



An International Perspective on Public Impact and Engagement

Dianne Nagy, South Dakota State University
Andrew Wray, University of Bristol

NORDP 2015

Science and Society



Government

October 16, 2014

NSF-Ba
D



Rep. Lamar Smith, a Texas Republican and chairman of the House Committee on Education and the Labor Force, says taxpayers deserve explanations for the decisions involving hundreds of thousands of dollars.

[Enlarge Image](#)



Download
It Now



an escalating
House science
committee to find fault with the
National Science Foundation is
taking a growing toll on
researchers.

Most Popular

Most Viewed

Most Commented

1. Catholic Colleges Greet an Unchurched Generation
2. In Taste of Autonomy, Sports Programs Now Battle Athletes' Bellies

Shift to Applied Research Triggers Protests



Sean Kilpartick, The Canadian Press

Canadian scientists rally in Ottawa for restoring research spending.

The Big Picture





Session Outline

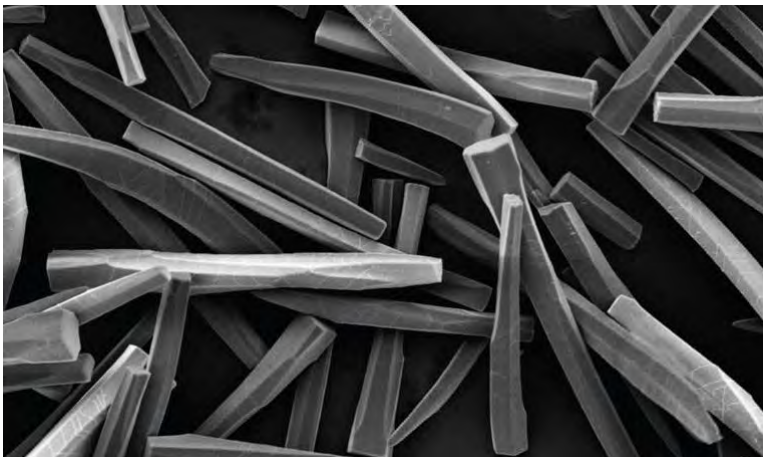
- Definitions and Examples
- Drivers
- Barriers
- Support structures
- Training and supporting researchers
- Discussion



DEFINITIONS AND EXAMPLES

Impact

- Demonstrable contribution that research makes beyond academia
 - To the economy, culture, national security, public policy or services, health, environment, quality of life, etc.
 - Return on investment for taxpayer



The lessons of multilevel modelling

8 May 2012

Multilevel statistical models developed by Professor Harvey Goldstein and Dr George Leckie show school league tables to be unreliable guides to school choice.

Dr George Leckie, Lecturer in Social Statistics at the Graduate School of Education explains, 'In the 1990s, league tables were only based on the percentage of children getting five A* to C grades at GCSE, but that is an unfair measure of school quality, as schools differ hugely in the ability of their student intakes, with some schools starting off with much higher-achieving pupils than others. You can't use the raw exam results as a measure of school quality, because you're not starting with a level playing field.'

So how do you produce fairer and more representative league tables? This is where the world of multilevel modelling enters the classroom. Multilevel models give statisticians tools to analyse individual behaviour taking account the different hierarchical contexts within which individuals operate. In the case of schools, you have students at the first level, at the second level are schools, and at the top level are the local authorities within which schools operate. By taking into account the fact that students do not learn independently and that their behaviour is influenced by the characteristics of their peer groups, teachers schools and local authorities you can go some way to providing a more well-rounded picture of a school's performance in a league table.

In 2006, the government introduced a 'contextual value-added' school performance measure to their league tables, derived from a multilevel model. This measure takes account of the differing achievements of students entering the school, as well as adjusting for a range of 'contextual' factors such as eligibility for free school meals and lack of spoken English at home.



Dr George Leckie Jason Ingram

Share this article



Composition for brass band: Gaia Symphony and Eden

12 February 2012

John Pickard, internationally-recognised composer in the Department of Music, has composed pieces for brass band to wide acclaim. Two pieces in particular, *Gaia Symphony* and *Eden*, have generated considerable attention from the mainstream and specialist press, attracting audiences across the globe.

"Gaia Symphony was completed during a three-year residency with Welsh brass band The Cory Band who premiered the piece at the 2005 Cheltenham International Festival of Music," said John. "Since January 2008, the piece has been taken up internationally including being broadcast by BBC Radio 3 and recorded commercially."

Gaia Symphony was composed over a period of more than 10 years, although the bulk of the work took place between 2001 and 2004. Comprising four movements, each of which may be performed separately, the individual sections were premiered by the National Youth Band of Wales, promoting the piece with young musicians (aged 13 to 18). There have been many different performances of the piece, including more recently at the 2011 Royal Northern College of Music (RNCM) Festival of Brass. The symphony's fourth movement, *Men of Stone*, was used as a test piece at the Australian Band Championships in 2002, and the whole symphony was performed in its entirety by Eikanger-Bjørsvik Band of Bergen, Norway, in 2011, making it the first non-British band to perform the complete work. They now plan further performances as well as a recording.

As a result of the success of *Gaia Symphony*, the Brass Band Heritage Trust commissioned John to compose another piece — *Eden* — for the final of the 2005 British National Brass Band Championship at the Royal Albert Hall, London. Recognised as a contemporary classic, *Eden*



Department of Music, Victoria Rooms

Share this article



Engagement

- Multi-directional dialogue about the science and technology impacting our daily lives
 - Characterized by mutual learning
 - May inform scientific investigations, institutions, and/or science policy



Community Based Research



Global Trends in Support Structures for Community University Research Partnerships

Survey Results - September 2014



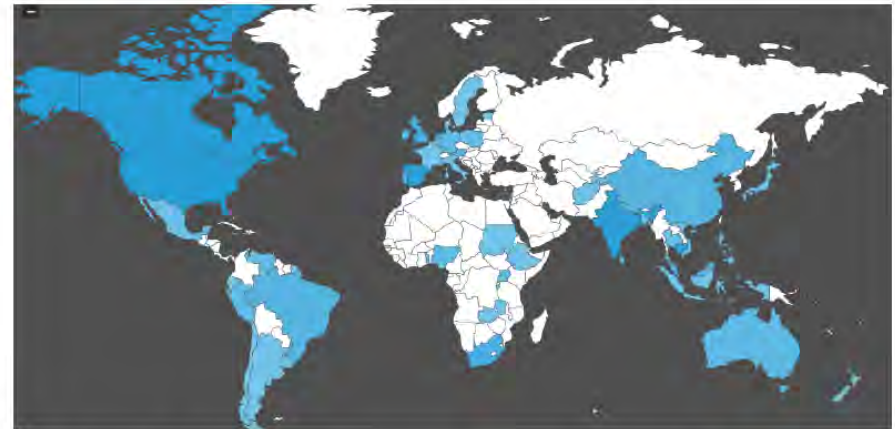
Photo Credits: PRIA, 2014

Prepared by

Crystal Tremblay, Budd Hall and Rajesh Tandon
UNESCO Chair in Community-based Research and Social Responsibility in Higher Education

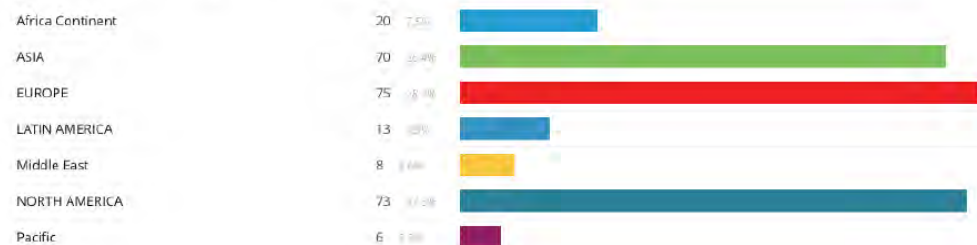
UNESCO CHAIR IN CBR

Map 1. Regional map of survey responses.



