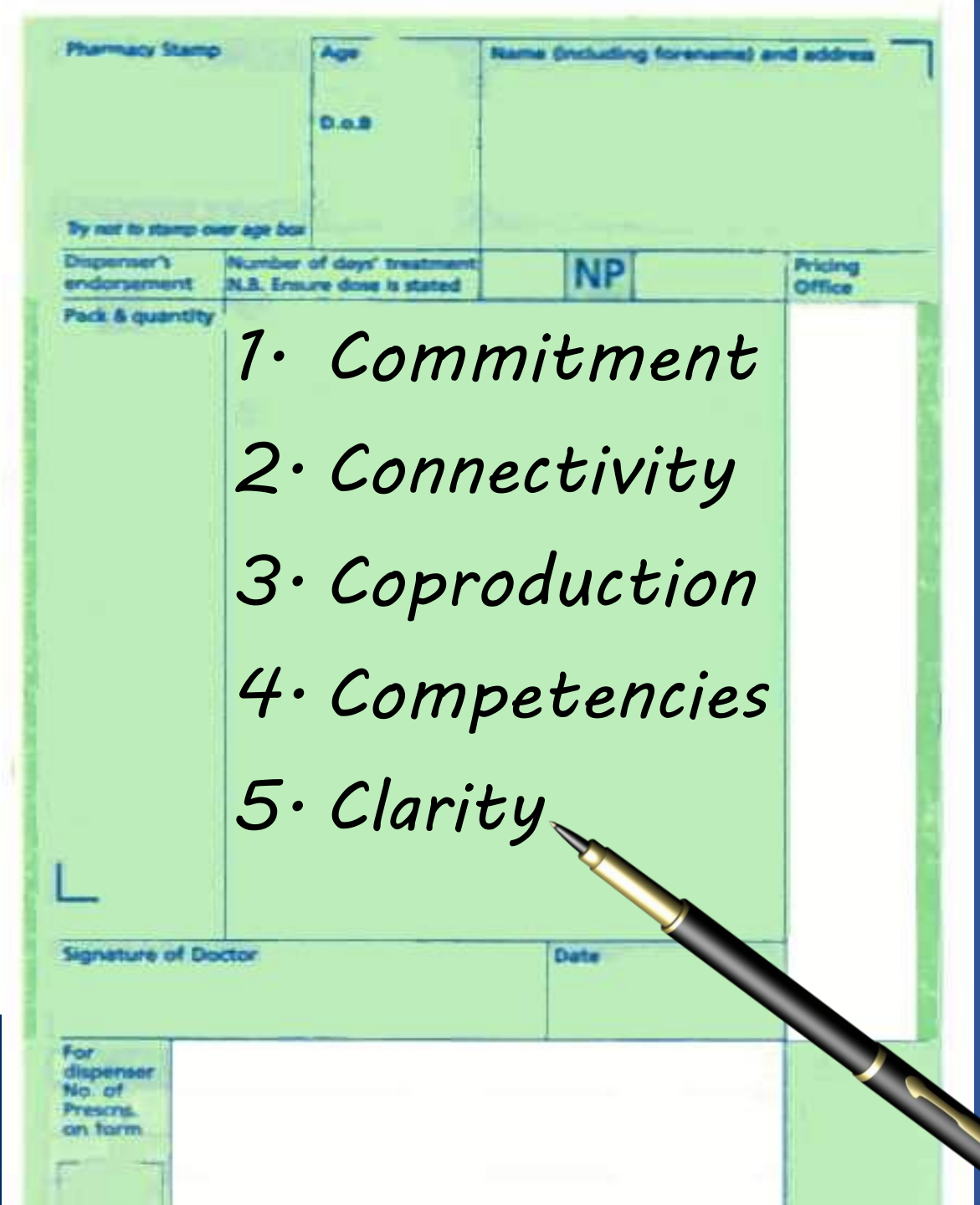
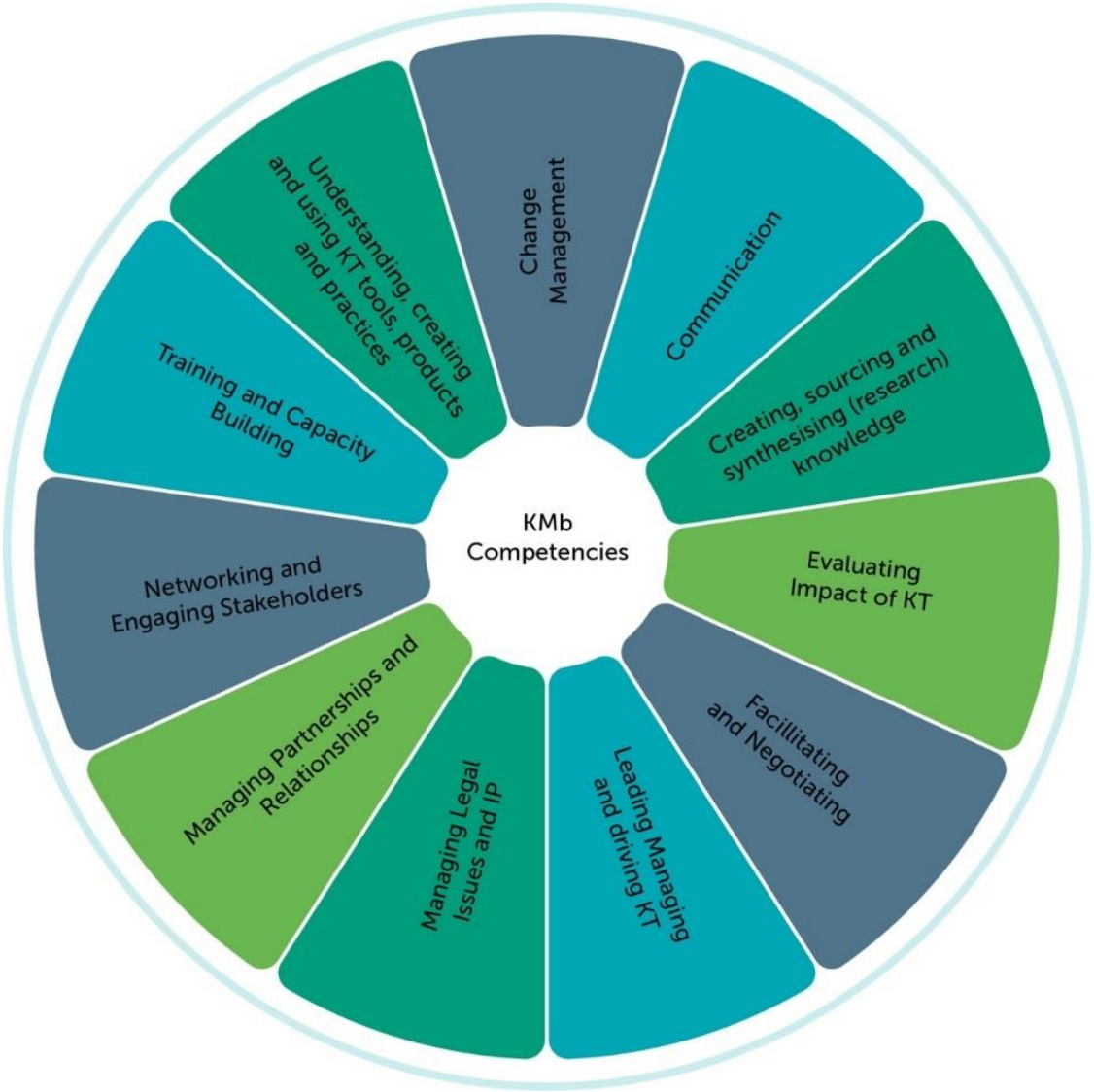
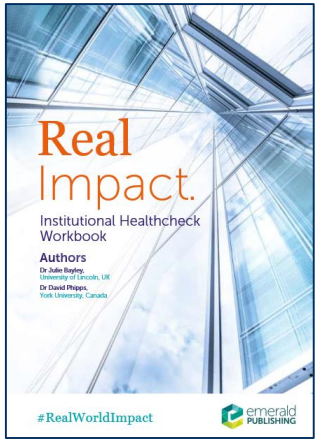


