



AESIS

NETWORK FOR
ADVANCING & EVALUATING THE SOCIETAL IMPACT OF SCIENCE

Allianz Forum – 5-7 June 2019

*Welcome to the seventh international **AESIS** conference on*

Impact of Science



Rotunde, 9:00-10:10

What did we achieve on the first day and how does it relate to the second day programme?

Conference Chair: *Prof. Luc Soete*

Rotunde, 09:15-10:10

**Plenary Opening:
Structures to foster impact**

James Wilsdon

Richard van de Sanden

Birgitta Wolff



Impact of Science

5-7 June 2019, Berlin

Plenary opening: Policies for impact

James Wilsdon

*Vice Chair of INGSA & Professor of
Research Policy at the University of Sheffield, UK*



From critique to co-design: fostering the impacts of social science

James Wilsdon @jameswilsdon
AESIS Impact of Science 2019
Berlin, 5-7 June 2019

In this talk, I want to explore:

- **The new research landscape**
- **Five reasons to be cheerful**
- **Eight priorities for future work**



THE NEW RESEARCH LANDSCAPE



English EN

Search

Home > Horizon Europe - the next research and innovation framework programme

Horizon Europe - the next research and innovation framework programme

How Horizon Europe is being designed, legal framework, factsheets, reports and timeline.

PAGE CONTENTS

The Commission's proposal for Horizon Europe

Pursuing a mission-oriented policy approach

Reports and materials that shaped the proposal

Public input to the proposal

Adoption timeline

The Commission's proposal for Horizon Europe

The Commission has published its proposal for Horizon Europe, an ambitious €100 billion research and innovation programme that will succeed Horizon 2020.

The proposal was made as part of the EU's proposal for the next [EU long-term budget](#), the multiannual financial framework (MFF).

Various building blocks were taken into account including the interim evaluation of Horizon 2020, the Lab-Fab-App report (informally the Lamy report), foresight studies and various other reports.



MISSIONS

Mission-Oriented Research & Innovation in the European Union

A problem-solving approach to fuel innovation-led growth

by Mariana MAZZUCATO

COMMENT



A rocket ferries four of the European Union's Galileo navigation satellites into space.

Europe the rule-maker

Proactive, cosmopolitan and open, the European Union is filling a leadership void on the global stage, argue **James Wilsdon** and **Sarah de Rijcke**.

Last month, in their final session before elections, a thumping majority of members of the European Parliament approved the legislative package for the European Union's next programme for research and innovation, Horizon Europe. Arguments will rage for another six months about the size of its budget — now pencilled in at €94 billion (US\$106 billion) by the European Commission and member states. Such ritual debates are important, but they can obscure a greater achievement.

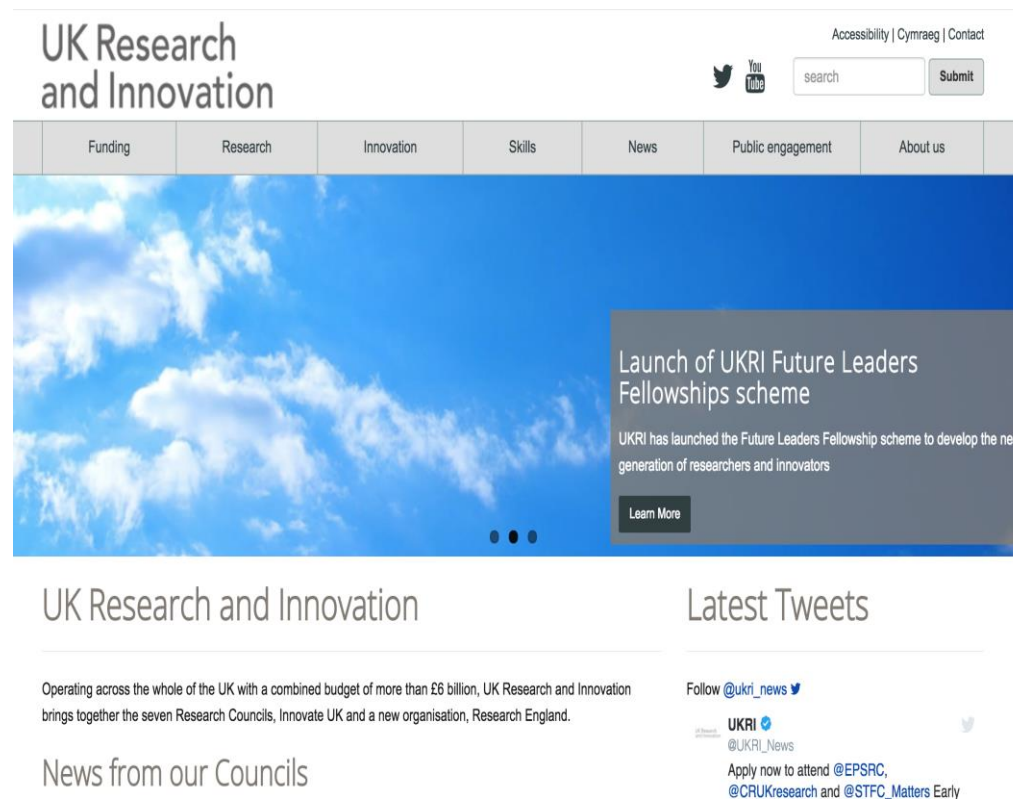
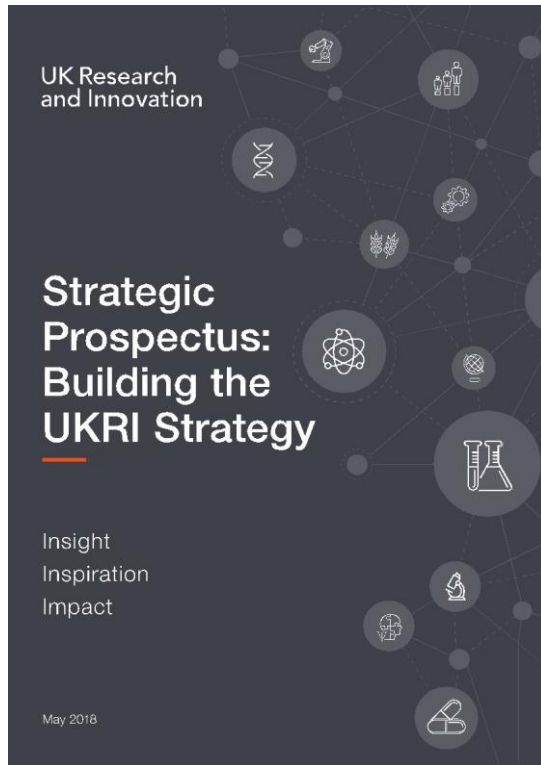
Over the past decade, there has been a palpable shift in the scale of Europe's influence over the governance and direction of global research. And its ambition doesn't stop there: the EU also wants to lead the world's approach to a host of policy agendas informed by science, including climate change, chemicals regulation and data protection.

A more proactive Europe is filling a void in international scientific leadership. This has been created by the United States' retreat from multilateralism under President Donald Trump, which affects science, as many other spheres. China is struggling to switch its emphasis from research quantity to addressing thornier issues of scientific quality, ethics and integrity. And the United Kingdom's exit from Europe will blight its political and research systems for the next decade.

Since their introduction in the early 1980s, the European framework programmes for research and innovation have steadily grown in budget and complexity. Their focus has also evolved: from supporting research and development (R&D) linked to a handful of industrial sectors, to promoting research coordination and cohesion, and strengthening capacity, mobility and infrastructure across the EU member states¹.