Geographically, we received responses from a diversity of countries and regions of the world. In addition to places that have strong CURP cultures (i.e. Netherlands, Canada), we also discovered these partnership structures to be present in less 'common' countries (i.e. Albania).

Table 1. Survey responses by region of the world.





DRIVERS

Impact – its not new

- Royal Society - 1662 Charter
 - *“promoting ... the sciences of natural things and of useful arts”*
- RCUK – health and wealth
- But increasing focus (UK) since 2008
- Requirement for funding (and funding explicitly provided) “pathways to impact” and formal collection of outputs and outcomes

Pathways to Impact

Academic Impacts

Worldwide academic advancement

Innovative methodologies, equipment, techniques, technologies and cross-disciplinary approaches

Contributing towards the health of academic disciplines

Enhancing the knowledge economy

Training highly skilled researchers

Improving teaching and learning

Improving health and well-being

Wealth creation, economic prosperity and regeneration

Enhancing the research capacity, knowledge and skills of public, private and third sector organisations

Changing organisational culture and practices

Enhancing the effectiveness and sustainability of organisations including public services and businesses

Attracting R&D investment

Improving social welfare, social cohesion and/or national security

Commercialisation and exploitation

Enhancing cultural enrichment and quality of life

Environmental sustainability, protection and impact

Evidence based policy-making and influencing public policies

Increasing public engagement with research and related societal issues

Economic and Societal Impacts

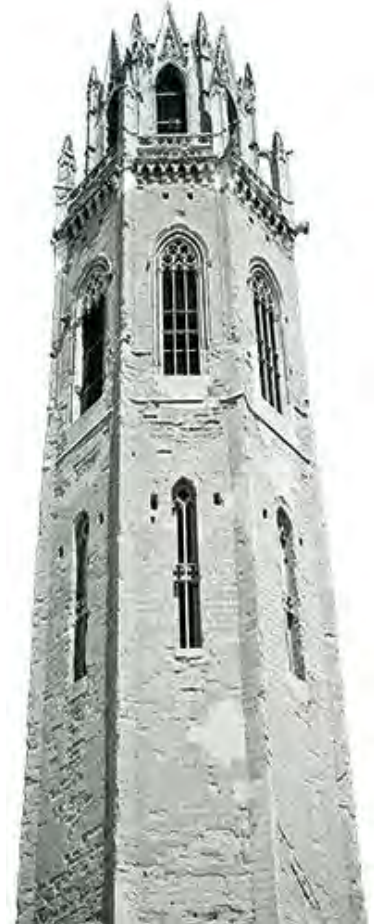
What is Impact (to funders)

- A clearly thought through Pathways to Impact statement is a condition of funding www.rcuk.ac.uk/ke/impacts/
 - project-specific and not generalized
 - flexible
 - focus on potential outcomes
- Researchers need to
 - identify and actively engage relevant users of research and stakeholders
 - articulate the context and needs of users
 - consider ways for the proposed research to address these needs, in short- or long-term
 - outline the planning and management of associated activities

The US NSF

“The [broader impacts] criterion was established to get scientists out of their ivory towers and connect them to society.”

~Arden Bement, former director of the NSF





America COMPETES

Reauthorization Act of 2010

- NSF must apply a BIC to
 - increase economic competitiveness
 - develop a globally competitive STEM workforce
 - expand national security
 - expand the participation of women and underrepresented minorities
 - increase partnerships between academia, industry, and others
 - improve STEM education at PK-12 and UG levels
 - increase public scientific literacy
- NSF and universities must provide training and support

In Australia...

- Policy makers want to know
 - the best way to measure research impact
 - how to direct public investments to produce the highest return
- Group of 8 ‘Backgrounder’...
 - Outcomes of research are unknowable in advance
 - Subsequent development and innovation also carry high risks
 - Only a small proportion of commercial ideas are successful
 - Even successful innovation is complex and iterative
 - “I have not failed. I have just discovered 10 000 ways that won’t work”
- Measurements of research impact should acknowledge the technical risks of the research and the commercialization and market risks



Sections navigation



Science with and for Society

[Promoting Gender Equality in
Research and Innovation](#)

[Ethics](#)

[Science Education](#)

[Public Engagement in
Responsible Research and
Innovation](#)

[Open Science \(Open Access\)](#)

[Responsible research &
innovation](#)

Find
Your area

Science with and for Society

[Article](#)

[Newsroom](#)

The aim of this programme is to build effective cooperation between science and society, to recruit new talent for science and to pair scientific excellence with social awareness and responsibility.

The 'Science with and for Society' programme will be instrumental in addressing the European societal challenges tackled by Horizon 2020, building capacities and developing innovative ways of connecting science to society. It will make science more attractive (notably to young people), increase society's appetite for innovation, and open up further research and innovation activities.

It allows all societal actors (researchers, citizens, policy makers, business, third sector organisations etc.) to work together during the whole research and innovation process in order to better align both the process and its outcomes with the values, needs and expectations of European society. This approach to research and innovation is called Responsible Research and Innovation (RRI).



Policy

Public Engagement

What is Public Engagement in Research & Innovation?

Public engagement in Horizon2020 implies the establishment of participatory multi-actor dialogues and exchanges to foster mutual understanding, co-create research and innovation outcomes, and provide input to policy agendas. It is about bringing on-board researchers, policy makers, industry and civil society organisations and NGO, and citizens, to deliberate on matters of science and technology. Public engagement also creates the space for ethical value-laden issues to be explored, while bringing inclusiveness, transparency, diversity, and creativity into the research and innovation process.

Furthermore, public engagement processes enable multiple actors to establish a common language, arrive at joint understandings, learn from each other, explore controversies, and co-create ideas, knowledge or solutions. To be of greatest impact, public engagement needs to be designed as a two-way process with feedback loops, so that the outcomes of the engagement processes are usefully fed back into the research and innovation process.

More Info

- [Special Eurobarometer Responsible Research and Innovation \(RRI\), Science and Technology](#): this 2013 study follows on from that of 2010 in addressing European citizens's general attitudes towards science and technology. More on public opinion [here](#).
- [Responsible Research and Innovation: European ability to respond to societal challenges](#): this leaflet is an introduction to RRI
- [Options for strengthening Responsible Research and Innovation](#): the report of the Expert Group on the state of the art in Europe on RRI (2013).



BARRIERS

PI Response to BI Criterion

political
ambiguous undermining
external
burdensome irrelevant
confusing
frustrating extraneous
punitive
counterproductive



Expertise

“My general feeling is that it is important to engage in broader impacts as a scientist, but I may not be the best person to implement them (and do not have the time to learn how and don't want to make it my focus). I wish there were a way to partner with experts in broader impacts so that we could work together, but each have expertise in one area - broader impacts and the intellectual merit of the science.”

Identity

- “And what of those of us in the humanities? Do we not provide a social benefit to humanity?”
- “Quantify it. If you can't justify the benefit of your work to taxpayers, you shouldn't expect them to provide support.”
- “The benefit of the humanities is not a matter of quantity, but of quality. The debased human life in which monetary gain is the only value is what the humanities intentionally resist, because they offer values that are intangible yet vital: memory and introspection, cultural identity and cohesion, compassion and empathy. To quantify such values is inherently to betray them.”