5 Cs of Institutional Impact Health

emerald PUBLISHING

Competencies





Bayley, J.E, Phipps, D., Batac, M. and Stevens, E. (2017) Development and synthesis of a Knowledge Broker Competency Framework. *Evidence and Policy (available online)* https://doi.org/10.1332/174426417X14945838375124

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https://www.nihr.ac.uk/blogs/chasing-the-impact-unicorn-myths-and-methods-in-demonstrating-research-benefit/7479)
5. We have a tendency to chase impact unicorns

Meaning is everything

"When all the medics were talking about curing cancer….

… what I also wanted…..

….was to swallow"

Derek Stewart

Patient advocate after throat cancer in 1995: Blogger, Facilitator, Speaker with a Narrowboat and an OBE

Follow him on Twitter: @DerekCStewart

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Impact is a challenge of connection

Imagine what's possible when we work together

THANK YOU TO

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Twitter: @JulieEBayley

Website: www.juliebayley.blog

Institutional Impact Strategy - Summary

A committed institution can embed processes to:

1. Maximise the production of 'impactful' research
2. Maximise the likelihood of uptake and adoption of research
3. Support monitoring, tracking and recording of impact
4. Build capacity through staff and student training.

- What impact is (and isn't)
- Their vision for impact, and how this connects to both institutional processes and job roles
- Formal expectations the institution must meet (eg. funding requirements, government assessments)
- How impact is not measurable by traditional markers of research attention (eg. impact factors, article citations)
- Recognition that not all research will have impact (or immediate impact), and that disciplines vary greatly in impact pathways and demonstrable effects.

However, communication cannot be in one direction only; senior leadership must listen carefully to those delivering impact to shape strategy and actively review delivery processes.

Who 'does impact'?

Impact operates at all levels of an institution, and requires the support of individuals and teams in various capacities, including:

- **Knowledge producers:** researchers and academic staff who create the 'new knowledge' with the potential to make change
- **Leaders and strategy makers:** those in senior leadership positions who develop the vision, space and investment in impact
- **Impact specialists:** highly impact literate individuals with a deeper level of understanding about how impact operates
- **Knowledge brokers:** staff who actively connect research outwards beyond academia. This may be commercial in focus (eg. technology transfer, industry partnerships), non-commercial (eg. public engagement, policy development, charities, schools, hospitals) or a combination. NB commercially focused alone is not sufficient to make in institution impact 'healthy'
- **Research managers:** staff with a focus on broader institutional processes (such as funding and post award)
- **Information managers:** staff with a focus on coordinating and systematising the information associated with impact pathways
- **Communicators:** staff who showcase and improve visibility of research (such as marketing, communication, web teams and scholarly communications.

https://www.emeraldpublishing.com/wordpress/wp-content/uploads/Emerald-Resources-Institutional-Healthcheck-Workbook.pdf

Institutional Impact Strategy - Summary

Impact requires effort and skills in brokering research beyond academia. It's therefore necessary that institutions:

a) Develop skills across the workforce, including academics (at all levels), research managers, those working in brokering roles (eg. public engagement, technology transfer) and built into student curricula

b) Identify and coordinate specialised skills such as intellectual property and higher level impact experts

Dissemination is necessary but not sufficient to inform change. Impact can only happen if research is used beyond academia, so it is crucial to engage non-academics into the research process as early as possible. If stakeholder involvement is left until the end, the pathway to impact may be far harder and potentially unachievable. Collaboration across the research lifecycle helps:

- Frame research questions and methodology
- Root the research in what matters to stakeholders
- Understand, check and overturn assumptions about which changes (impacts) are most meaningful to those affected by the research
- Identify how outcomes can be best communicated to difference audiences
- Identify any difficulties in putting research into practice
- Improve plans for and likelihood of uptake, adoption and implementation

A healthy impact institution will recognise, value and support engagement of those beyond the institution through a range of means such as:

