

Measuring the Social Impact of Research

Jane Tinkler

@janetinkler



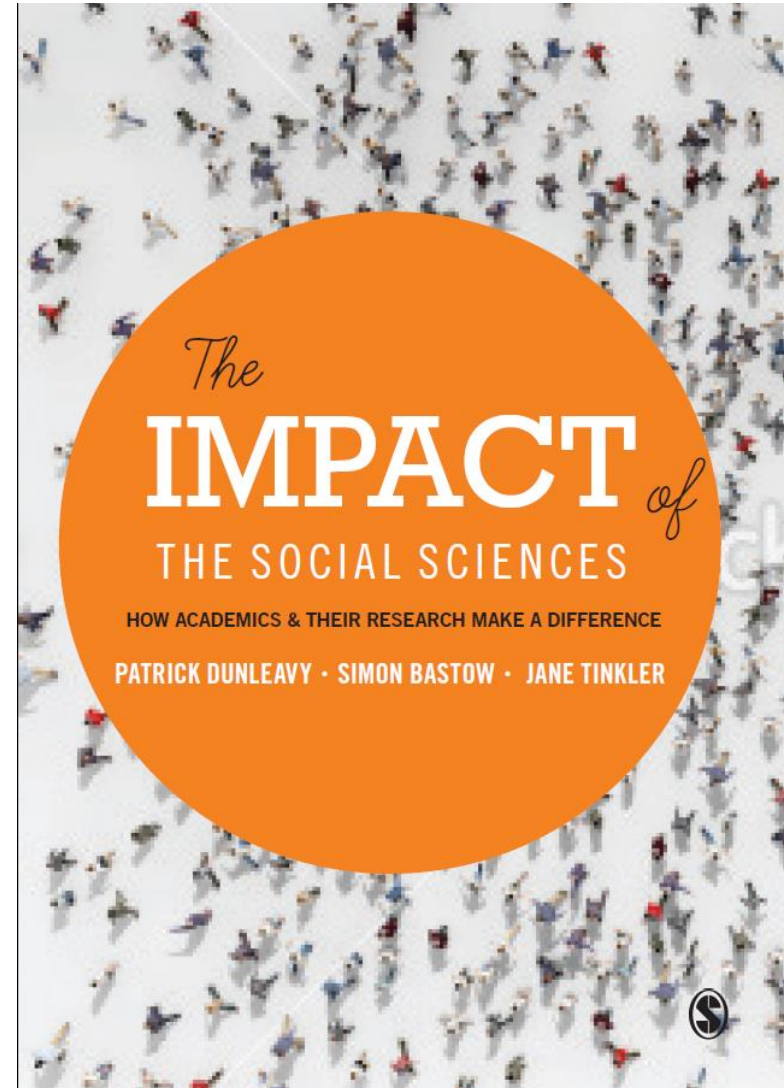
HOUSES OF PARLIAMENT
PARLIAMENTARY OFFICE OF SCIENCE & TECHNOLOGY

LSE

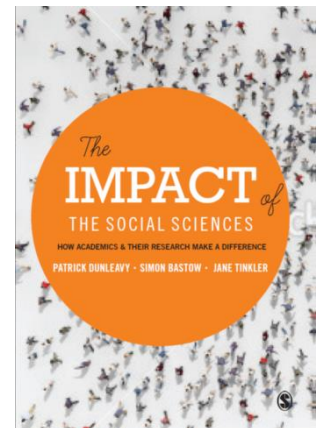
THE LONDON SCHOOL
OF ECONOMICS AND
POLITICAL SCIENCE ■

The Impact of the Social Sciences project

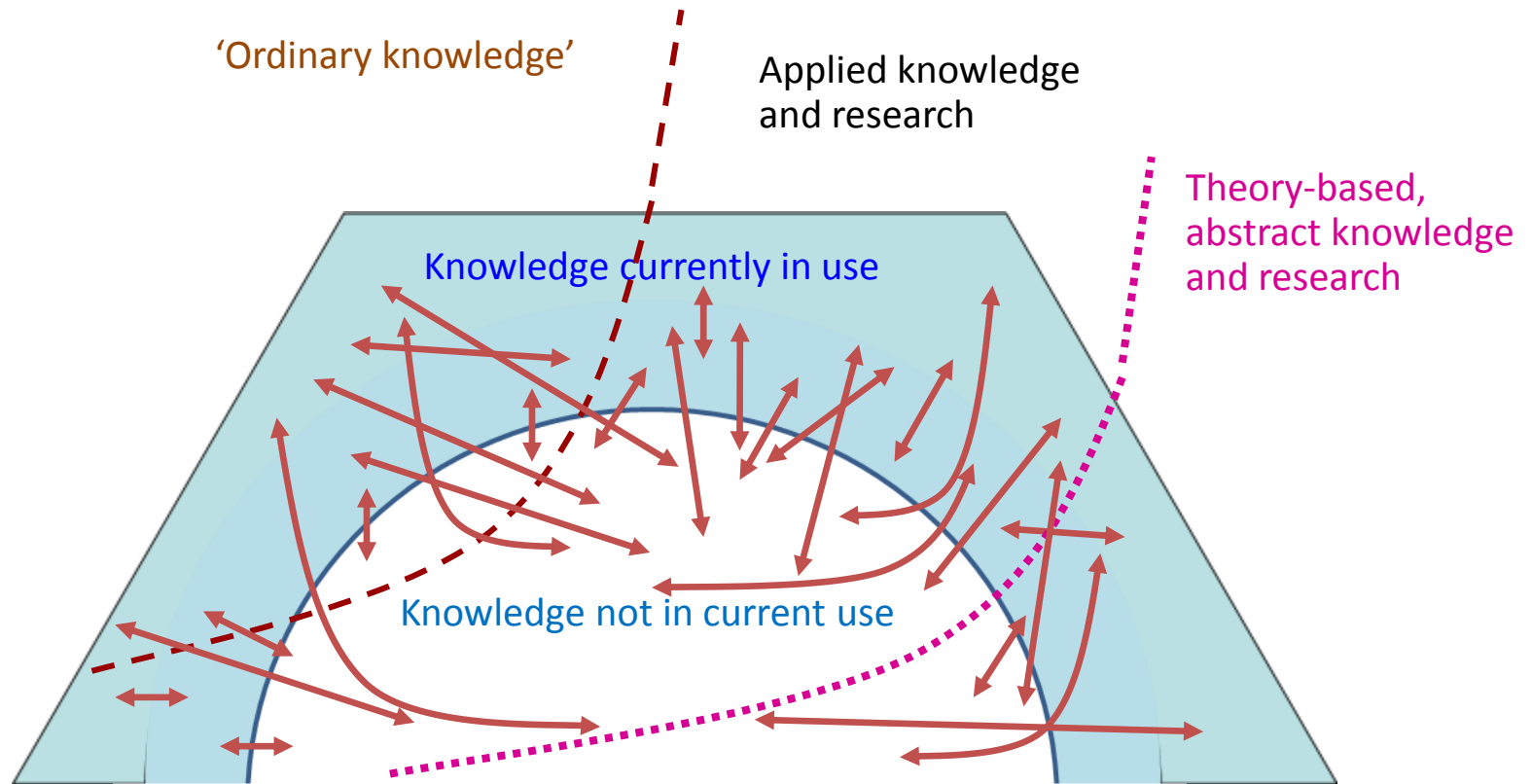
- Three-year HEFCE funded project, LSE working with the University of Leeds and Imperial College London.
- Looked at how academic work had impact on government, business and civil society.
- Book from the research:
Simon Bastow, Patrick Dunleavy and Jane Tinkler (2014) *The Impact of the Social Sciences: How academics and their research make a difference*. London: Sage.