Today, the most striking feature of the programmes is the extent to which they are designing and embedding the operating principles for research across Europe and, by default, the wider world. These principles range from open science and open data to the alignment of R&D with societal priorities and global goals. To achieve this with a budget that amounts to only about 1.0% of the total public investment in R&D across EU member states is even more remarkable.

As Europe's scientific community ▶



“The increase we are aiming for would represent the equivalent of 4 new Rolls-Royces, 4 new GSKs and 4 new Oxford Universities, together with making Manchester and Birmingham as R&D-intensive as the East of England. And a new Tech City for good measure. In short, it represents a transformation of the economy for the better.”

Sam Gyimah MP, Former Minister for Universities and Science, July 2018

SSH-Impact Pathways and SSH-Integration in EU Research Framework Programmes.

Thomas König

April 2019

In remembrance of
Philippe Keraudren (1963-2017)

Abstract

This Working Paper builds on the scientific discourse on valuation of SSH research as well as SSH-integration in EU framework programmes and aims at summarizing the key findings from the November 2018 Austrian EU Presidency Conference “Impact of Social Sciences and Humanities for a European Research Agenda – Valuation of SSH in mission-oriented research”. It deals with the topic in three instalments. First, it will discuss recent trends in research funding. Second, it provides a brief historical overview of the efforts of integrating SSH into the EU Research Framework Programme. It then adds some observations about continued challenges in SSH. Finally, it will conclude with some suggestions for SSH scholars, based on the discussions from the conference. In that regard the Working Paper is also a document for further reading for those who have read earlier, shorter texts that were published in preparation of that conference.

Keywords

SSH research; social sciences; humanities; research policy; Horizon 2020; Horizon Europe; European integration



“We argue that the time has come to move from a purely defensive stance...Social Sciences & Humanities have to look at “impact” in a different way – the term needs to be “re-loaded” with a renewed sense of responsibility and reflecting a different self-image of their role and position in society.”

*Thomas König, Helga Nowotny
& Klaus Schuch*

Are we up to this task?

Sunday Review

Let's Shake Up the Social Sciences

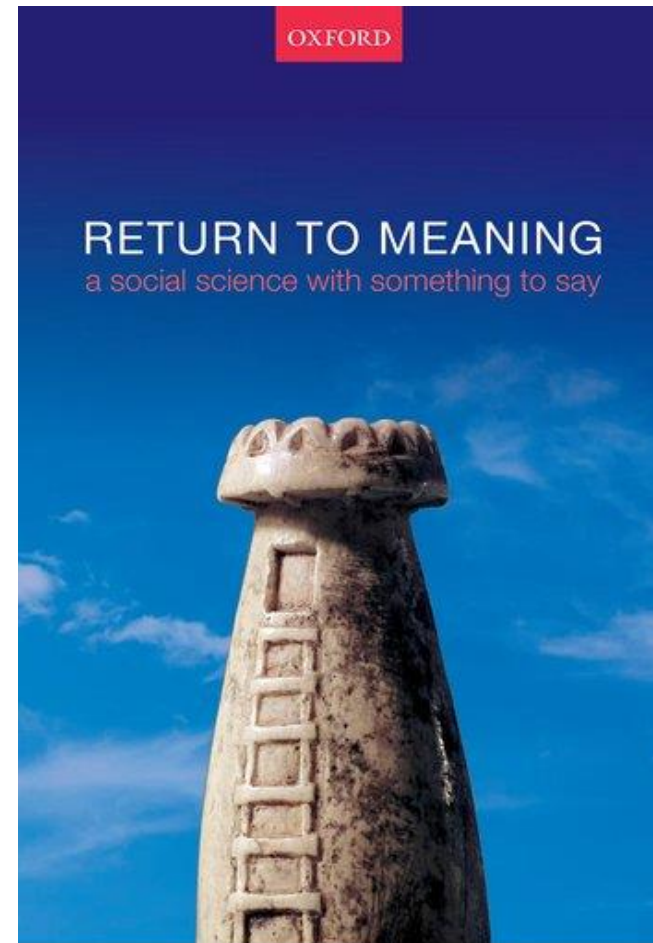
Gray Matter

By NICHOLAS A. CHRISTAKIS JULY 19, 2013

TWENTY-FIVE years ago, when I was a graduate student, there were departments of natural science that no longer exist today. Departments of anatomy, histology, biochemistry and physiology have disappeared, replaced by innovative departments of stem-cell biology, systems biology, neurobiology and molecular biophysics. Taking a page from Darwin, the natural sciences are evolving with the times. The perfection of cloning techniques gave rise to stem-cell biology; advances in computer science contributed to systems biology. Whole new fields of inquiry, as well as university departments and majors, owe their existence to fresh discoveries and novel tools.

In contrast, the social sciences have stagnated. They offer essentially the same set of academic departments and disciplines that they have for nearly 100 years: sociology, economics, anthropology, psychology and political science. This is not only boring but also counterproductive, constraining engagement with the scientific cutting edge and stifling the creation of new

“Never before in the history of humanity have so many written so much while having so little to say to so few”



MATS ALVESSON, YIANNIS GABRIEL, & ROLAND PAULSEN

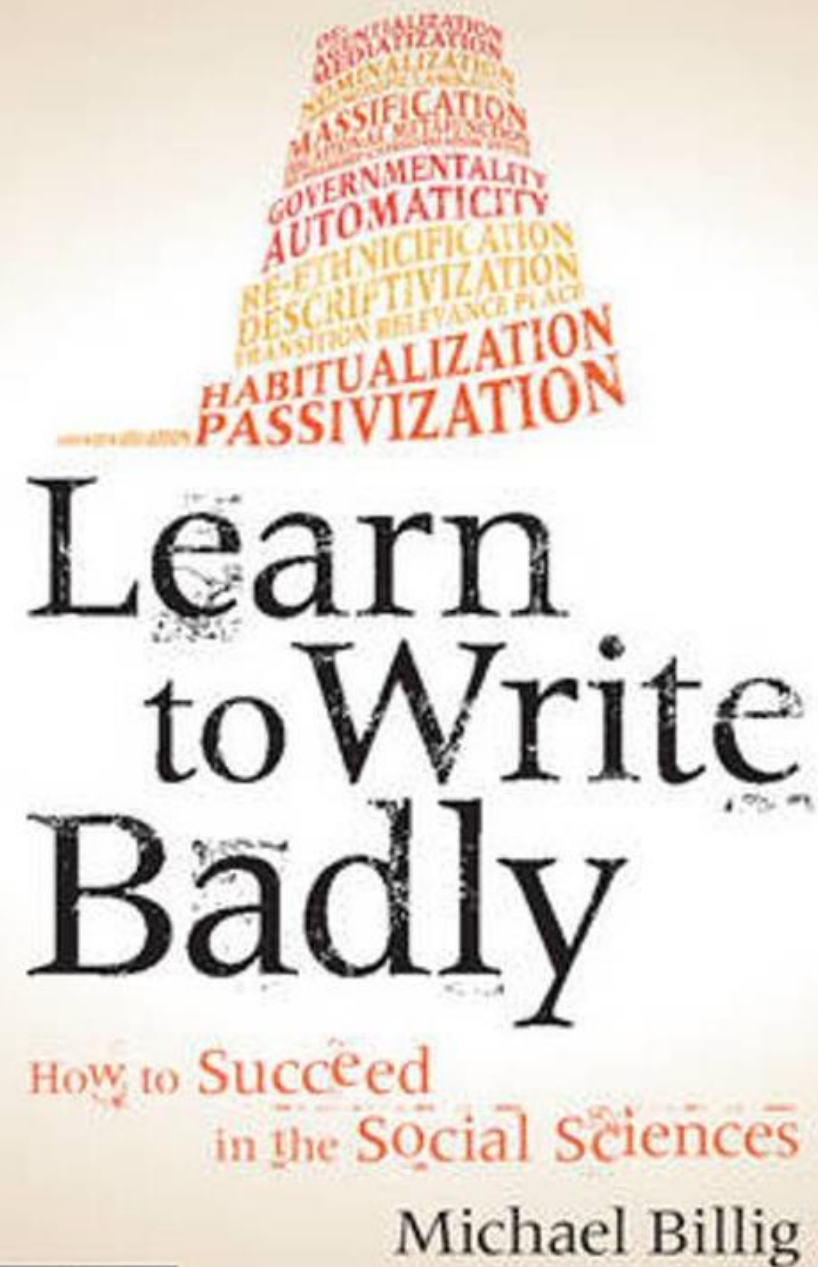
Barriers to research collaboration: are social scientists constrained by their desire for autonomy?