- Developing formal arrangements with organisational partners (eg. contractual relationships with industry for joint posts, or formal agreements to adopt research)
- Developing relationships with potential audiences (eg. establishing networks of local businesses or healthcare organisations)
- Supporting individual level connections (eg. identifying and/or resourcing opportunities to build on-the-ground links)
- Showcasing research via institutional communication channels to strengthen visibility (eg. for policy makers attention)

https://www.emeraldpublishing.com/wordpress/wp-content/uploads/Emerald-Resources-Institutional-Healthcheck-Workbook.pdf

Responsible Metrics

- https://sfdora.org/
- https://responsiblemetrics.org/
- http://www.leidenmanifesto.org/

- And thanks to Lizzie Gadd for most of these slides!
- https://thebibliomagician.wordpress.com/category/responsible-metrics/

Overview

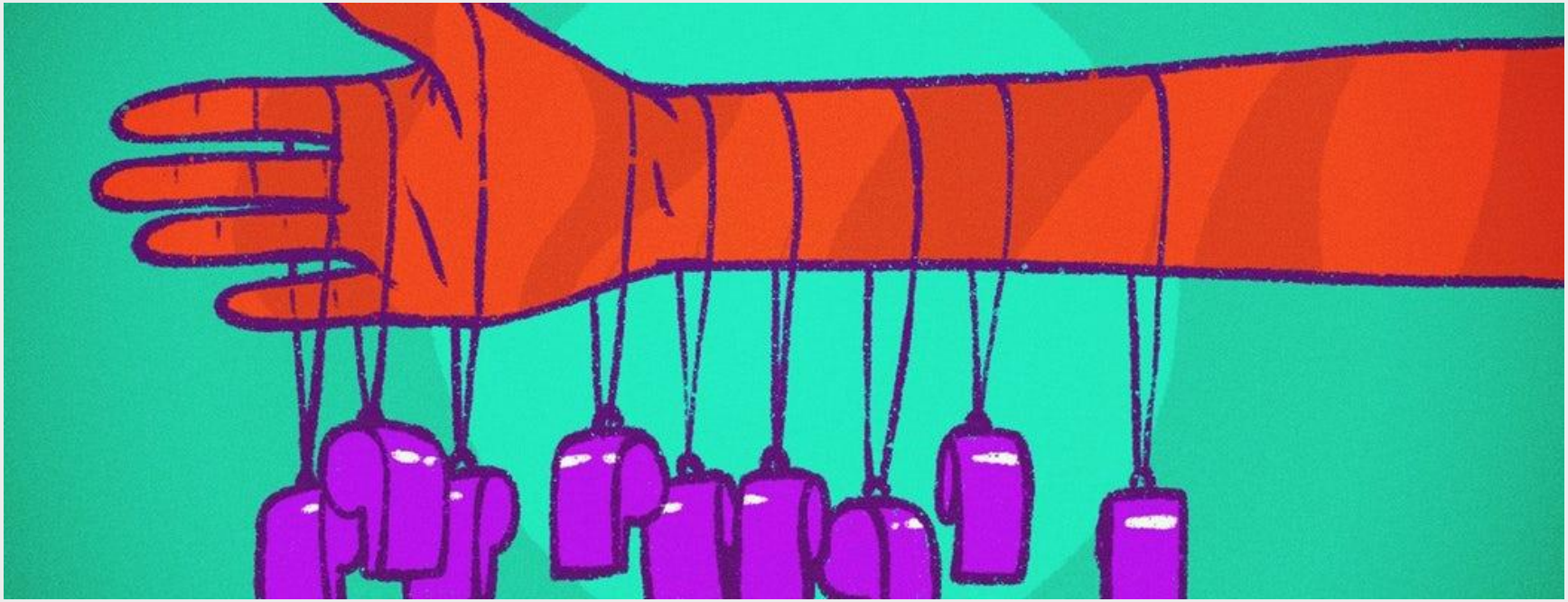
- What are responsible metrics?
- Why should we care?
- How to implement a responsible metrics policy
- How to actually do metrics responsibly
- Who is responsible for responsible metrics?
- A call for research evaluation literacy

Responsible metrics lead to better decisions

- Comparing SSH with STEM on citation counts…
- Comparing early & late-career academics on h-index…
- Judging anyone by their ResearchGate score…
- …just isn't going to lead to a sensible decision, let alone a fair one.

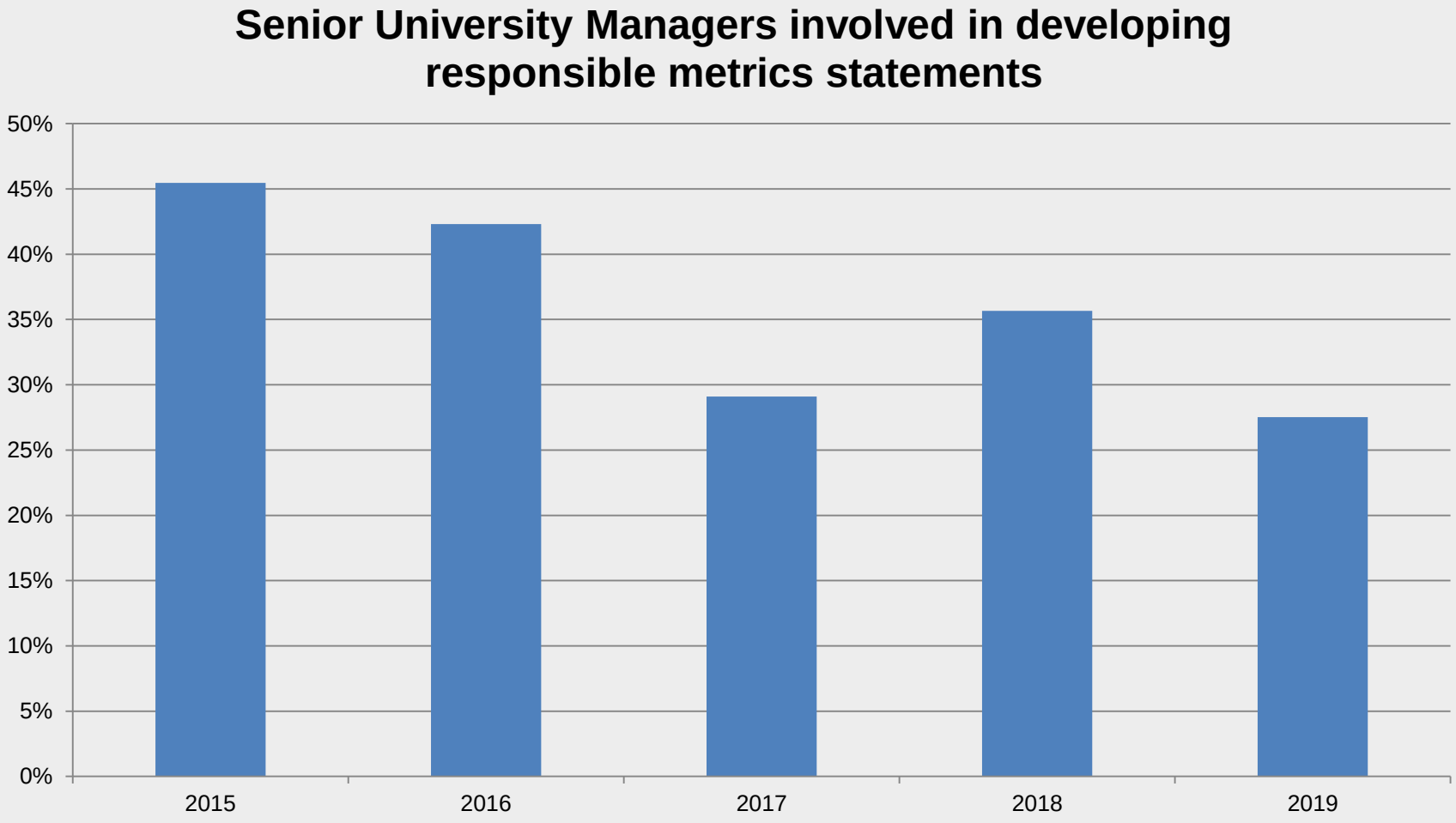
How to implement a responsible metrics policy