1. How does impact happen?

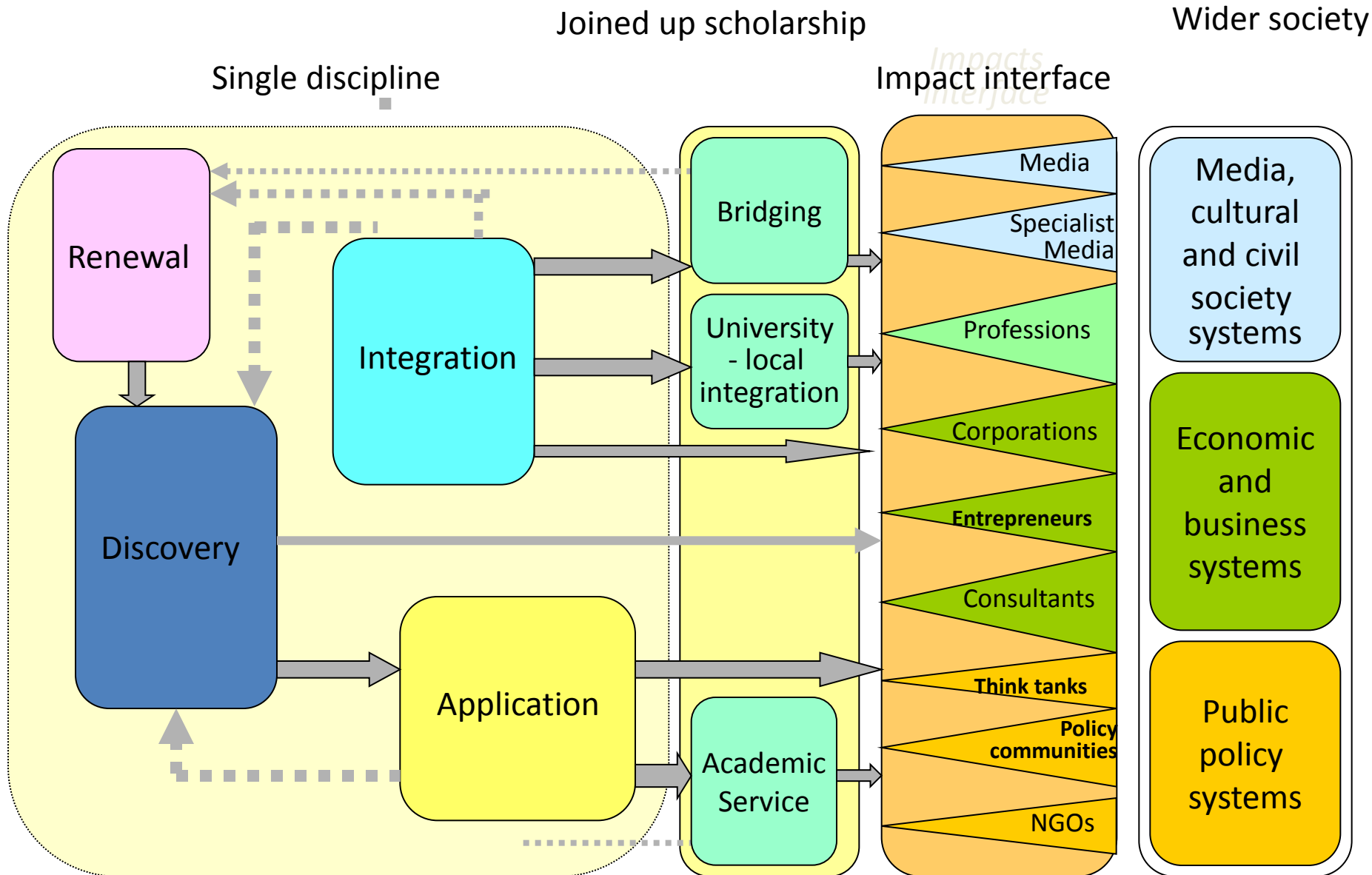


Dynamic Knowledge Inventory: a model of impact for the humanities and the social sciences

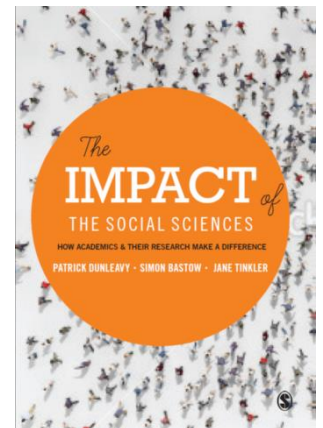


The flow of knowledge from academia to society

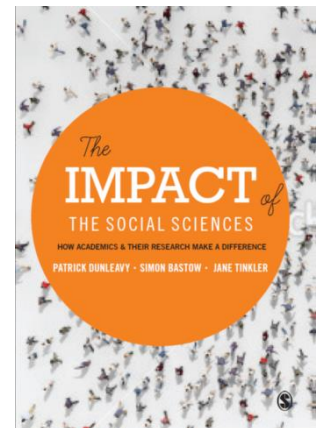
Single discipline processes *Wider society*