[HOME](#)[SEARCH](#)[ABOUT](#)[PARTICIPATE](#)[NEWS](#)[RESOURCES](#)

Science and Technology for America's Reinvestment Measuring the Effects of Research on Innovation, Competitiveness and Science

STAR METRICS[®] is a federal and research institution collaboration to create a repository of data and tools that will be useful to assess the impact of federal R&D investments. The National Institutes of Health (NIH) and the National Science Foundation (NSF), under the auspices of Office of Science and Technology Policy (OSTP), are leading this project.

[About STAR METRICS[®]](#)

News

Graduate Programs and their Participants

A map of graduate positions from 2012 data collected by the National Science Foundation (NSF) through a survey of degree-granting institutions called the Graduate Student Survey (GSS).

Measuring the Results of Science Investments

Science agencies and research institutions are building the infrastructure to evaluate results of federal funding of science research.

Vice President Biden, University Leaders Discuss Impact of Stimulus on Research and Innovation

Among American Recovery and Reinvestment Act's

How to Get Started With Level I

Get started learning about STAR METRICS[®] by visiting the following links:

[About STAR METRICS[®]](#)[Getting Started with Level I](#)[Employment Calculations](#)

Federal RePORTER

Federal RePORTER is an initiative of STAR METRICS[®] to create a searchable database of scientific awards from federal agencies and make this data available to the public.

[SEARCH](#)



I need to find out about:

Find



[Tips for searching this site](#)



[Search documents](#)

Higher Education Research

Research Impact Assessment

► [Resources](#)

Research Impact Assessment

For: All

The department has investigated options for the design of a university-based research impact assessment mechanism. The broad aims of this mechanism is to:

- provide an evidentiary basis for public investment in research
- increase incentives for universities to engage with research end-users
- improve understanding of pathways between research and innovation to inform policy.

Feasibility study

The 2011 [Focusing Australia's Publicly Funded Research Review](#) recommended that the department undertake a feasibility study on possible approaches for assessing the wider benefits arising from publicly funded research.

Undertaken in 2012, the study considered the findings of a number of reports that have made recommendations in relation to impact assessment; including:

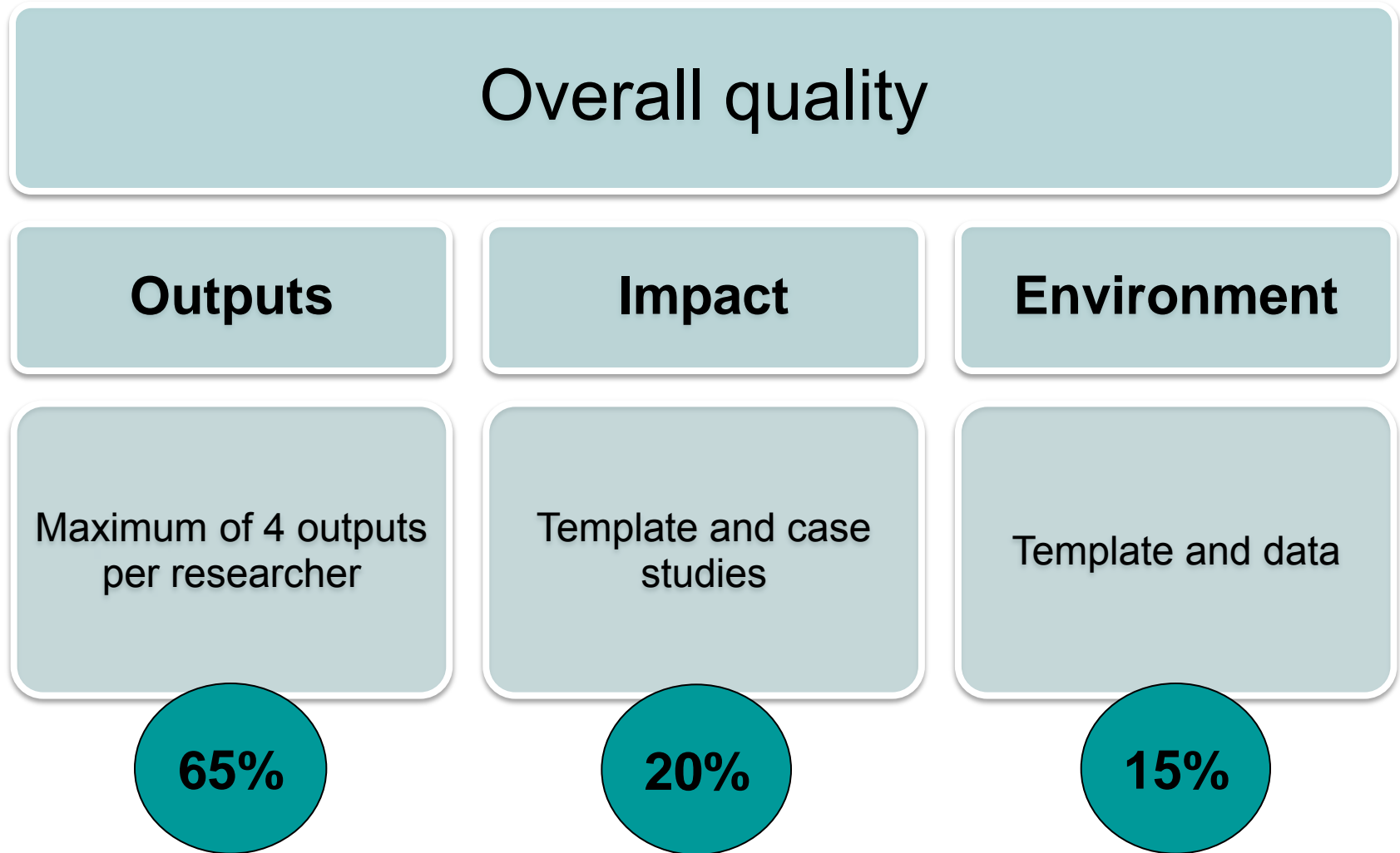
- [Research skills for an innovative future](#), the Australian Government's Research Workforce Strategy (Priority 6.2)
- [Smarter Manufacturing for a smarter Australia](#), the report of the non-

Research Excellence Framework

The REF is a UK-wide framework for assessing research in all disciplines. Its purpose is:

- To inform research funding allocations
- Provide accountability for public funding of research and demonstrate the public benefits
- To provide benchmarks and reputational yardsticks

Research Excellence Framework



REF - Overall rankings at Bristol

Unit of Assessment	Overall rank in Sector
UoA 2 (Public Health)	4th out of 32
UoA 7 (Earth Sciences)	2nd out of 45
UoA 8 (Chemistry)	4th out of 37
UoA 10 (Maths)	5th out of 53
UoA 17 (Geography)	1st out of 74
UoA 26 (Sport & Exercise)	1st out of 51
<i>Veterinary Sciences, Engineering, Economics, Law, Social Policy, Sociology, Education</i>	<i>Within top 10</i>

REF - Impact rankings at Bristol

Unit of Assessment	Impact rank in Sector
UoA 1 (Clinical Medicine)	100% 4* 1st out of 31
UoA 2 (Public Health)	100% 4* 1st out of 32
UoA 10 (Maths)	4th out of 53
UoA 15 (General Engineering)	5th out of 62
UoA 18 (Economics)	100% 4* 1st out of 28
UoA 23 (Sociology)	4th out of 29
UoA 26 (Sport & Exercise)	100% 4* 1st out of 51
<i>Dentistry, Neuroscience, Veterinary science, Management, Law</i>	<i>Within top 10</i>