The need to accept your policy is just the beginning



The need to consider the advise-police-judge spectrum

The need for ownership at senior level

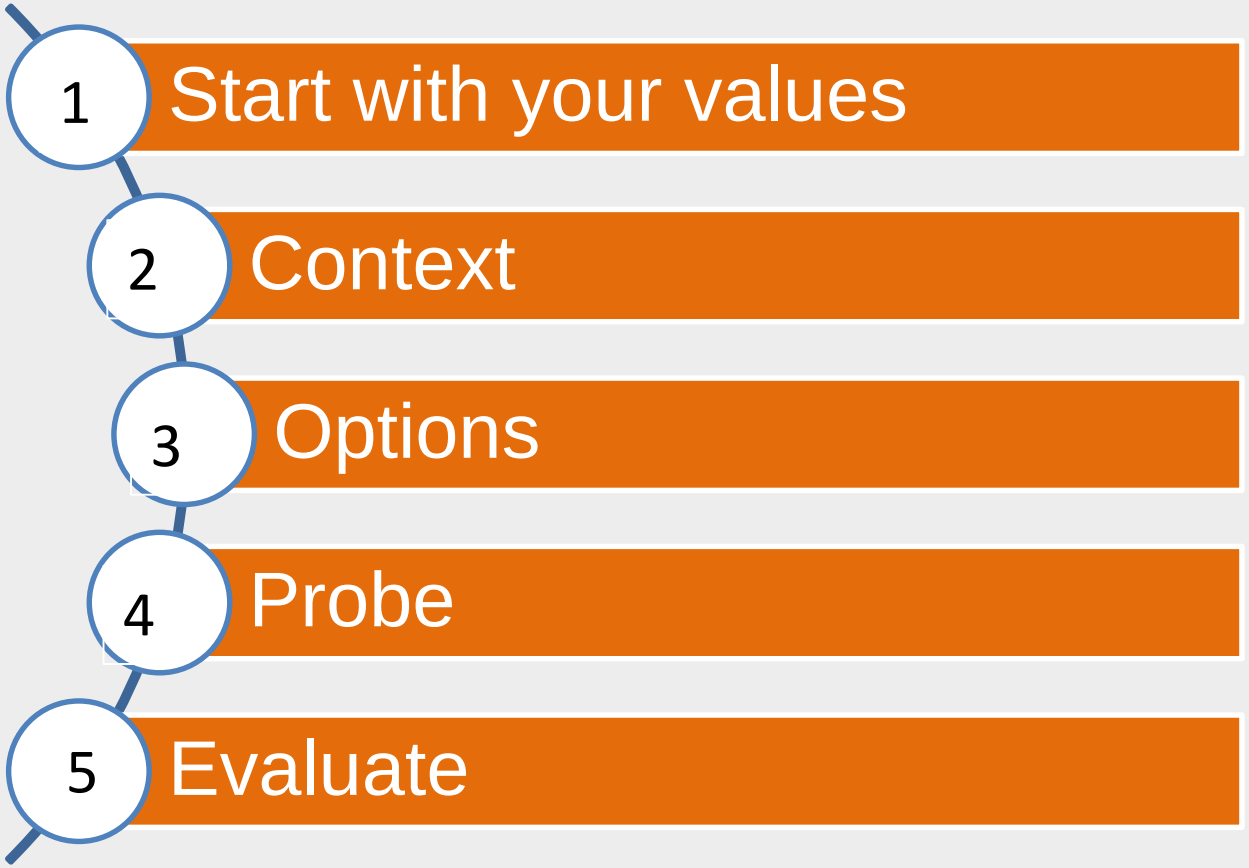


The need to manage upwards

From a mailing list:

"…there's a desire to have…a metric (and they are keen on just one) against which to evaluate the performance of our research…. I'd be very interested to hear anyone else's experiences …in dealing with the expectations of senior managers with this sort of thing."

Introducing the inorms Research Evaluation Working Group SCOPE model



START with what you value

- Not with the data you have available
  - The Streetlight Effect
- Not what others value
- University autonomy: use it or lose it

“If my h-index is the answer, what is the question?”

The streetlight effect

Understand who & why you're evaluating

Figure 1. Risks associated with metric use in various settings

	Low risk
	Medium risk
	High risk

Do we need to evaluate at all?