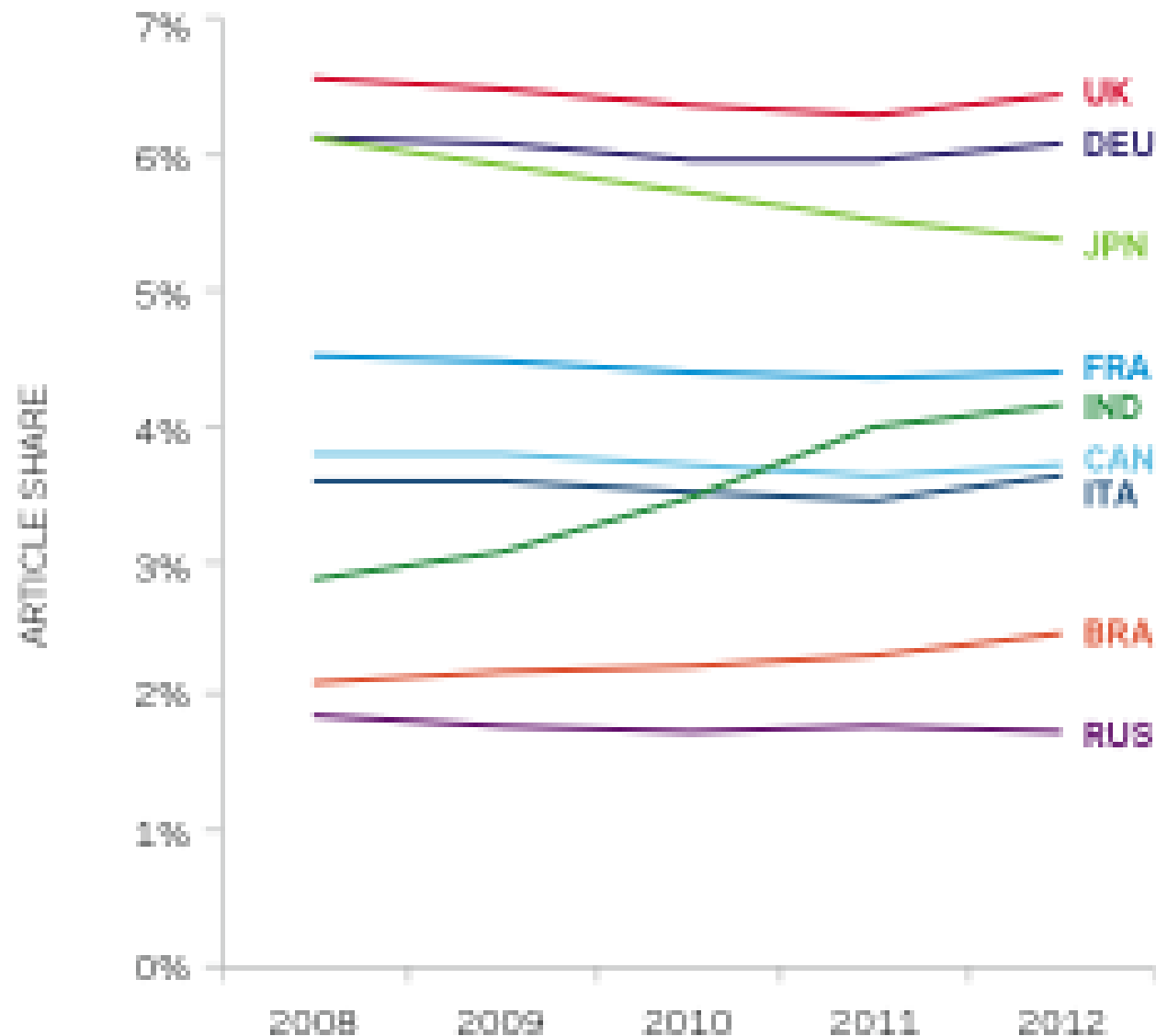
2. What can focusing on impact show us?