*Researchers everywhere are being pushed to collaborate. Individual academics are being urged to join teams, small teams are encouraged to merge with others to become bigger teams, and institution-wide and inter-institutional collaborations are spreading. With potential benefits including increased chances of funding, visibility, and impact, why, asks **Jenny M. Lewis**, are social scientists not embracing collaboration more? Might it be the value they place on their autonomy, the freedom to pursue their own ideas and choose which topics to work on, that is constraining them? Researcher interviews suggest it may actually be time pressures and managerial constraints that are bounding autonomy, crowding out space to develop collaborations.*

Research collaboration, broadly meaning teams of researchers working together on a common topic, is being encouraged within countries, between countries, within regions, and globally. It features in national research policy in the form of grants that encourage it, and this is mirrored in the strategies of individual universities. This trend has escalated. Individual academics are being urged to join teams, small teams are encouraged to merge with others to become bigger teams, and institution-wide and inter-institutional collaborations are spreading. Many of these are deliberately tilted towards interdisciplinary, multinational teams and partnerships between academic and non-academic institutions. This push is backed by a belief that better research results from “many different brains working on the same question”. Collaboration is also seen as important for addressing grand societal challenges, increasing research productivity, and increasing research impact.

Compared to the biological and physical sciences or the science, technology, engineering and mathematics disciplines, the humanities, arts and social sciences lag behind on collaboration, at least as measured by concrete, visible markers such as co-authorship practices or jointly held grants. While



Should social science be more solution-oriented?

Duncan J. Watts

Over the past 100 years, social science has generated a tremendous number of theories on the topics of individual and collective human behaviour. However, it has been much less successful at reconciling the innumerable inconsistencies and contradictions among these competing explanations, a situation that has not been resolved by recent advances in ‘computational social science’. In this Perspective, I argue that this ‘incoherency problem’ has been perpetuated by an historical emphasis in social science on the advancement of theories over the solution of practical problems. I argue that one way for social science to make progress is to adopt a more solution-oriented approach, starting first with a practical problem and then asking what theories (and methods) must be brought to bear to solve it. Finally, I conclude with a few suggestions regarding the sort of problems on which progress might be made and how we might organize ourselves to solve them.

As a sociologist who spends a lot of time in the company of physicists, computer scientists and other outsiders to my field, I am often asked a question of the sort: “What is the social science perspective on X ?”, where X is some topic of interest. To a social scientist, the question sounds hopelessly naïve: for any topic X , social science has dozens, if not hundreds, of perspectives, but no single perspective on which there is anything close to universal agreement. Nevertheless, I would argue that it is worth taking the question seriously, if only because it highlights an important difference between the social and physical/engineering sciences.

Physicists disagree of course — for example, about the best way to reconcile general relativity with quantum mechanics, or the best explanation for the ‘missing mass’ problem in cosmology — but overall there is tremendous agreement both on what physicists know about the universe (Newtonian mechanics, thermodynamics, electromagnetism, optics, special and general relativity, statistical mechanics, particle physics and so on) and where the remaining areas of uncertainty lie. By contrast, any representative cross-section

of theories over the solution of practical problems. Finally, I argue that one possible solution to the incoherency problem is to reject the traditional distinction between basic and applied science, and instead seek to advance theory specifically in the service of solving real-world problems.

Before proceeding, however, let me clarify two points of possible confusion. First, I am not arguing that all, or even most, of social science should become solution-oriented. Social science can serve many purposes — for example, the field can challenge common-sense assumptions about the nature of social reality^{7–9}, provide rich descriptions of lived experience^{10–12}, inspire new ways of thinking about human behaviour^{13,14} and shed light on specific empirical puzzles^{15,16} — that do not directly address practical problems but can still provide valuable insight. My argument is not that social scientists should stop pursuing these other objectives in favour of solving practical problems; only that collectively we should pay more attention than we do to the latter. Second, I am also not suggesting that social scientists do not already devote themselves to solving

A rectangular sign with a yellow background and a black border of diagonal stripes. The text is centered and reads:

**CHEERFUL
WHISTLING
PERMITTED**

THIS WEEK

EDITORIALS



WORLD VIEW UN wants to ride the rising tide of international hydro-diplomacy p.6

SOCIAL SELECTION If you build a crowd on social media, the money for your research will come go.nature.com/t5ytxr

Time for the social sciences

Governments that want the natural sciences to deliver more for society need to show greater commitment towards the social sciences and humanities.

Physics, chemistry, biology and the environmental sciences can deliver wonderful solutions to some of the challenges facing individuals and societies, but whether those solutions will gain traction depends on factors beyond their discoverers' ken. That is sometimes true even when the researchers are aiming directly at the challenge. If social, economic and/or cultural factors are not included in the framing of the questions, a great deal of creativity can be wasted.

This message is not new. Yet it gets painfully learned over and over again, as funders and researchers hoping to make a difference to humanity watch projects fail to do so. This applies as much to business as to philanthropy (ask manufacturers of innovative crops).

All credit, therefore, to those who establish multidisciplinary projects — for example, towards enhancing access to food and water, in adaptation to climate change, or in tackling illness — and who integrate natural sciences, social sciences and humanities from the outset. The mutual framing of challenges is the surest way to overcome the conceptual diversities and gulfs that can make such collaborations a challenge.

All credit, too, to leading figures in policy who demonstrate their commitment to this multidimensional agenda. And all the more reason

has been for such exercises to concentrate funding sharply towards the upper tiers of the rankings.