Assessing Impact

- REF2014 Impact Case Study Database -
<http://impact.ref.ac.uk/CaseStudies>
 - >6,500 documents, searchable by subject = 'Unit Of Assessment'
 - compare between institutions and against national reference profiles and benchmarks
- Initial Analysis of Impact Case Studies -
www.hefce.ac.uk/analysisREFimpact/
 - Policy Institute at King's College London
 - Text mining and qualitative analysis to identify general patterns and thematic structures
 - Useful infographics, but read the caveats behind the methodology.
- Evaluation of Preparing Impact Submissions – RAND Europe
www.hefce.ac.uk/pubs/rereports/Year/2015/REFimpacteval/
 - Looked at submission preparation by universities, and assessment process by REF panels.
 - Median cost to produce a single case study was £7.5k
 - Average time to produce an impact case study was 30 days
 - Total cost to the universities for the impact element was £55M

Impact case studies as publicity

- Audiences include – internal academics, businesses, funding agencies, government, local community, potential students
- www.ucl.ac.uk/impact/case-studies - search by subject
- www.bristol.ac.uk/research/impact-stories/
- www.ox.ac.uk/research/research-impact/impact-case-studies
- www.gla.ac.uk/research/impact/impactsonsociety/

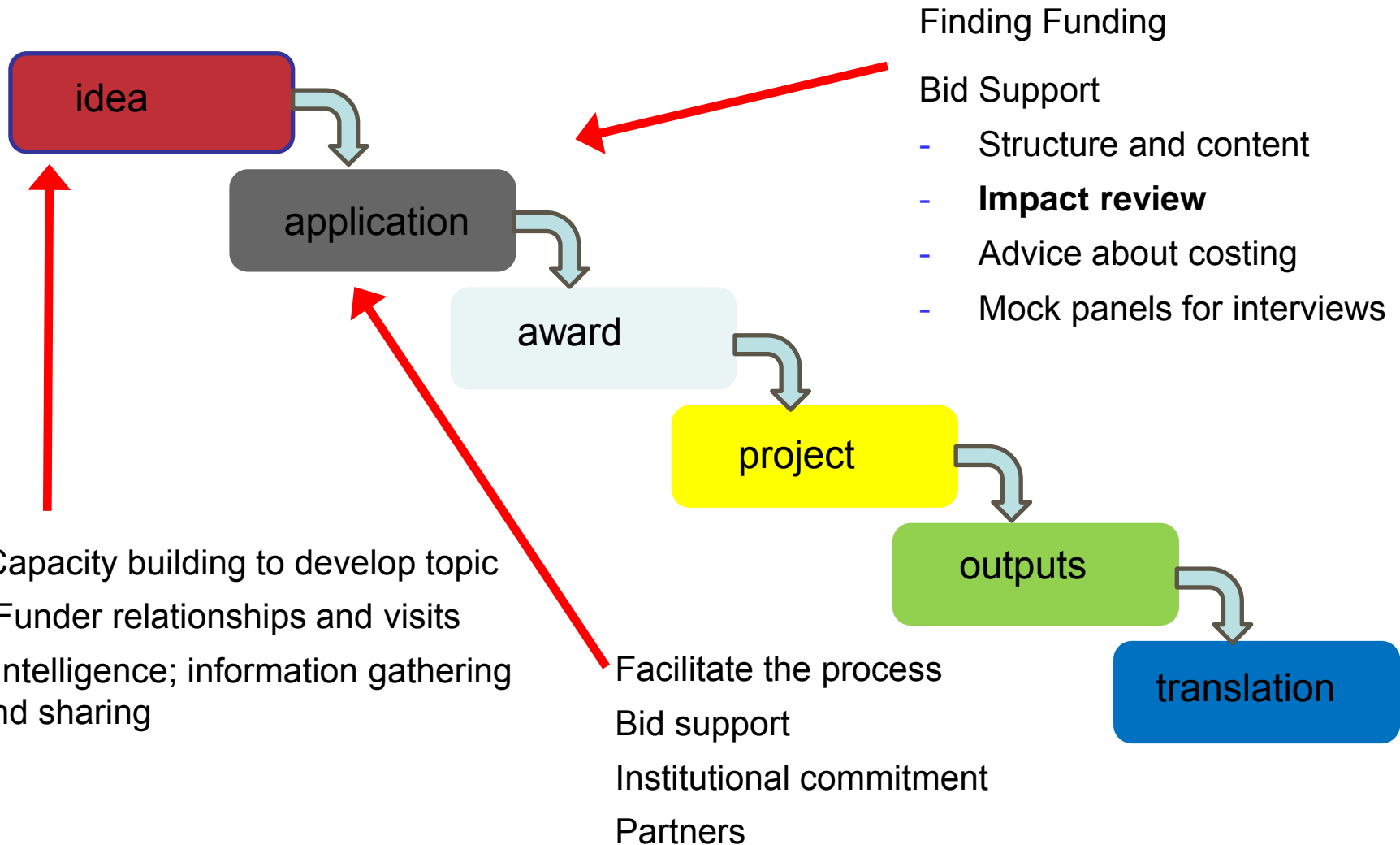


SUPPORT STRUCTURES

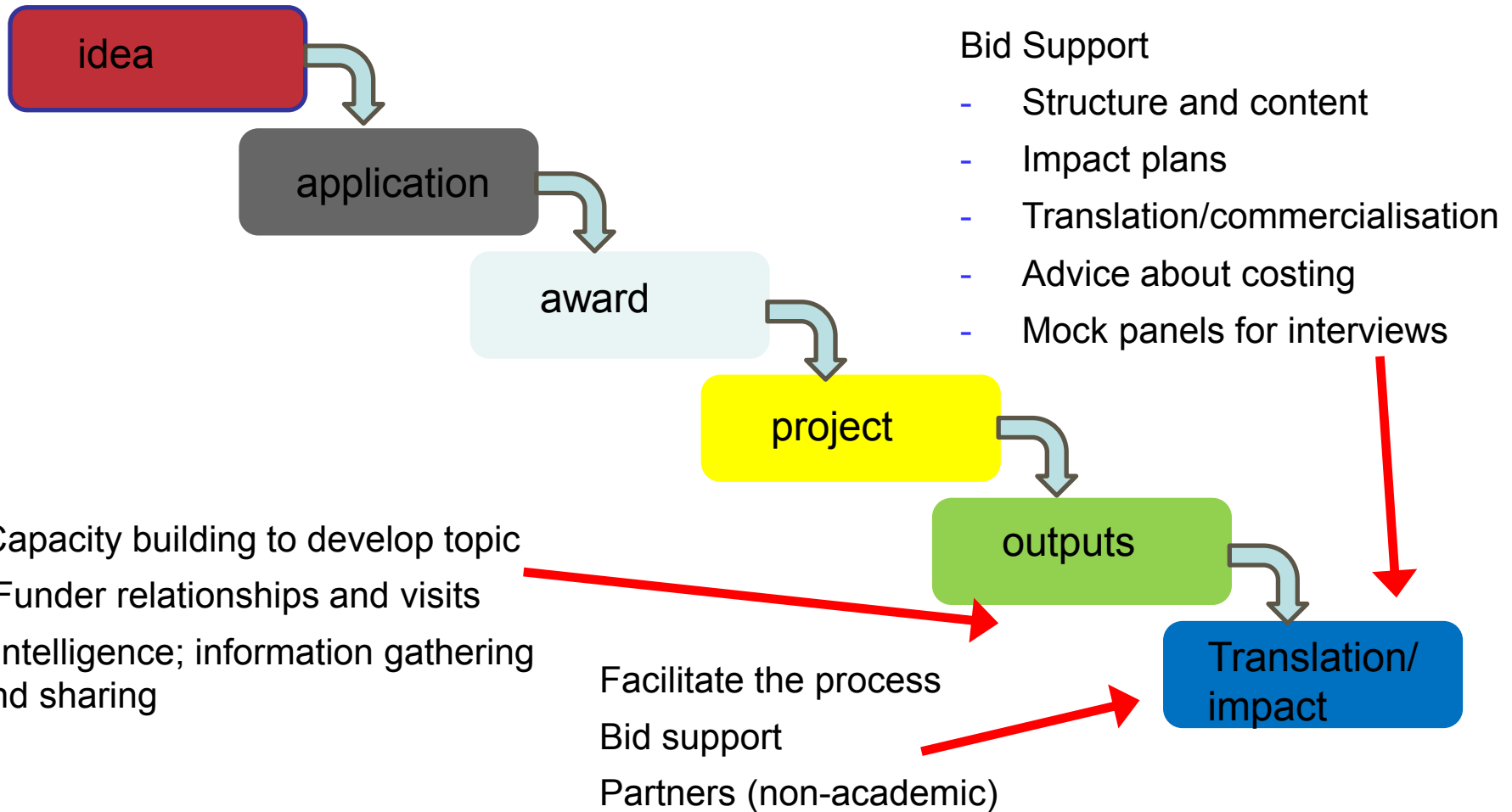
Supporting Roles

- Existing / Conventional Roles in UK Universities
 - Research Development Manager / Administrator
 - Technology Transfer Manager
 - Business Development Manager / Account Manager
 - Knowledge Exchange / Transfer Manager
 - Industry Liaison Manager
(often based in Faculty/Dept or focused on a Sector)
- New roles emerging since 2014....
 - Impact Officer
 - Combined roles e.g. Research & Impact Development Manager