- Huge growth in incentivising behaviour through measurement
- Campbell's Law: "The way you measure me is the way I'll behave"
- Measuring is not always the best way to incentivise behaviour

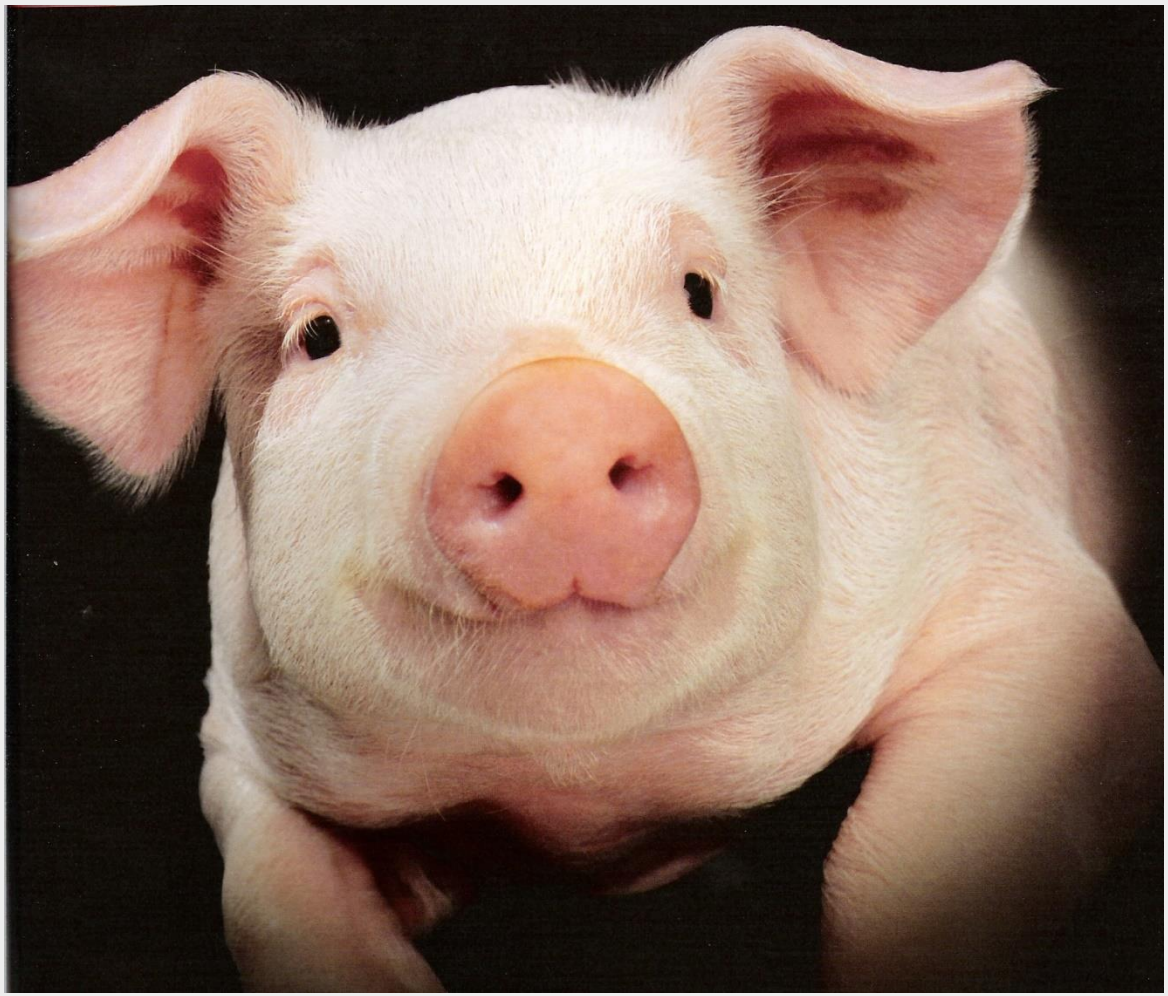
Options

- Is your measure a suitable proxy for what you're measuring?
- Quantitative measures are for quantifiable things…
  - Citations, publications, money, students
- Qualitative measures for qualifiable things…
  - Quality, diversity, excellence, value
- Beware using quantitative indicators as a proxy for qualitative things
  - Citations ≠ quality
  - Ranking position ≠ excellence

Probe for potential negative impacts

1. Who does this discriminate against?
2. How could this be gamed?
3. What might the perverse incentives and consequences be?
4. Do the benefits of measuring outweigh the cost of measuring?
5. Is evaluating research actually going to make it any better?

You don’t fatten a pig by weighing it



Responsible metrics requires responsible people

- Robust
- Humble
- Transparent
- Diverse
- Reflexive

Thank you for those slides to

Dr Elizabeth Gadd
Research Policy Manager (Publications)
Loughborough University

Skype: lizziegadd
Twitter: @lizziegadd
Email: e.a.gadd@lboro.ac.uk

http://orcid.org/0000-0003-4509-7785
http://about.me/elizabeth.gadd

Snowball Metrics

- https://www.snowballmetrics.com/

- Defined and agreed by research-intensive universities themselves
- Commonly understood metrics that help uncover research strengths by benchmarking apples with apples, and thus provide valuable input into strategic decision making
- Tested methodologies that are not tied to any particular provider of data or tools
- Recipes that are owned by universities, and are available free-of-charge for use by any organization
- Aspire to become global standards and cover the entire spectrum of research activities

Snowball Metrics

	Research Inputs	Research Processes	Research Outputs and Outcomes
Research	• Applications Volume • Awards Volume • Success Rate	• Income Volume • Market Share	**Publications & citations** • Scholarly Output (enhanced) • Citation Count • Citations per Output • *h*-index • Field-Weighted Citation Impact • Outputs in Top Percentiles • Publications in Top Journal Percentiles **Collaboration** • Collaboration • Collaboration Publication Share • Collaboration Impact • Collaboration Field-Weighted Citation Impact • Academic-Corporate Collaboration • Academic-Corporate Collaboration Impact **Societal impact** • Altmetrics • Public Engagement • Academic Recognition
Enterprise Activities/ Economic Development	• Academic-Industry Leverage • Business Consultancy Activities	• Contract Research Volume	• Intellectual Property Volume • Intellectual Property Income • Sustainable Spin-Offs (enhanced) • Spin-Off-Related Finances (enhanced)
Post-Graduate Education	• Research Student Funding	• Research Student to Academic Staff Ratio	• Time to Award of Doctoral Degree • Destination of Research Student Leavers