Most important in the current context is whether an over-dependence on funding formulae will undermine the nation's abilities to meet its future needs. A preliminary analysis by a policy magazine, *Research Fortnight*, reaches a pessimistic conclusion for those

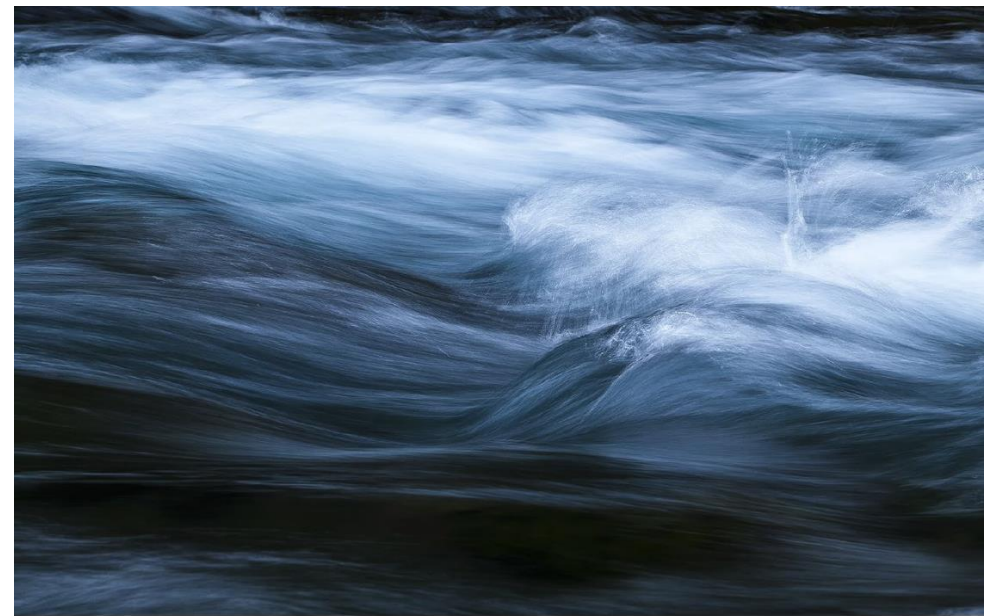
"If you want science to deliver for society, you need to support a capacity to understand that society."

who believe that the social sciences are strategically important: given the REF results, the social sciences will gain a smaller slice of the pie than the size of the community might have suggested. If that reflects underperformance in social science at a national scale, and given the strategic importance of these disciplines, a national ambition in, for example, sociology, anthropology and psychology that reaches

beyond the funding formula needs to be energized.

A reader of the government's science and innovation strategy (go.nature.com/u5xbnx) might reach the same conclusion. Its fundamental message is to be welcomed: understandably focusing on enhanc-

SDGs: the lingua franca of interdisciplinary global challenges research



Sustainability in Turbulent Times

Lessons from the Nexus Network for supporting transdisciplinary research

The Campaign for Social Science aim is to raise the profile of social science in the public, media and Parliament

About

A World of Talent: International Staff at UK Universities & the Future Migration System

Will you help the Campaign sustain social science at this time of great change?

Donate

NEWS

CAMPAIGN for SOCIAL SCIENCE SAGE Publishing

PUBLIC POLICY 10 YEARS AFTER THE CRISIS

Paul Johnson CBE FAcSS
Director of the Institute of Economic Affairs

NEWS
Paul Johnson CBE FAcSS spoke at the CISS/Sage Publishing Annual Lecture 2018

CAMPAIGN for SOCIAL SCIENCE

NEWS
Campaign for Social Science response to 2018 Autumn Budget

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European Alliance for Social Sciences and Humanities

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Renewed confidence & creativity in our evidence, advocacy & alliance-building



SSRC

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TO SECURE KNOWLEDGE

Social Science Partnerships for the Common Good

Contents

- Executive Summary
- Introduction
- A Knowledge System in Flux
- Key Areas for Collaboration
- Conclusion: Toward a New Compact for the Social Sciences
- Recommendations

Executive Summary

For decades, the social sciences have generated knowledge vital to guiding public policy, informing business, and understanding and improving the human condition. But today, the social sciences face serious threats. From dwindling federal funding to public mistrust in institutions to widespread skepticism about data, the infrastructure supporting the social sciences is shifting in ways that threaten to undercut research and knowledge production.

How can we secure social knowledge for future generations?

This question has guided the Social Science Research Council's Task Force. Following eighteen months of consultation with key players as well as internal deliberation, we have identified

We can create our own economies of promise

Zinc builds new tech companies that solve the developed world's toughest social issues.

Learning from the successful innovation systems in computer and life sciences, Zinc combines insights from social sciences with top entrepreneurial talent and venture capital to build new, scalable, mission-led businesses.

The Zinc Programme brings together 50 bright minds for 9 months to find their co-founders and build new commercial businesses from scratch.

Each programme has a single mission, to solve a social problem which affects at least 100m people.

Mission-Led Approach

Each of our 9-month company-builder programmes is mission-led because we believe in the power of mission-led capital, to achieve scale of impact.

We have 3 criteria for choosing a Zinc mission:

1. it must tackle one of the great **unmet needs** in the developed world;
2. the target addressable **market must exceed 100m** people in the developed world alone;
3. there must be lots of **unexploited opportunities to disrupt**, extend and improve existing services through research.

Social Science Foo Camp 2018

SAGE Ocean
@SAGEOceanTweets - 9. Februar 2018

The first ever #socscifoo. Co-hosted by Facebook, O'Reilly Media & SAGE Publishing. 2 - 4 Feb 2018 - Menlo Park, CA.

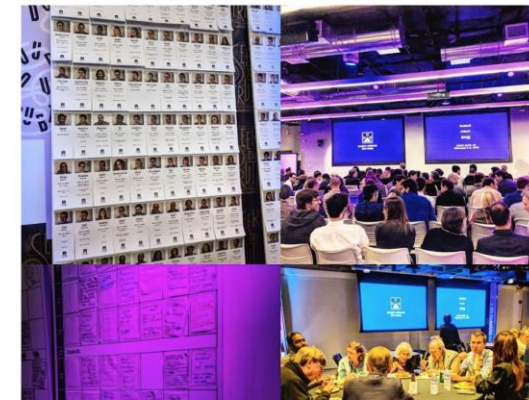
3 Gefällt mir 

Gefällt mir [Twittern](#)

The team behind Zinc

SAUL KLEIN
Co-Founder, Chairman

PAUL KIRBY
Co-Founder, CEO



Possibilities of *some* new metrics & research data platforms

Dimensions

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FILTERS FAVORITES

▼ PUBLICATION YEAR

- 2018 262,733
- 2017 287,816
- 2016 271,242
- 2015 268,473
- 2014 257,532
- 2013 243,488
- 2012 212,457
- 2011 203,600
- 2010 181,789
- 2009 162,364

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4,355,639	46,366	12,298	1,049	168,270

Sort by: Relevance ▼

Title, Author(s), Bibliographic reference - [About the metrics](#)

[Labour market regulation as global social policy: The case of nursing labour markets in Oman.](#)

Crystal A Ennis, Margaret Walton-Roberts
2018, Global Social Policy - Article

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[Researching LGB health and social policy: methodological issues and future directions.](#)

Nathaniel M Lewis
2017, Journal of Public Health Policy - Article

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[A survey of social media policies in U.S. dental schools.](#)

Rachel K Henry, Chadleo Webb
2014, Journal of Dental Education - Article

5 [Add to Library](#)

[Innovation in social policy: collaborative policy advocacy.](#)

Margaret S Sherraden, Betsy Slosar, Michael Sherraden
2002, Social Work - Article

← ANALYTICAL VIEWS

FIELDS OF RESEARCH ▼

- [1117 Public Health and Health Services](#) 534,269
- [1402 Applied Economics](#) 350,084
- [1701 Psychology](#) 256,597
- [1608 Sociology](#) 230,553
- [2103 Historical Studies](#) 204,694

OVERVIEW ▼

RCR Mean FCR Mean

1.26 1.57

● Publications

RESEARCHERS ▼

8 PRIORITIES FOR HIGH-IMPACT SOCIAL SCIENCE

ARE WE STRETCHING
PEOPLE IN TOO MANY
DIRECTIONS?
ARE INCENTIVES
MISALIGNED ?