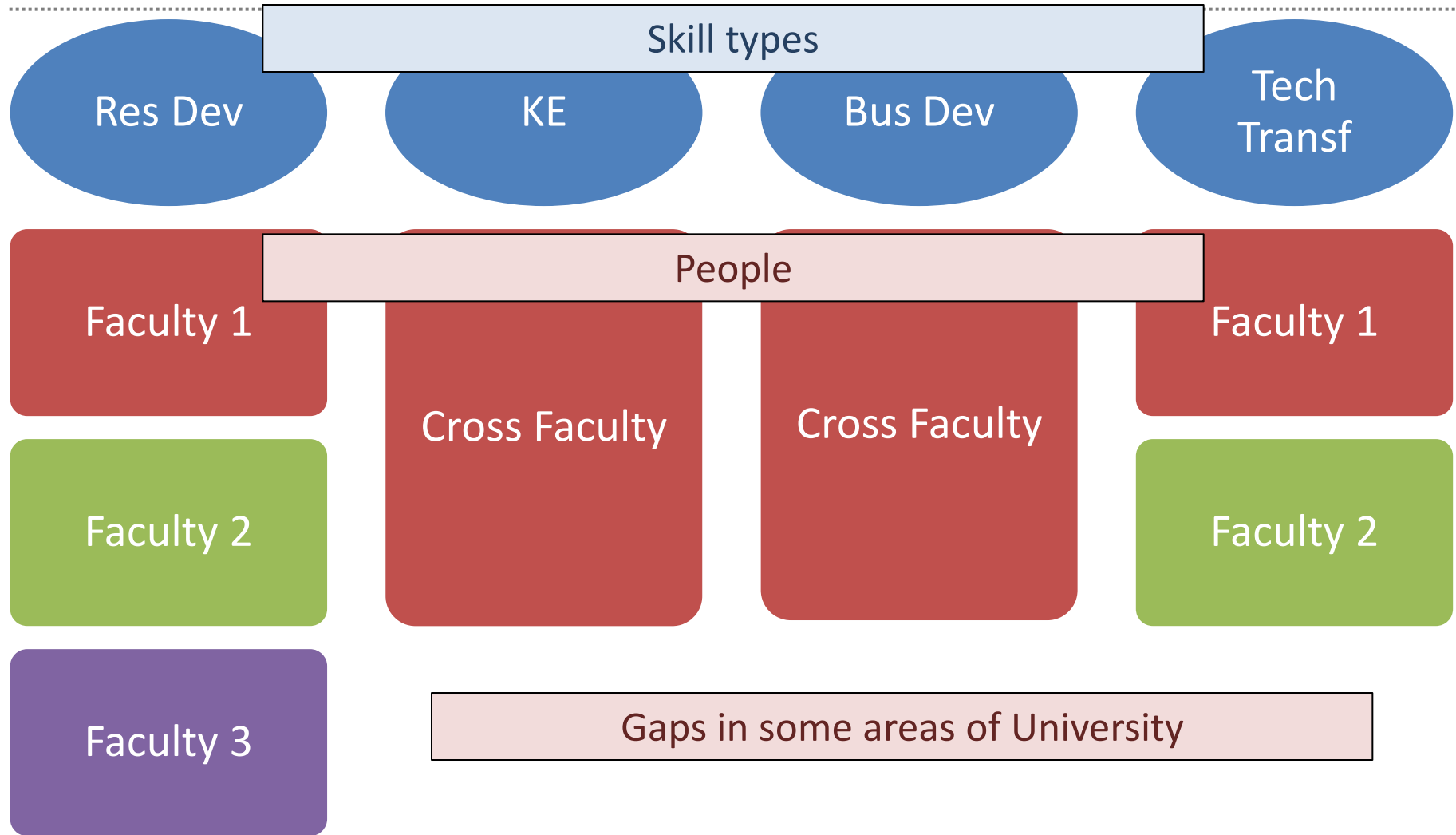
Research Development



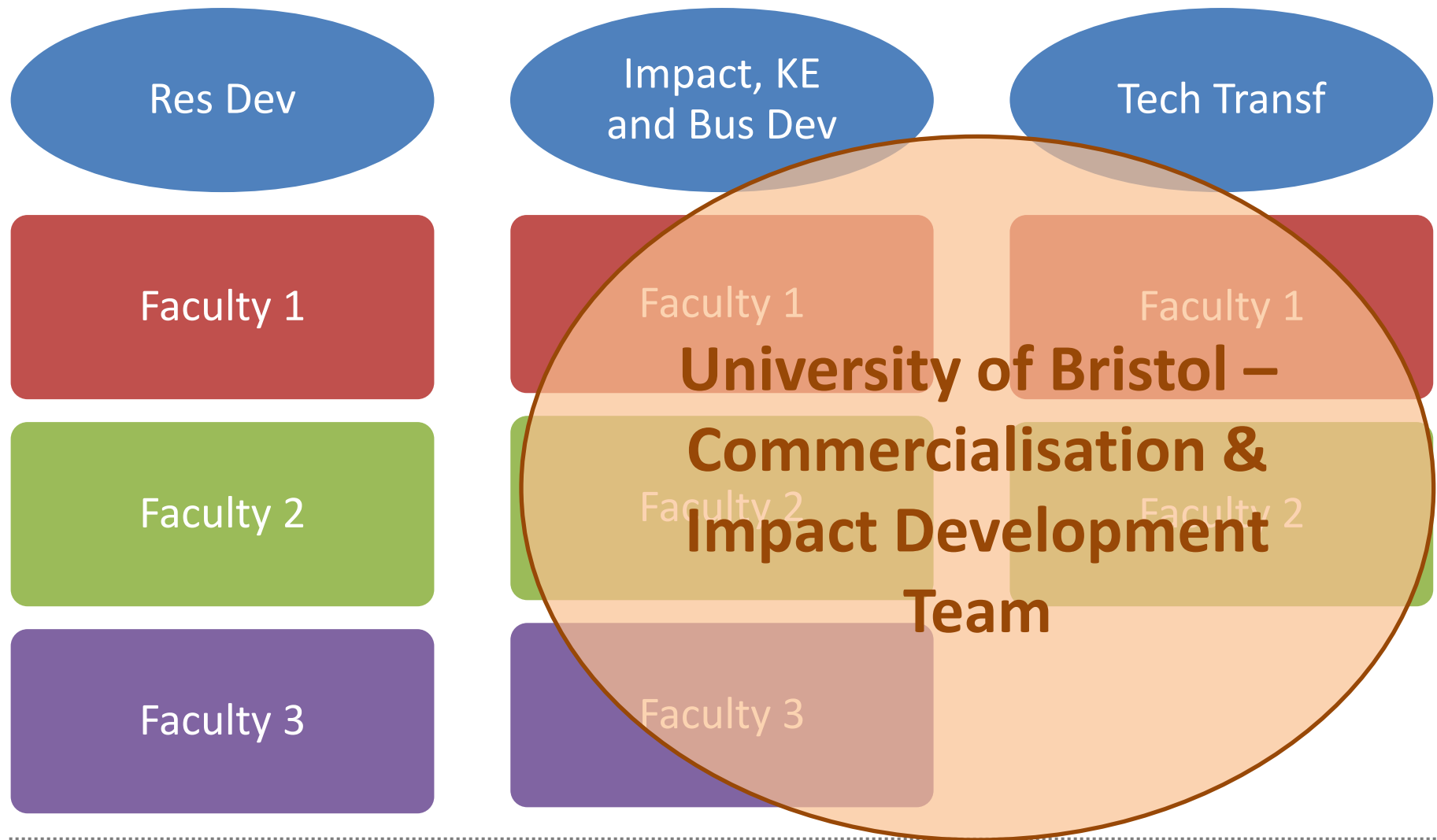
Impact Development



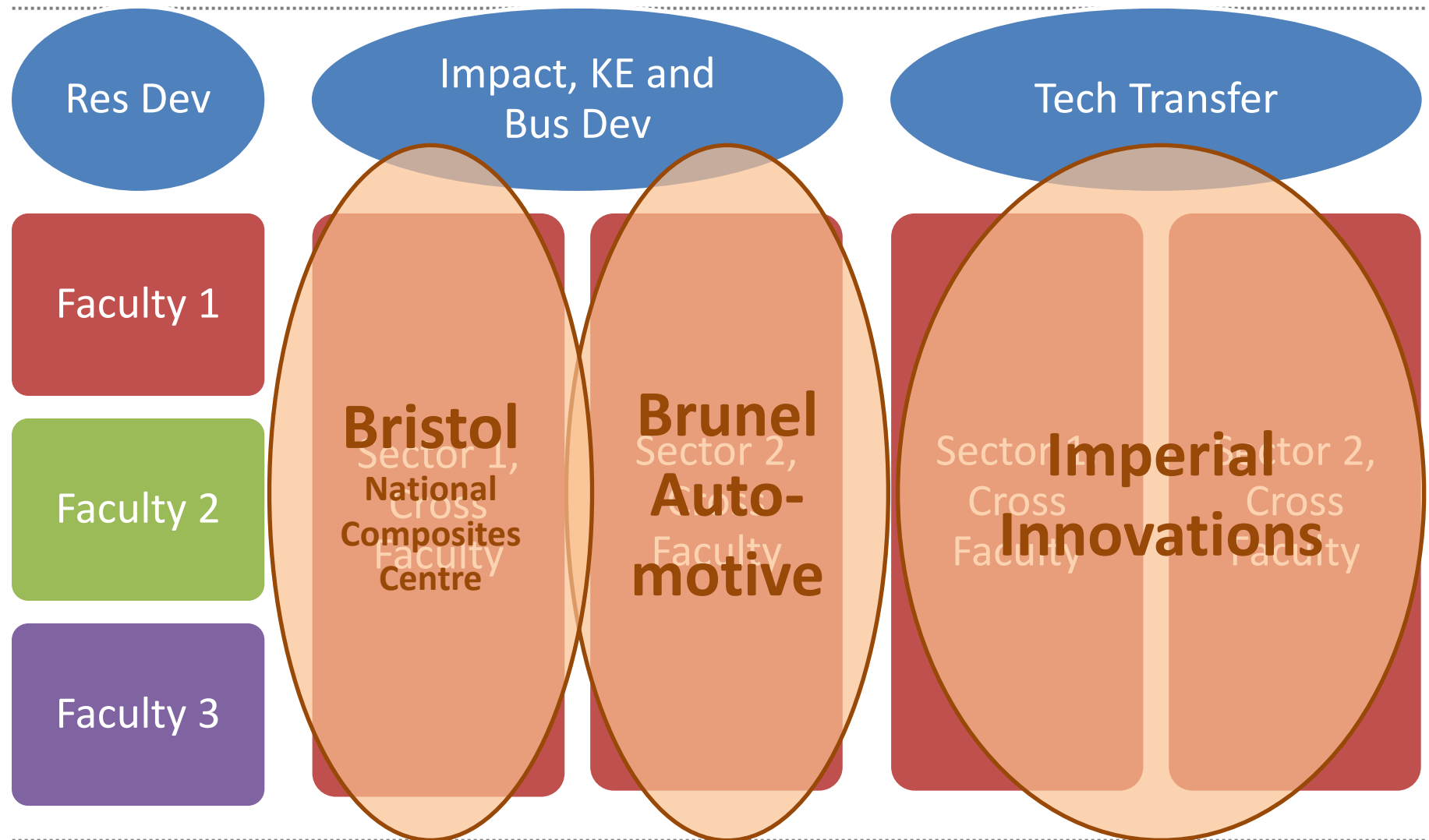
Research and Impact Support Structures



Research and Impact Support Structures



Research and Impact Support Structures



The Engaged University



Insights for impact support

- Culture
 - Internal groups can generate shared knowledge on impact
 - You probably have unmet demand, academic enthusiasm and momentum
 - Funding provides a motivation for impact training and sharing good practice
 - Create space and time to experiment – allow academics & companies to shape their collaborations
- Dovetail with institutional strategies
 - Align funding with Tech Transfer processes and teams
 - University Advisory Boards for impact / industry / sectors
 - Clearly defined points of contact at University or Faculty level
 - Allow different roles to evolve in different disciplines / sectors

Some challenges

- Structural challenges
 - Time commitment can increase hugely while in 'valley of death'
 - Lead times and delays e.g. researcher recruitment, fast pace of business
- Operational challenges
 - Contracts and IP negotiations - short term gain vs impact & collaboration
 - How much effort on project management and next steps?
 - Skills & contacts to engage with public, industry, NGOs, government...
- Cultural challenges
 - Academic time constraints and priorities
 - Widening participation beyond the usual suspects
 - Career progression – industry and impact can be good for research
 - A project is not an end in itself - achieving impact is a long-term game



Broader Impacts Network

Connecting Researchers and Resources in Unique Ways

<http://broaderimpacts.missouri.edu/>

We are Social !



How Do I...