Snowball Metrics shared in original Recipe Book, November 2012

Snowball Metrics shared in edition 2 of the Recipe Book, June 2014

Snowball Metrics shared in this edition of the Recipe Book, November 2017

Snowball Metrics

5.19 Sustainable Spin-Offs ❄

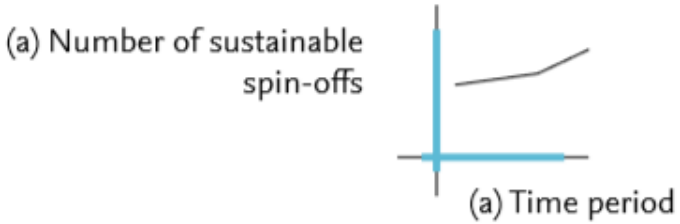
NUMBER OF SUSTAINABLE SPIN-OFFS

ENDORSED BY: UNITED KINGDOM.

5.19.1 Metric definition

This metric calculates the number of sustainable spin-offs.

It answers the question of how many companies that are high quality, and therefore sustainable, an institution has delivered.



5.19.2 Details

A spin-off is a company that has been set up to exploit intellectual property that originated from within the institution.

The types of spin-off counted in this recipe are those for which the definition is specific and not open to interpretation, and where the institutional data quality upon which the metric is based are relatively high. These are:

- A spin-off with some institutional ownership.
  A spin-off based on institutional intellectual property that is not owned by the institution.

5.19.3 Primary data sources

- Institutional intellectual property database or Current Research Information System (CRIS system)
- Published annual accounts
- National statutory reports, such as those available from the Higher Education Statistics Agency[172] (HESA) in the UK

Snowball Metrics

5.20.3 Primary data sources

- Institutional accounts system or Current Research Information System (CRIS system)
- Published annual accounts
- National statutory reports, such as those available from the Higher Educatio Statistics Agency (HESA) in the UK

5.20 Spin-Off-Related Finances

FINANCIAL BENEFITS DERIVED FROM ACTIVE SPIN-OFFS

ENDORSED BY: UNITED KINGDOM.

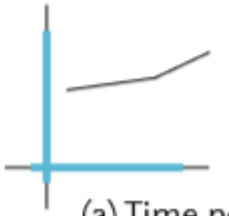
5.20.1 Metric definition

This metric calculates the financial benefits derived from an institution's active spin-offs.

It answers the questions of:

- How many jobs an institution is creating from its spin-offs.
- What economic return an institution delivers to its region and / or nation.
- How an institution is helping its companies to grow.
- The quality of an institution's spin-out companies.

(a) Number of FTEs employed by active spin-offs
(b) Turnover from active spin-offs
(c) External investment in active spin-offs



(a) Time period

Vertigo Ventures

- https://www.vertigoventures.com/

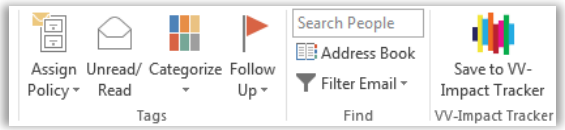
- There are other systems, eg:
  - Kudos: https://www.growkudos.com/
  - Evernote: https://www.fasttrackimpact.com/evernote
    – (Fast Track Impact)
  - ImpactStory: https://our-research.org/

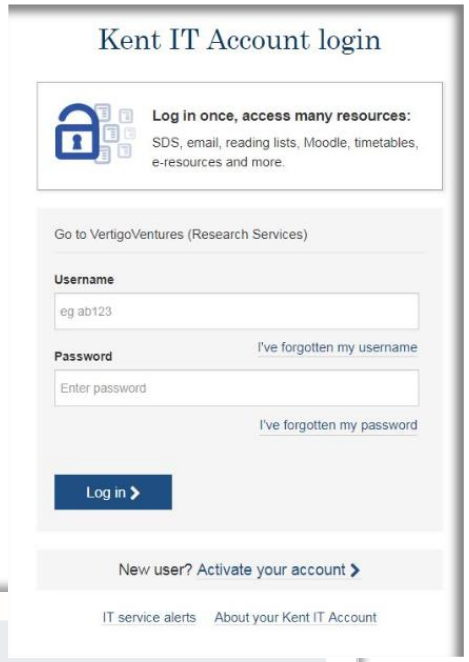
  - DCC: http://www.dcc.ac.uk/resources/how-guides/track-data-impact-metrics

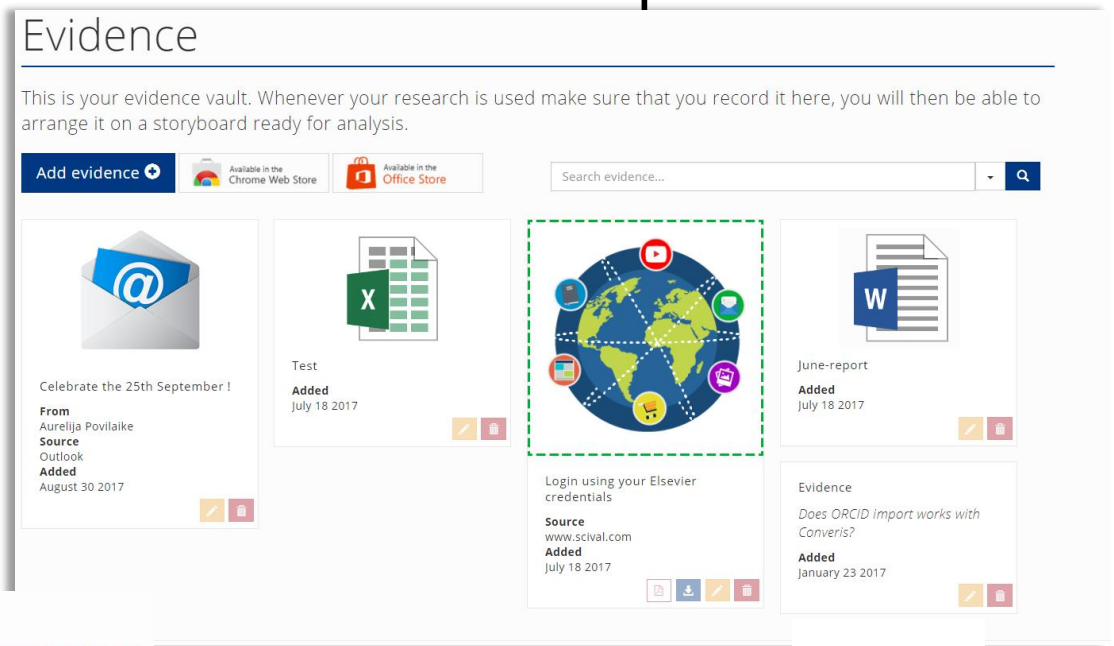
- Thanks to Renata McDonnell for these slides