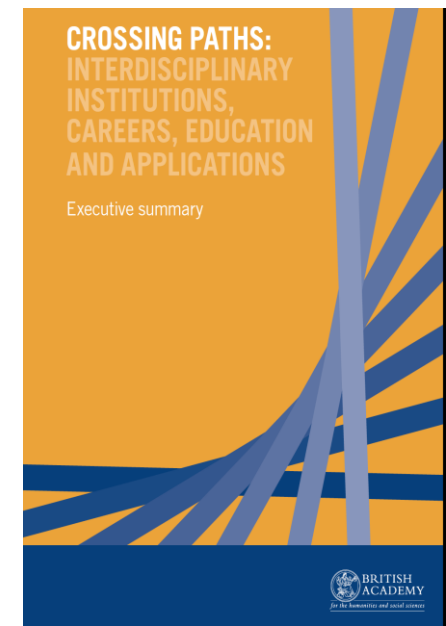
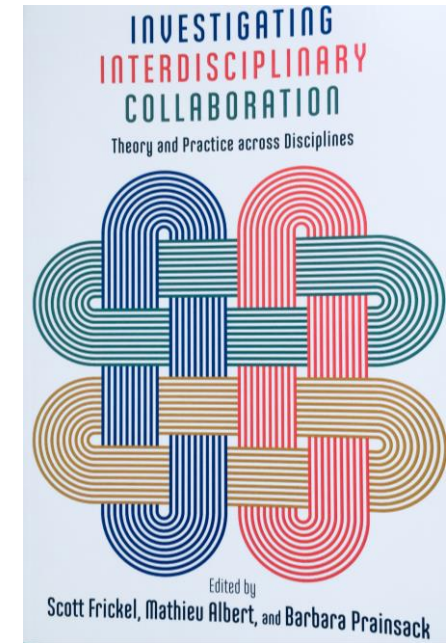


1. Be critical, confident transdisciplinaryians

A **multidisciplinary** approach draws upon the strengths or expertise of different disciplines, and more effectively joins up their findings, but leaves disciplinary boundaries (and sometimes hierarchies) intact.

An **interdisciplinary** approach involves the fuller integration of disciplines, to develop potentially novel ways of approaching research questions, recognising that there is a diversity of ways to understand and address particular problems.

Transdisciplinary research not only integrates expertise from across academic disciplines, but also involves societal stakeholders in the design stage, and throughout the research process. In transdisciplinary research, knowledge can come from beyond academic disciplines, and insights are often provided through other kinds of tacit knowledge – as held by local communities, businesses, social movements or practitioners.



2. Keep it complex & embrace the messiness



COMMENT

CONSERVATION Threats to Adélie penguins assessed p.1034

MATHEMATICS Roger Penrose reflects on 50 years and 6 volumes of work p.1039

REVIEWING Pool of peers grows to cope with submissions surge p.1041

OBITUARY Brian Marsden, keeper of comets, remembered p.1042



A UK crop circle, created by activists to signify uncertainty over where genetic contamination can occur.

Keep it complex

When knowledge is uncertain, experts should avoid pressures to simplify their advice. Render decision-makers accountable for decisions, says **Andy Stirling**.

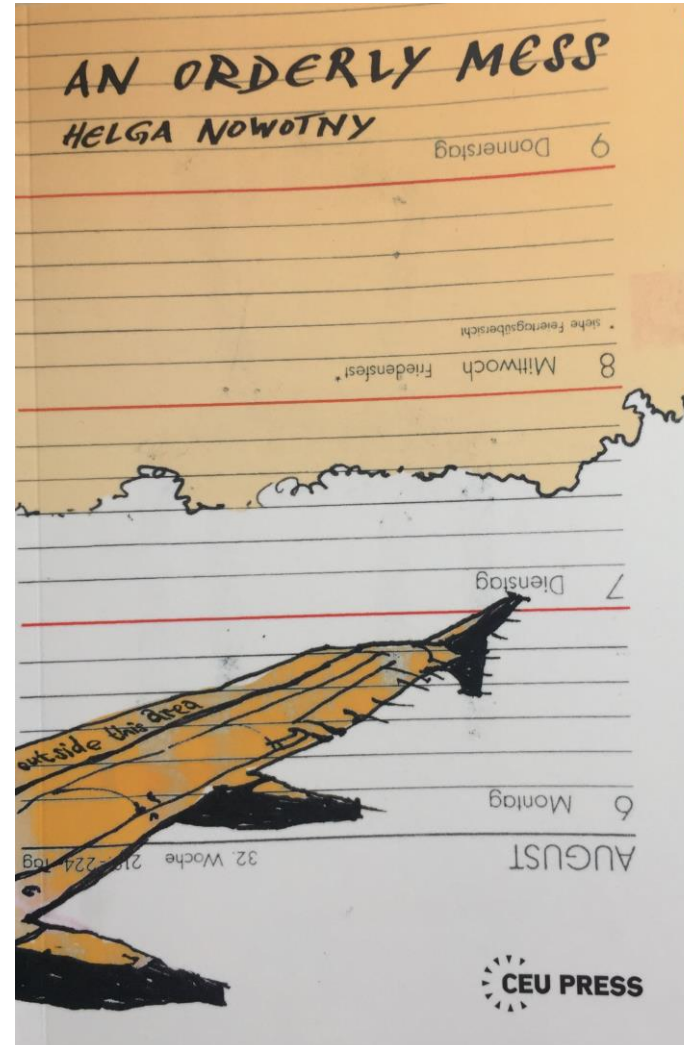
Worldwide and across many fields, there lurks a hidden assumption about how scientific expertise can best serve society. Expert advice is often thought most useful to policy when it is presented as a single 'definitive' interpretation. Even when experts acknowledge uncertainty, they tend to do so in ways that reduce unknowns to measurable 'risk'. In this way, policy-makers are encouraged to pursue (and claim) 'science-based' decisions. It is also not uncommon for senior scientists to assert that there is no alternative to some scientifically contestable policy. After years researching — and participating in — science advisory processes, I have come to the conclusion that this practice is misguided.

An overly narrow focus on risk is an inadequate response to incomplete knowledge. It leaves science advice vulnerable to the social dynamics of groups — and to manipulation by political pressures seeking legitimacy, justification and blame management. When the intrinsically plural, conditional nature of knowledge is recognized, I believe that science advice can become more rigorous, robust and democratically accountable.

A rigorous definition of uncertainty can be traced back to the twentieth-century economist Frank Knight¹. For Knight, "a measurable uncertainty, or 'risk' proper ... is so far different from an unmeasurable one that it is not in effect an uncertainty at all". This is not just a matter of words, or even methods. The stakes are potentially much higher. A preoccupation with assessing risk means that policy-makers are denied exposure to dissenting interpretations and the possibility of downright surprise.

Of course, no-one can reliably foresee the unpredictable, but there are lessons to be learned from past mistakes. For example, the belated recognition that seemingly inert and benign halogenated hydrocarbons were interfering with the ozone layer. Or the slowness to acknowledge the possibility of novel transmission mechanisms for spongiform encephalopathies, in animal breeding and in the food chain. In the early stages, these sources of harm were not formally characterized as possible risks — they were 'early warnings' offered by dissenting voices. Policy recommendations that miss such warnings court overconfidence and error.

The question is how to move away ▶



3. Get serious about 'team social science'

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You are here: Home > Policy > Policy projects > Team science

Team science

This project sought to understand the current incentives and disincentives for individual researchers participating in 'team science', and how to improve reward and recognition for their contributions.