- Learn about broader impacts
- Create a broader impacts plan
- Find someone to help me implement my broader impacts plan
- Evaluate my broader impacts activities

BIN Tweets

 **MU Fellowships** @MU_Fellowships 4h

At the @Mizzou_BI #MUBIResourceFair! Talk to us about research funding opportunities, including @NSF Fellowships! pic.twitter.com/j01qFaCT6H

Retweeted by MU Broader Impacts



Tweet to @Mizzou_BI



Campus Resources



Research Stories

Welcome to the Broader Impacts Network! The MU BIN was established in 2012 as a response to the National Science Foundation's emphasis on the integration of education and outreach into research projects. Our mission is to assist researchers in the development, implementation, and evaluation of high-quality broader impacts activities.

Getting Started

We have created several tools to help you on your journey to broader impacts stardom. Start out "How Do I" box on the left and choose which category best fits your needs:

- Learn about broader impacts
- Create a broader impacts plan
- Find someone to help me implement my broader impacts plan
- Evaluate my broader impacts activities

In addition to helping plan your educational and outreach activities, we also document the breadth of broader impacts activities at MU and can provide letters of support for your promotion and tenure portfolio.

Check out our broader impacts video!



Home

[About](#)[News & Updates](#)[Information for Faculty](#)[Resources](#)[Events](#)[Programs](#)

<http://www.spisu.iastate.edu/>

SP@ISU

Strengthening the Professoriate

Iowa State's Broader Impacts Resource

SP@ISU serves as a single point of contact on campus to gain knowledge in developing quality Broader Impact programs. SP@ISU helps make connections between researchers and resources on campus to develop and implement Broader Impact plans. The target audience is faculty, postdoctoral research associates, and advanced graduate students in science, technology, engineering, and mathematics (STEM).

The goal of SP@ISU is to strengthen the professoriate by enabling professional development in STEM, while promoting and enhancing a diverse community of scholars and learners.

[More about SP@ISU](#)

What are Broader Impacts and why are they important?

From the National Science Foundation

The project Summary will contain the following required separate statements: overview of the project, statement on intellectual merit, and statement on broader impacts. Annual and Final Reports must address activities related to the Broader Impacts criterion that are not intrinsic to the research. [NSF New Merit Review Criteria: Requirements for Proposals](#)

The Project Description must contain, as a separate section within the narrative, a discussion of the broader impacts of the proposed activities. Broader impacts may be accomplished through the research itself, through the activities that are directly related to specific research projects, or through activities that are supported by, but are complementary to the project. NSF values the advancement of scientific knowledge and activities that contribute to the achievement of societally relevant outcomes:

- Full participation of women, persons with disabilities, and underrepresented minorities in science, technology, engineering, and mathematics (STEM)
- Improved STEM education and educator development at any level
- Increased public scientific literacy and public engagement with science and technology; improved well-being of individuals in society
- Development of a diverse, globally competitive STEM workforce
- Increased partnerships between academia, industry, and others



Centers for Science Outreach

- Penn State
 - Center for Science and the Schools
 - <http://csats.psu.edu/>
- Vanderbilt University
 - Center for Science Outreach
 - <http://www.scienceoutreach.org/>
- Stanford University
 - Office of Science Outreach
 - <http://oso.stanford.edu/>
- Northwestern University
 - Science in Society
 - <http://scienceinsociety.northwestern.edu/>
- Yale University
 - Yale Science Outreach
 - <http://onhsa.yale.edu/science-outreach-home>

Schedule Now Online for Broader Impacts Summit 2015

Join us for the 2015 Broader Impacts Summit

[Sign up now!](#)



Want NABI Gear?

[Click here](#) to check out our new online store!

NABI Tweets



Kemi Jona
@KemiJona

13 Feb

Broader Impacts session at #AASmtg (3p in LL20C) featured by @NSF w/ @kjniemi and I from @NA4BI

[nsf.gov/news/news_summ...](https://www.nsf.gov/news/news_summ...)

Retweeted by N4BI

Expand



Geoff Hunt

13 Feb

Tweet to @NA4BI

Welcome to the National Alliance for Broader Impacts

NABI has its roots in the Broader Impacts Infrastructure Summit of 2013, held at the University of Missouri. BIIS 2013 was the first meeting of the national BI community. It was followed by a second Summit in Arlington, Virginia. A result of those meetings was the formation of an engaged and active community that is ready to create its own national organization.



INFORMALSCIENCE

[PROJECTS](#)[RESEARCH](#)[EVALUATION](#)[PERSPECTIVES](#)[COMMUNITY](#)

WELCOME TO INFORMALSCIENCE.ORG

An online community and collection of informal STEM learning projects, evaluation, and research resources.

[Read our welcome message.](#) 

SEARCH AND BROWSE INFORMAL EDUCATION RESOURCES ?



PROJECT
DESCRIPTIONS



EVALUATION
REPORTS



RESEARCH AND
EVALUATION
INSTRUMENTS



RESEARCH
PRODUCTS



REFERENCE
MATERIALS



CASE STUDIES
AND REVIEWS



INSTRUCTIONAL
MATERIALS



SOCIAL MEDIA
AND ONLINE
COMMUNITIES

[SEARCH BY KEYWORDS](#)

[OUTREACH FOR SCIENTISTS](#)

[PRINCIPAL INVESTIGATOR'S
GUIDE TO MANAGING
EVALUATION](#)

[ISE EVIDENCE WIKI](#)

Ecsite brings together more than **350 organisations** committed to inspiring people with science.

ecsitem
EUROPEAN NETWORK
SCIENCE CENTRES

Is your organisation active in science engagement? Join us.

benefits



367 members

236 SCIENCE CENTRES/MUSEUMS,
16 NATURAL HISTORY MUSEUMS, 3 AQUARIUMS/ZOOS,
35 PRIVATE COMPANIES, AND 77 OTHER ORGANISATIONS

members section

NEWS 13 March 2015

March e-news out >

Jobs, opportunity to get involved in a Horizon2020 project on nanotechnology, good reads, calls for papers... and fictional space pictures made of milk, cinnamon and cat hair. Read it [here](#).

NEWS 11 March 2015



Reach thousands of science engagement professionals

Advertise with Ecsite

advertisement

Ocean Scientist Broader Impact Wizard

Brought to you by [COSEE Networked Ocean World](#)

Broader Impact Wizard Introduction



COSEE NOW created the **Broader Impact Wizard** to help you develop a broader impact statement that will satisfy NSF Criterion II and fulfill your interest in communicating your science. The quick and easy five-step process will produce an outline of important points to include in your BI statement and will help frame discussions with your BI partners.

For more information about the wizard and an introduction to constructing effective broader impact projects, please view the video.

[Funding and guidance](#)[Impacts and findings](#)[Collaboration](#)[Public engagement](#)[News, events and publications](#)[About us](#)[Funding opportunities](#)[Postgraduates](#)[Guidance for applicants](#)[Guidance for grant holders](#)[Guidance for large initiatives](#)[Peer review](#)[Impact toolkit](#)

You are here: ▶ [Home](#) ▶ [Funding and guidance](#) ▶ [Impact toolkit](#)

Impact toolkit

Our Impact Toolkit gives you everything you need to achieve the maximum impact for your work. The toolkit includes information on developing an impact strategy, promoting knowledge exchange, public engagement and communicating effectively with your key stakeholders.

The ESRC expects that the researchers it funds will have considered the potential scientific, societal and economic impact of their research.

Related links

[▶ Impact case studies](#)

Share this page



Impact - what, how and why?



To find out more about impact, including how to make an impact with your research and what the benefits are, follow the links below:

- ▶ [What is impact?](#)
- ▶ [Why make an impact?](#)
- ▶ [What the ESRC expects](#)

Maximising impact



A step-by-step guide to maximising impact.