A. What we publish and how we publish

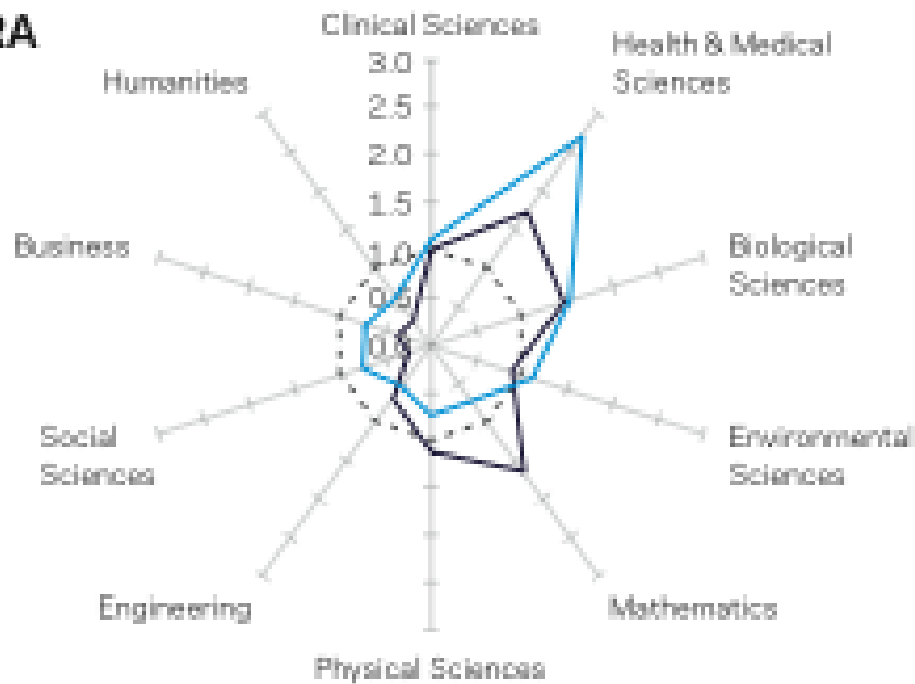


Brazil is one of the few countries seeing increasing global share of outputs

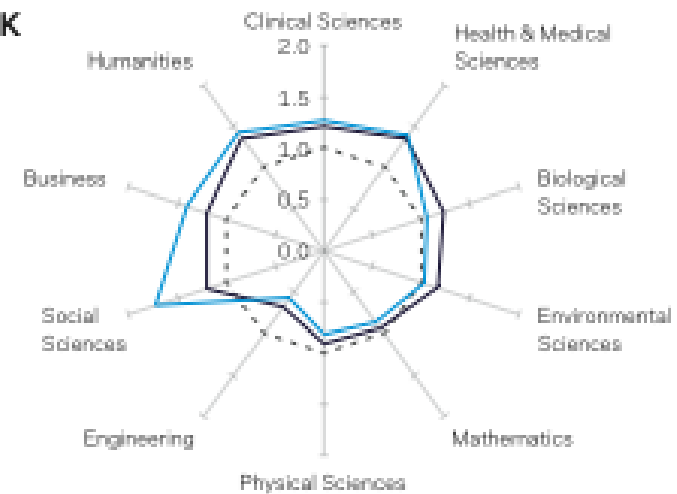


Brazil's output is increasingly strong on health and medical sciences

BRA



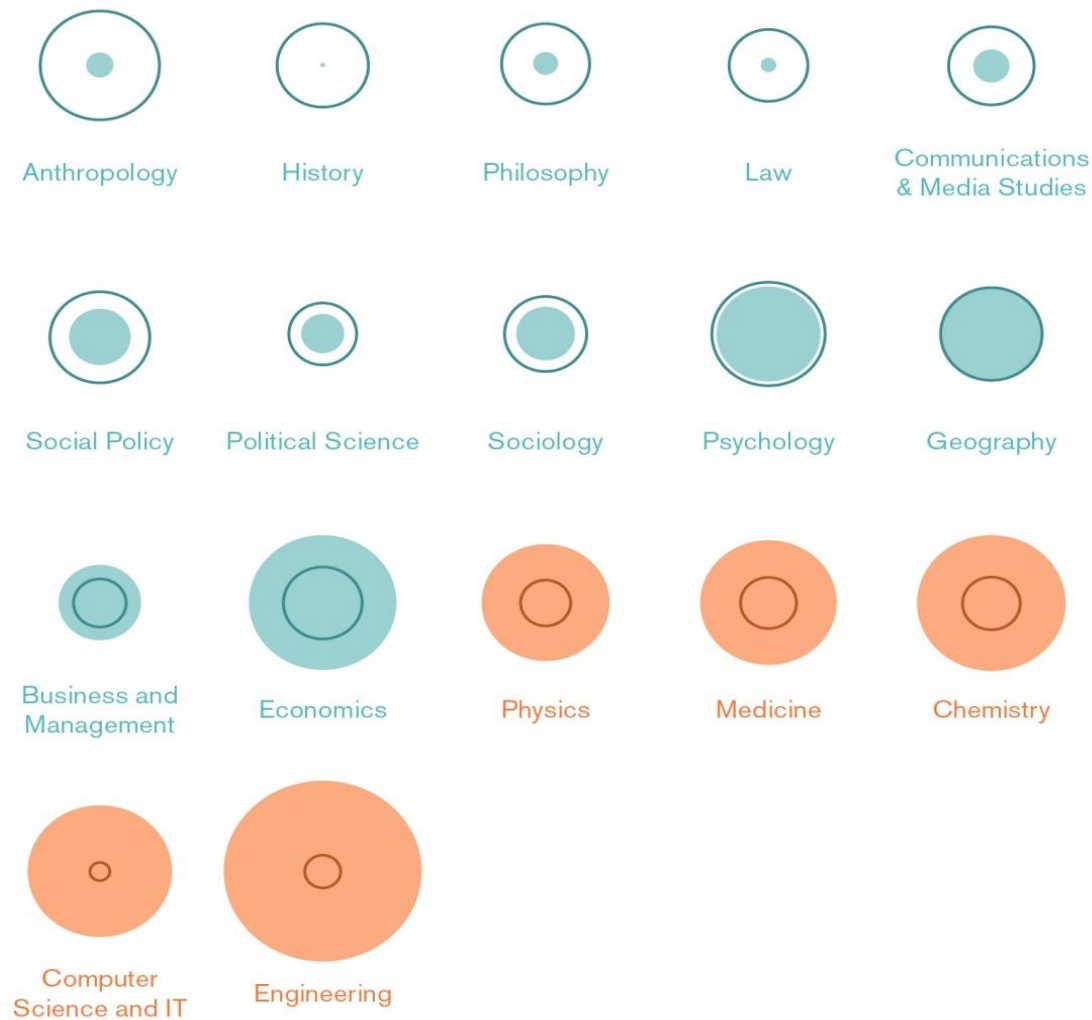
UK



— 2012

— 2002

- - World