Status
Ongoing

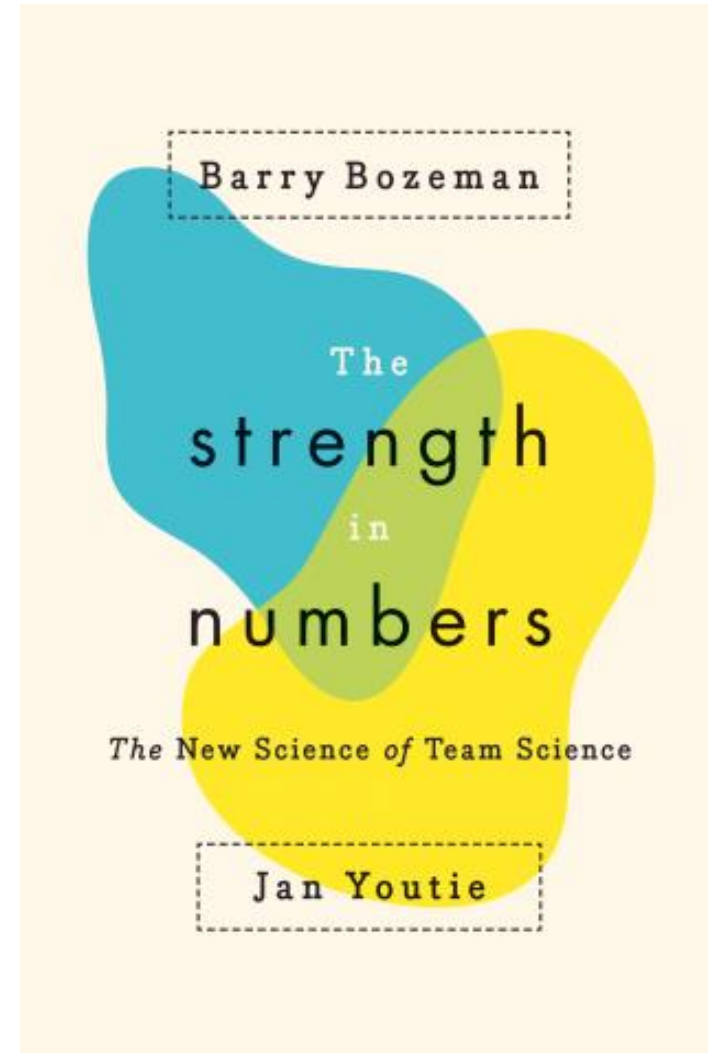


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Summary | Scope of project | Working Group Members | 2012 roundtable

Downloads

Image competition



4. Take the argument into the strongholds of STEM

The Biomedical Bubble

Why UK research and innovation needs a greater diversity of priorities, politics, places and people

Richard Jones and James Wilsdon
July 2018

THE LANCET

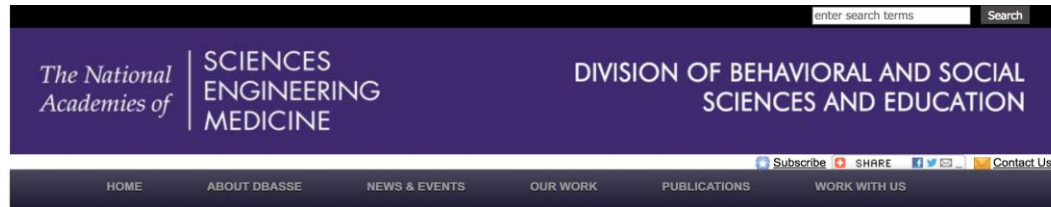
Volume 391, Number 10143, Pages 1407-1521, July 20-27, 2018 www.thelancet.com

"A radical shift of life sciences funding priorities, away from the biomedical bubble and towards the social, behavioural, and environmental determinants of health, is now needed."

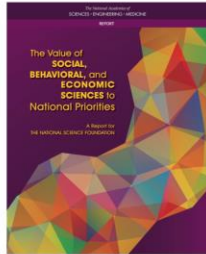
See Editorial page 137

World Report	Articles	Articles	Articles	Commission
25 years since the creation of HPAI	Outbreak of Ebola virus disease in the DR Congo, April-May 2018	Baricitinib for treatment of systemic lupus erythematosus	Evaluation of a novel 10T2 vaccine in humans and in rhesus monkeys	WHO Independent High Level Commission on NCDs
See page 140	See page 141	See page 142	See page 143	See page 144

5. Seize opportunities & golden threads in innovation & industrial strategy (place, productivity etc)



The Value of Social, Behavioral, and Economic Sciences to National Priorities: A Report for the National Science Foundation



In response to a request from the National Science Foundation (NSF), the National Academies of Sciences, Engineering, and Medicine appointed an expert committee to help determine whether the federal government should fund research in the social, behavioral, and economic (SBE) sciences at NSF. Specifically, the committee was asked to examine whether SBE research furthers the mission of NSF and those of other federal agencies and advances business and industry.

In its report, the committee concludes that the social, behavioral, and economic sciences advance the missions of NSF and other federal agencies and many of the most important needs of society. SBE research also can be business and industry and has enhanced the U.S. economy.

The report also offers recommendations to better enable SBE research to advance national priorities—for example, urging NSF to undertake a strategic planning process to articulate the most important scientific questions in SBE disciplines to prepare the next generation of scientists to be more data intensive, interdisciplinary, and team oriented. NSF should also undertake more systematic efforts to communicate the results and value of the SBE research it supports.

Download for free:

[Report](#)

Sponsor: National Science Foundation

Committee Members

ALAN I. LESHNER (Chair), American Association for the Advancement of Science (emeritus), Washington, DC
JOHN S. CARROLL, Sloan School of Management, Massachusetts Institute of Technology

OECD publishing

WHAT ROLE FOR SOCIAL SCIENCES IN INNOVATION? RE-ASSESSING HOW SCIENTIFIC DISCIPLINES CONTRIBUTE TO DIFFERENT INDUSTRIES

OECD SCIENCE, TECHNOLOGY AND INNOVATION
POLICY PAPERS

November 2017 **No. 45**



6. Invest in new spaces for collaboration & knowledge exchange

LSE THE LONDON SCHOOL OF ECONOMICS AND POLITICAL SCIENCE

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News > 2018 > 04 April 2018 > New spin-out generator receives £5 million from Research England

News **New spin-out generator receives £5 million**

TUE 10 APR 2018

“ We need to harness the insights from the social sciences so they can better contribute to the economy and productivity ”

- Professor Julia Black



LSE Library. Nigel Stead

Tuesday, 10 November 2015

The Rise of the Para-Academic



David Mills and a room of para-academics

The annual conference of the Association of Research Managers and Administrators took place in Brighton at the beginning of June. The event, and the association itself, has mushroomed in recent years.