- ▶ [How to maximise impact](#)
- ▶ [Developing a strategy](#)

The tools for impact



Tools and tips to help you maximise impact.

- ▶ [Impact tools](#)

Resources



Maximise your impact through promoting knowledge exchange and public engagement.

- ▶ [Knowledge exchange](#)
- ▶ [Public engagement](#)

Contacts and help



Useful websites and publications to help you maximise impact.

- ▶ [Impact resources](#)
- ▶ [ESRC Pathways to Impact for Je-S applications](#)



You are here: [Home](#) / [Impact](#) / Knowledge Exchange Guidelines

KNOWLEDGE EXCHANGE GUIDELINES



The LWEC Knowledge Exchange (KE) Guidelines have been developed to aid the KE process across all activities endorsed by the LWEC Partnership. A version suitable for printing can be downloaded as a pdf below. What follows is an online version of the guidelines which we are hoping to develop as a dynamic resource bank with plenty of shared experience through case studies and interviews with KE practitioners.

You will find the same top level guidance in the printed version but the online version allows you to choose links to material which can help you with specific parts of your KE strategy.

The guidelines are not prescriptive. Their aim is to inform and inspire with a resource bank of ideas, tips and suggestions on how KE can be most effective.

Effective KE is crucial to the success of the Living With Environmental Change (LWEC) Partnership, which aims to *"ensure that decision-makers in government, business and society have the foresight, knowledge and tools needed to mitigate, adapt to and benefit from climate change."*


By establishing a two-way flow of knowledge between researchers and potential users of their research, and ensuring a clear, mutual understanding of needs and priorities, LWEC initiatives will have a more meaningful impact on decisions, actions and behaviours in the years ahead.

Although these Guidelines are primarily aimed at people taking decisions at a programme level, it is hoped that they will provide useful ideas and principles for **anyone** involved in KE and complement guidance available from other sources, such as Research Councils UK (see attachment below).

The Guidelines are divided into the following eight components, each of which represents a key stage in a successful KE process.

KE GUIDELINES

- [1. Target](#)
- [2. Design](#)
- [3. Engage](#)
- [4. Facilitate](#)
- [5. Share](#)
- [6. Impact](#)
- [7. Sustain](#)
- [8. Evaluate](#)

Attachment	Size
 Guidance available from the Research Councils and their funded programmes.pdf	46.45 KB



**Explore
it**

**Support
it**

**Plan
it**

**Do
it**

**About
us**

**Work
with us**



[View case study](#)

< **We are the national co-ordinating centre for public engagement**

< **Public engagement training**

Case study of the week

In this week's case study we're looking at the Carnival of Lost Emotions, which explores the history of feelings & how people thought about passions and emotions in the past. Read more about this fascinating project.

[View case study](#)

< **Self assess your institution with the EDGE Tool**

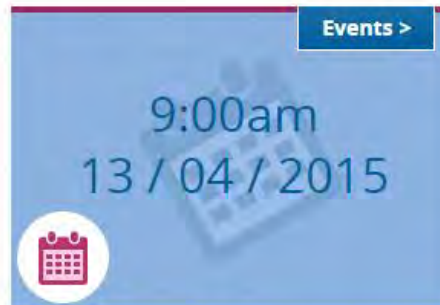
< **Manifesto for public engagement**

The NCCPE seeks to support a culture change in universities. Our vision is of a higher education sector making a vital, strategic and valued contribution to 21st-century society through its public engagement activity.



[Blog >](#)

**We need to talk about
*****: Public
engagement for "taboo"
topics**



[Events >](#)

**UK Knowledge
Mobilisation Forum
2015**



[News >](#)

**Job: Public Engagement
and Training Officer in
Biomedical Sciences,
University of Aberdeen**



TRAINING AND SUPPORTING RESEARCHERS

2014

Broader Impacts Intensive Training & Resource Fair

October 2nd, 2014
Bond Life Sciences Center

Register NOW! :
<http://broaderimpacts.missouri.edu/>



schedule

8-9am
Broader Impacts 101

9-10am
Making an Extension Connection in Your Research

10:30-12pm
Concurrent Sessions: K/12 Education, Web & Social Media,
Business Development/Tech Transfer, Legislative Outreach

12-1pm
Broader Impacts Resource Fair

1-2pm
Evaluating Your Broader Impacts

2-3pm
NSF Rotator & Reviewer Panel



Research and Innovation Services

Research and Innovation Services

Project services

[Our services](#)

[Funding opportunities](#)

[Best practice in JYU](#)

[Success stories and examples](#)

► Training

[Experts](#)

Innovation services

Legal Services

Personnel

Suomeksi

► Research and Innovation Services

► Training sessions

► Training materials

► Financer events

▼ Impact clinic

Time: Upon reservation, suggest a time suitable for you

Place: Agora, room AgC 513.1

How to make an effective funding proposal? In the Impact clinics you can refine your research idea. Funding organisations, especially EU and Tekes, require a clear description and plan for the use of research results, as well as a clear description of results and impacts in the project proposal. At the clinics, you will get support from your peers, tools for writing the project proposal and sparring from the funding and innovation advisors. To receive preparation funding from the Science Council for EU/H2020 projects, participation is obligatory. For more information, see the [Science Council's preparation funding](#).

Welcome to the impact clinics!

For more information, contact Funding Advisor Lasse Löytty, ture @jyu.fi, tel. +358 40 805 4987 (internal tel. 4533)

To get the most benefit from the clinics, you are asked to prepare a pre-assignment for the clinics.

- For the first clinic, we wish you to prepare a [One Page Proposal](#) in which you describe your project idea and its results according to the funding instrument's requirements. Prepare to give a five-minute speech about your project idea.
- For the second clinic we wish you to prepare a [Who took my money](#) assignment and model the [Big Picture](#) of your research project: How the results of your research project are used in practice in short and long-term periods.
- In order to get better feedback, please send your pre-assignments before your clinic to ture@jyu.fi. Please remember that it is beneficial to participate at least in two clinics, so please reserve time for them in your calendar.

► Commercialisation clinic

Communication





Workshops, Trainings & Briefings

WORKSHOPS

COMPASS brings together scientists, policy-makers, non-governmental organizations (NGOs), and other stakeholders to facilitate dialog on policy-relevant science issues.

Our workshops and working groups range from small gatherings to large, long-term efforts. [Learn more](#) about workshops and meetings that we have led or helped develop.

TRAININGS

COMPASS helps scientists communicate their work in a concise, lively manner that will get the attention of non-scientists including journalists and policymakers.

Our trainings are customizable, highly interactive, and range from one-on-one tutorials to multi-day workshops for large conferences. [Learn more](#) about our trainings.

BRIEFINGS

COMPASS connects science to policymakers and resource managers by organizing meetings and briefings for state and federal agencies and legislators.

Our briefings help inform decision makers about the latest scientific research and accelerate the pace of solving important conservation problems. [Learn more](#) about these briefings.

Recognition for Research Impact

- Institutional
 - Monash University (Australia)
 - Swansea University (Wales)
- National organizations
 - APLU Community Engagement Scholarship
 - AAAS Public Engagement with Science
- Federal
 - NSB Public Service
 - Queen's Anniversary Prizes



CONCLUSIONS















Contact Information



Email:

Dianne.Nagy@sdsstate.edu

Skype: dianne.nagy

Phone: 605-688-5051



Email:

Andrew.Wray@bristol.ac.uk

Skype: amwray68

Phone: +44(0)117 95 46968