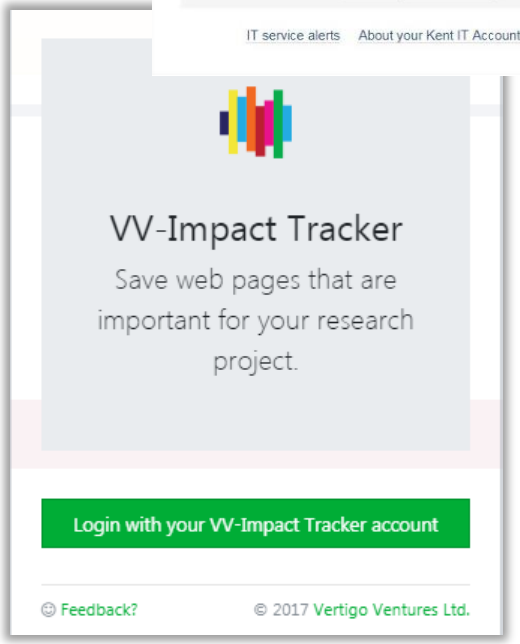
VV-Impact Tracker

- Single Sign On
- Intuitive
- Fast tracking impact
- Learning tool
- Fulfil evidence requirement









Recent Feedback

- *"I've been using VV impact tracker to help me prepare a pilot case study for the REF pilot. I find it very intuitive. I am particularly keen on the feature that allows you to add VV to the Google Chrome toolbar for easy downloads/clipping to the VV Venture's evidence vault."*

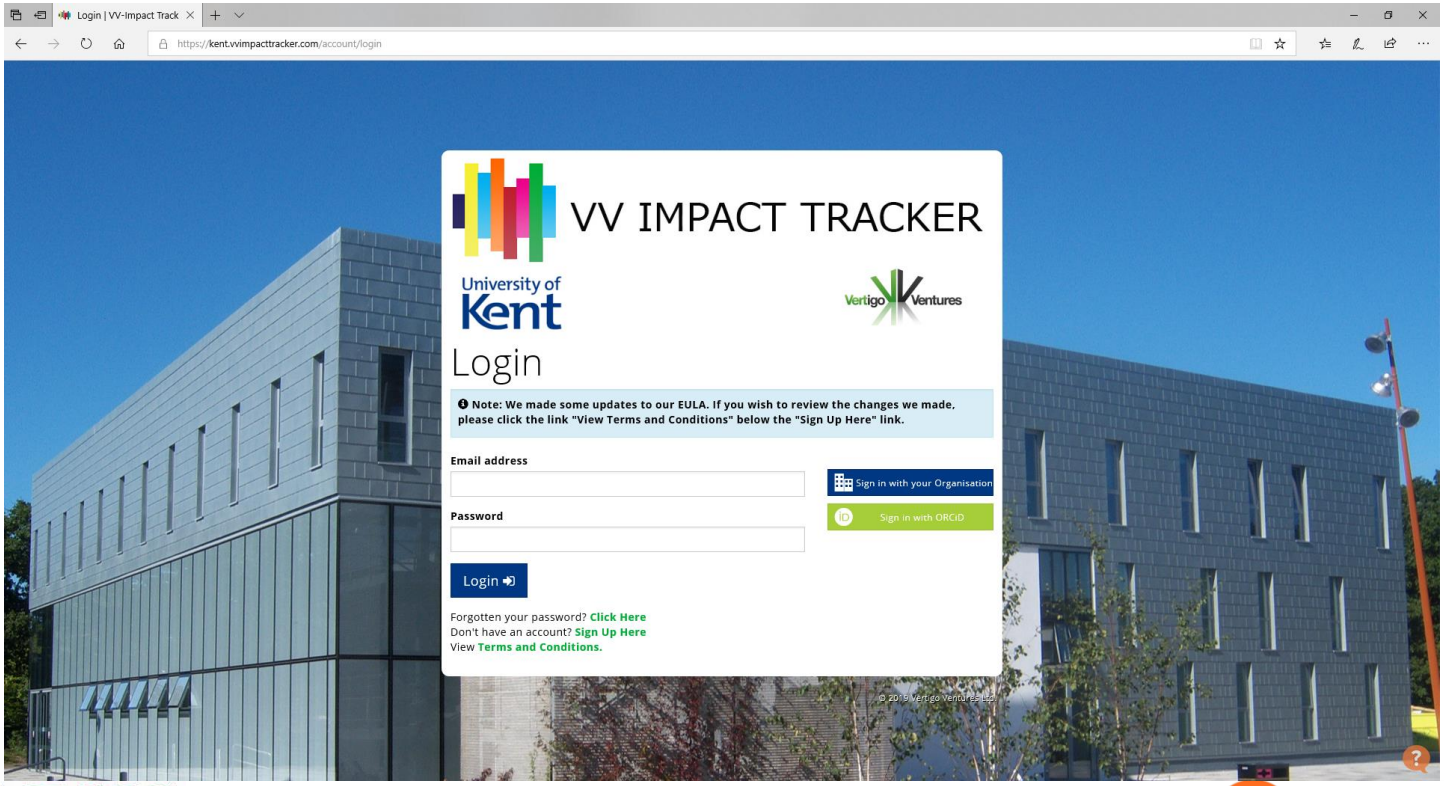
- *"Over all I think the system has a lot of potential. I've done a lot of impact recording and tracking for my work in the past (we were a case study in 2014)* ***and this software will definitely make it easier."***