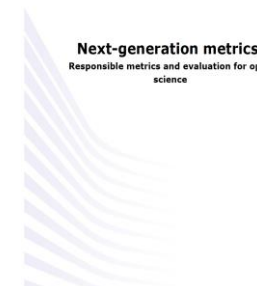
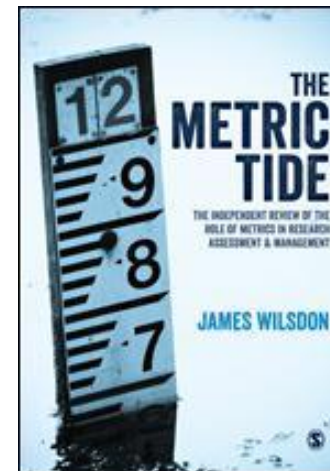
CSaP Public Policy @Southampton #IgniteTheDebate



7. Expand notions of leadership & the criteria & indicators we use for hiring, promotion & assessment

Annex I: Core leadership characteristics derived from existing research base

Leadership	Meaning
Disciplinary leadership	Provide foresight, vision and direction to advance and transform knowledge and methods within research disciplines, through both individual and collective efforts.
Inter-disciplinary leadership	Engage across disciplinary boundaries with both confidence and humility to develop new ways of thinking and working, often to address major societal challenges.
Complex project leadership	Manage large, complex projects, programmes and research infrastructures effectively, including some element of financial management and oversight.
Leading generational change	Provide inspiration and guidance to the next generation of social scientists.
Leadership in impact generation	Spur innovation in the delivery of impact from social science research, including building close relationships with senior figures among potential research users. High-profile advocacy and promotion of the social sciences.
Leadership in public engagement	Engage the wider public in understanding and appreciating the value of social science to their lives and communities. High-profile advocacy and promotion of the social sciences.
International leadership	Work internationally to raise the profile of UK social science and strengthen international collaborations.



Forum for Responsible Research Metrics

A group of research funders, sector bodies and academic partners in a partnership to promote the responsible use of metrics.

- [About the forum](#)
- [Survey on the culture of research metrics - respond by 10 April](#)
- [Research Excellence Framework 2021](#)
- [Papers](#)

About the forum

The Forum for Responsible Metrics is developing a programme of activities for research funders, higher education institutions and across the research community in order to ensure that metrics are used responsibly.

The Forum will advise on, and work to improve, the data infrastructure used for research metrics.

Who is involved with the Forum for Responsible Research Metrics?

The forum is a partnership between the Higher Education Funding Council for England (HEFCE), the Higher Education Funding Council for Wales (HEFCW), the Higher Education Funding Council for Northern Ireland (HEFNI), the Higher Education Funding Council for Scotland (HEFCS), the Joint Information Systems Committee (JISC), the Research Excellence Framework (REF), the Research Councils UK (RCUK), the Research Councils for the Arts (RCA), the Research Councils for the Humanities (RCH), the Research Councils for Life Sciences (RCLS), the Research Councils for the Physical Sciences (RCP), the Research Councils for the Social Sciences (RCS), the Research Councils for the Environment, Earth and Planetary Sciences (RCEPS), the Research Councils for the Mathematics, Physics and Engineering (RCMPe), the Research Councils for the Social Sciences (RCS), the Research Councils for the Social Sciences (RCS), the Research Councils for the Social Sciences (RCS), the Research Councils for the Social Sciences (RCS).

Expert Group on Indicators

Indicators for Researchers' Engagement with Open Science and its Impacts

Home Open Access European Open Science Policy Platform Groups Open Science Monitor

How can the responsible engagement of the scientific communities with open knowledge practices be stimulated? In what way may current evaluation protocols hinder the development of open science and scholarship? Which new indicators can be developed to ensure that

8. Invest more in 'research on research'

COMMUNITY PAGE

Meta-research: Evaluation and Improvement of Research Methods and Practices

John P. A. Ioannidis*, Daniele Fanelli, Debbie Drake Dunne, Steven N. Goodman

Meta-Research Innovation Center at Stanford (METRICS), Stanford University, Stanford, California, United States of America

* joannid@stanford.edu

Abstract

As the scientific enterprise has grown in size and diversity, we need the research process to test and apply interventions that make it more results more reliable. Meta-research is an evolving scientific discipline and improve research practices. It includes thematic areas of method, reliability, evaluation, and incentives (how to do, report, verify, correct). Much work is already done in this growing field, but efforts to-date provide a map of ongoing efforts and discuss plans for connecting the efforts across science worldwide.



click for updates

OPEN ACCESS

Citation: Ioannidis JPA, Fanelli D, Dunne DD, Goodman SN (2015) Meta-research: Evaluation and

Why Perform Research on Research?

Throughout the history of science, leading scientists have endeavoured research on fundamental aspects of the scientific method and to identify most efficiently. While focused subject matter questions and discoveries



Funding What we do About us News

Scheme finder Funding guidance Develop your research career

Research on Research Awards

These awards are for researchers who use a range of interdisciplinary methods to understand and improve how research is funded, practiced and evaluated, also known as research on research.

Scheme at a glance

This scheme is now closed

Career stage: Postdoctoral research, Leading a research programme, Returning to research

Where your host organisation is based: UK, Republic of Ireland, Low- or middle-income countries

Level of funding: Between £50,000 and £250,000

Duration of funding: 6 to 24 months

@jameswilson
@cfsocialscience





Impact of Science

5-7 June 2019, Berlin

Plenary opening: Policies for impact

Richard van de Sanden

Chair of Committee on the Report Tracking Societal Impact, Royal

Netherlands Academy of Arts and Sciences &

Director of Dutch Institute for Fundamental Energy Research &

Full Professor at Eindhoven University of Technology



K O N I N K L I J K E N E D E R L A N D S E
A K A D E M I E V A N W E T E N S C H A P P E N

HOW TO INTEGRATE AN IMPACT STRATEGY WITH AN ACADEMIC STRATEGY

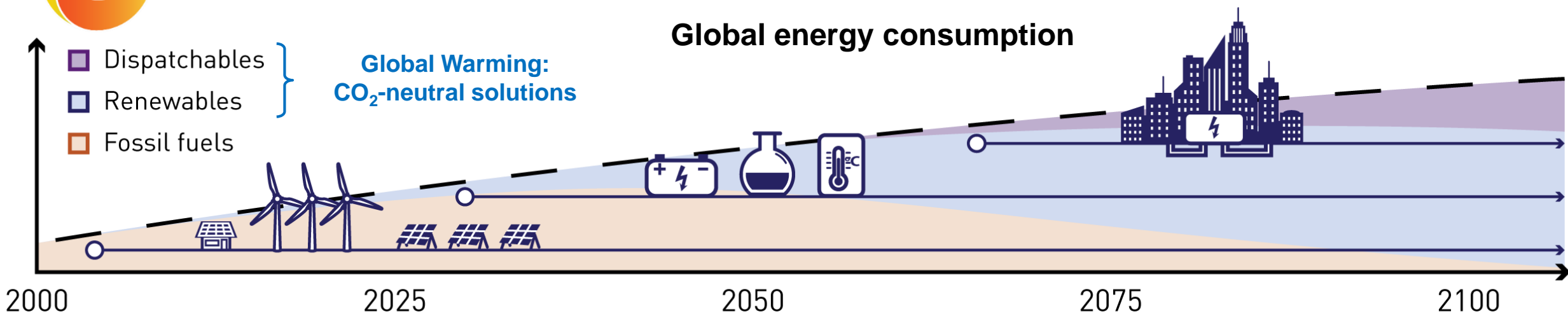
(KNAW-ADVISORY REPORT: DETERMINING SOCIETAL IMPACT OF SCIENCE)

RICHARD VAN DE SANDEN

AESIS Impact of Science conference, Berlin 2019



DIFFER's vision on the energy transition



Societal developments

renewables penetration (carbon backed)

phasing out CO₂ emitting plants

migration to mega cities increased energy use

Science and technology challenges

storage and conversion of renewable energy

concentrated >100 MW dispatchable power

Research program

CO₂ neutral fuels/chemicals

Fusion Energy





REQUEST FOR KNAW ADVICE FROM STATE SECRETARY FOR EDUCATION

In short:

How best to determine the societal and economic impact of science?

Sub questions:

- Which instruments are suitable?
- Identify blind spots?
- Make recommendations for development of new instruments

Composition advice committee, diverse disciplinary background, diversity stakeholders



ADVICE REPORT RESTRICTED TO IMPACT ON SOCIETY, DEFINED AS:

The contribution made by scientific research, in both the short and the long term, to changes in, or the development of, sectors of society and to challenges facing society.

such sectors of society include the economy, culture, public administration, and healthcare, while the challenges include such issues as climate change, immigration, quality of life, the environment, the rule of law, and security.

Outside scope: impact on science itself and the educational aspect of science



WHY IS THERE MORE AND MORE INTEREST IN THE SOCIETAL IMPACT OF SCIENCE?

- Justifying investments in public research (tax payer's interest)
- Increase the impact of research
- Selecting research projects
- Communication of the effects of research in the short and long term



THREE LEVELS OF IMPACT/RESEARCH RESULTS

1. **Output:** the most direct results of a study, often apparent in the relatively short term.
Example: research publications, prototypes, procedures
2. **Outcome:** the medium-term results, often a clear relationship with the objective of the research project/program.
Example: increase in the vaccination level of children in the Netherlands.
3. **Societal impact:** means the effect of science in the long term.
Example: reduced infant mortality in the Netherlands.



EX-POST ASSESSMENT OF SOCIETAL IMPACT

1. **Econometric studies** determine the economic effects of, *e.g.* research universities and universities of applied sciences as a whole.
2. The **case-based approach** to assess what the societal impact has been of *individual* research projects/programs.
3. **Societal impact/relevance as a component of research evaluation** is increasingly one of the aspects assessed with a great deal of information being gathered about *utilization* of the knowledge generated.
4. **Process-oriented methods** clarify the course of the *pathway* leading from the research to its impact on society. These methods focus not on the nature and extent of the societal impact itself but on the process leading to it (*e.g.* the involvement of the networks).



EX-POST INSTRUMENTS, FINDINGS OF THE INVENTORY

- Many methods give a picture of **output** and **outcome** rather than of **societal impact**.
- The methods and tools are often still being developed, and there is not one silver bullet approach to measure impact.
- Mixed-methods are expected to give the best results.
- Most appropriate methodological framework depends to a large extent on the **aim of the assessment**.



LESSONS LEARNED INTERNATIONALLY

- **Assessment of narratives** by panels of experts combined with **effective quantitative substantiation** provides a **good basis for the ex-post assessment of societal impact**. Assessment panels must include experts who can offer a judgement on the use made of the knowledge generated.
- Constructing **high-quality narratives** and substantiating them is highly labour-intensive and therefore **costly**.
- It takes a **long time** for the impact on society to become **apparent** and this **varies** greatly from **one discipline** to another and from **one type of research** to another.
- **Societal impact** of research often becomes apparent later than the usual **evaluation period of four to six years**. This leads to the risk of a distorted picture being created of that impact due to changes in the terms of reference.



REALIZING SOCIETAL IMPACT

There is sometimes an **erroneous perception** that the process that leads from research to societal impact is a **linear pathway** (“the pipeline”) that starts from **basic research** and proceeds via more **application-oriented research** to (ultimately) **applications** and **societal impact**;

New knowledge is generated within a **dynamic** and **iterative process** that is increasingly open, cross-disciplinary and involves cooperation with partners in society;

Impact is already realized through this **interaction between researchers and parties within society**; in this context one speaks of “**productive interactive networks**¹”

¹LERU (2017) Productive interactions: societal impact of academic research in the knowledge society, KU Leuven



SOCIETAL IMPACT IS THEREFORE:

- extremely diverse,
- only apparent after long periods (> 10 years),
- can often not be linked directly to a particular research project,
- can not always be objectively assessed at any one time,
- often has international aspects → only indirect contribution to Dutch society



CORE OF THE ADVICE: AIM FOR THREE DEVELOPMENT DIRECTIONS

1. Do more **ex-post** with the information already collected
2. Focus **ex-ante** evaluation not on determining the societal impact itself but on the factors and processes that increase the likelihood of such an impact.
3. Utilize **ex-post** experience to increase the societal impact of future projects.

English Summary available via

<https://www.knaw.nl/en/news/publications/maatschappelijke-impact-in-kaart>





1. Increase the use of the **ex-post** evaluation information

VSNU, KNAW,
NWO, VH, TO2

*Make the **narratives** produced within the framework of the evaluations of universities, institutes, etc. **easily accessible to a wide audience**. Consider whether the evaluation committees' **societal relevance assessment** can also be **linked to those narratives**.*

OCW

*Commission one or more institutions to produce a **comprehensive report** on the **societal impact of research in the Netherlands**, and **have it updated** after a number of years. This report must be designed in such a way that it not only **provides a snapshot** but, specifically, can **identify changes over time**. It should to a large extent make use of the **information already available** such as **narratives** from evaluations, **annual reports, project/program reports**.*



2. Focus **ex-ante** evaluation not on determining the societal impact itself but on the factors and processes that **increase the likelihood** of such an impact.

*Continue along the planned path of requiring applicants for research funding to consider how their proposed research can have an impact on society, and what action is needed for that to be achieved. E.g. this can involve asking for **impact pathways** to be specified. Ensure that they **do not become static documents** but rather a means for **promoting utilization by society**. This will also require enabling researchers to devote time and attention to the necessary activities.*

*When **assessing** and **evaluating researchers**, take **explicit into account** the **performance** and **efforts** aimed at achieving **an impact on society**.*



2. Focus **ex-ante** evaluation not on determining the societal impact itself but on the factors and processes that **increase the likelihood** of such an impact.

*When setting the assessment criteria for research projects and programs in which societal impact is one of the aims, include the requirement for there to be a potentially **productive interactive network**.*

*Continue along the planned path of, for example, experimenting with mission-driven programs within the **framework of the National Research Agenda (NRA)** and investigate how **this approach** can lead to a **faster and better impact on society**.*



3. Utilise **ex-post** experience to **increase** the societal impact of future projects.

Investigate what relationships and environmental factors encourage the societal impact of research, and utilize the understanding achieved to further improve policies for promoting societal impact.

Do not link measurement of the societal impact of research to research funding, given that doing so will create undesirable incentives to maximize the value of these indicators. Measuring these indicators will not, generally speaking, lead to an increase in the impact on society.



How to integrate an impact strategy with an academic strategy @ DIFFER

Initiate or be involved in **interactive productive networks**

- Actively engage in involving academic, technological institutes and industrial partners
 - Public-private partnership programs, utilization committees, advisory boards
 - Define research agenda's, *e.g.* the NRA The Energy Transition
- Organizing the funding schemes for the **interactive productive networks**
 - Initiate NWO programs for the research field; incl. Univ. of Applied Sci. and Industry
 - Connect with Universities of Applied Sciences by joint appointment of a lecturers
- Actively engage in the public debate, positioning use-inspired basic research
- Co-develop on innovation topics **outside** mission of institute (ILO)
- Spot early spin-outs/offers





MORE INFORMATION

- Advisory report (in Dutch)
- **English Summary available** via <https://www.knaw.nl/en/news/publications/maatschappelijke-impact-in-kaart>





K O N I N K L I J K E N E D E R L A N D S E
A K A D E M I E V A N W E T E N S C H A P P E N



Impact of Science

5-7 June 2019, Berlin

Plenary opening: Policies for impact

Birgitta Wolff

Vice-President, German Rectors' Conference (HRK)

& President of Goethe-University Frankfurt am Main, Germany