How we support / engage with staff

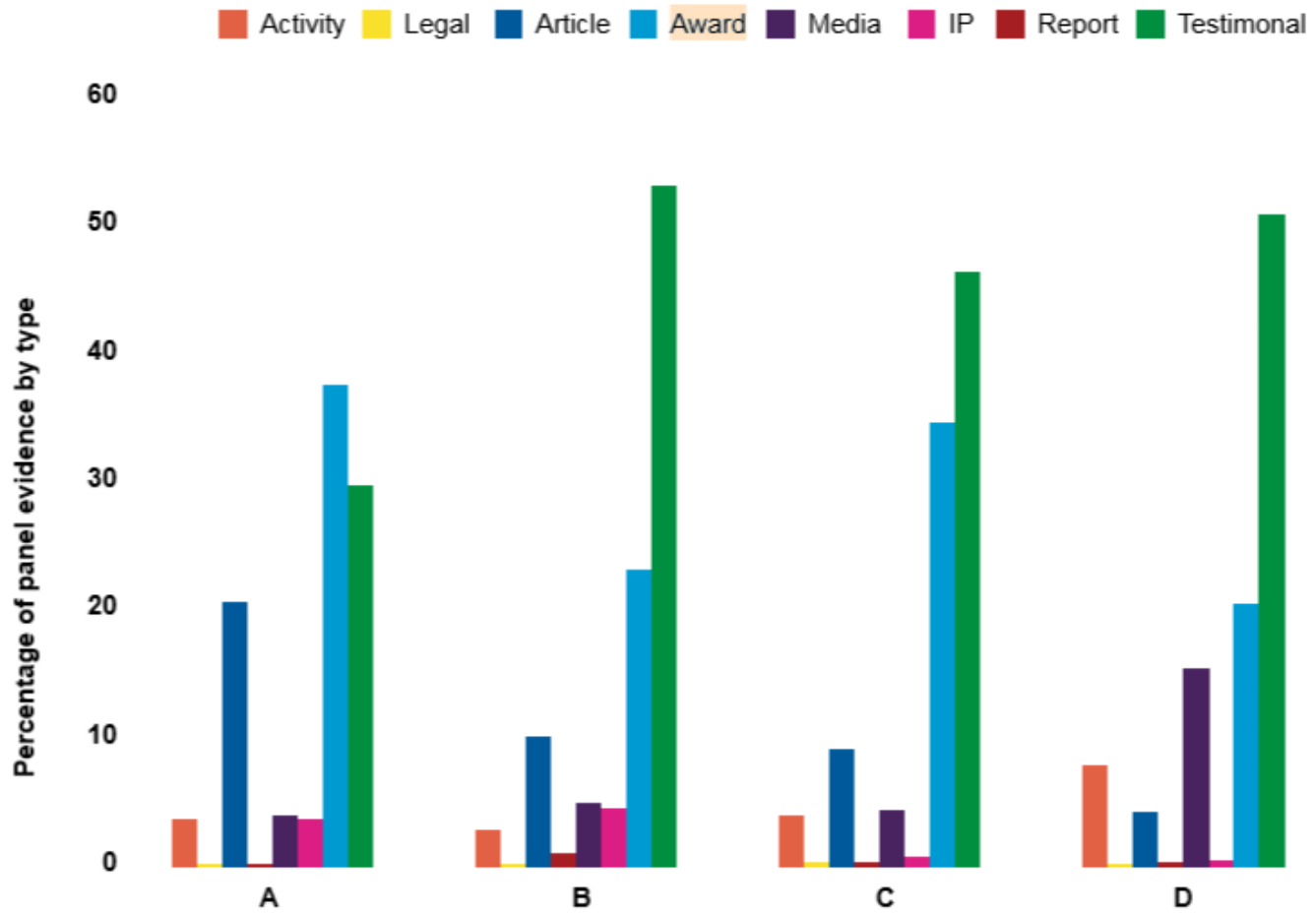
- Web resources
- Proactive and Responsive support
- Scheduled and bespoke training
- Engagement and support
  - VV, IS department
- Events to promote Impact
  - *i.e. Maximise Your Research Impact 2017 →*

Challenges

- New system
- Additional support in certain areas
- Providing training at the right time



Types of Evidence



Main Panel A: Biological Sciences and Medicine
Main Panel B: Physical Sciences and Engineering
Main Panel C: Social Sciences
Main Panel D: Arts and Humanities

http://www.vertigoventures.com/wp-content/uploads/2018/11/HEFCE-2016_05_CollectingResearchImpactEvidenceReport.pdf

Vertigo Ventures

- UN SDGs
  - The eleven optional SDGs that universities can report on are:
    - SDG #3: Good Health and Well-Being
    - SDG #4: Quality Education
    - SDG #5: Gender Equality
    - SDG #8: Decent Work and Economic Growth
    - SDG #9: Industry, Innovation and Infrastructure
    - SDG #10: Reduced Inequalities
    - SDG #11: Sustainable Cities and Communities
    - SDG #12: Responsible Consumption and Production
    - SDG #13: Climate Action
    - SDG #16: Peace, Justice and Strong Institutions
    - SDG #17: Partnerships for the goals

Vertigo Ventures (THE)

How is the ranking created?

A university's final score in the overall table is calculated by combining its score in SDG 17 with its top three scores out of the remaining 10 SDGs. SDG 17 accounts for 22 per cent of the overall score, while the other SDGs each carry a weighting of 26 per cent. This means that different universities are scored based on a different set of SDGs, depending on their focus.

The score from each SDG is scaled so that the highest score in each SDG in the overall calculation is 100. This is to adjust for minor differences in the scoring range in each SDG and to ensure that universities are treated equitably whichever SDGs they have provided data for.

Summary

- Why do you want to measure / assess impact?
- What data do you have / can you get?
- What is missing?

- Responsible Impact Culture…?
- How will you approach it?
- How will you embed it?
- How will you uphold it?

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