Comparing academic and external citations shows interesting differences between disciplines



Average number of external mentions per academic



Average number of citations per article



For example, the wider one circle is over the other, the greater the orientation towards academic mention or external citation the

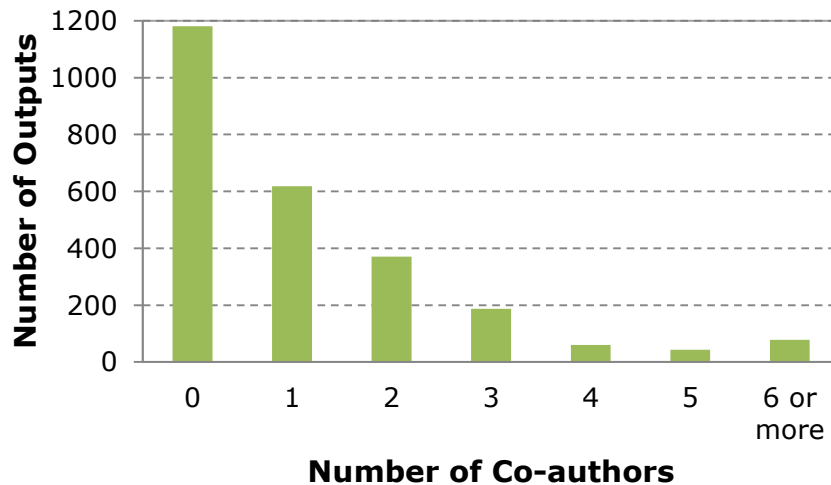


STEM

Social Science

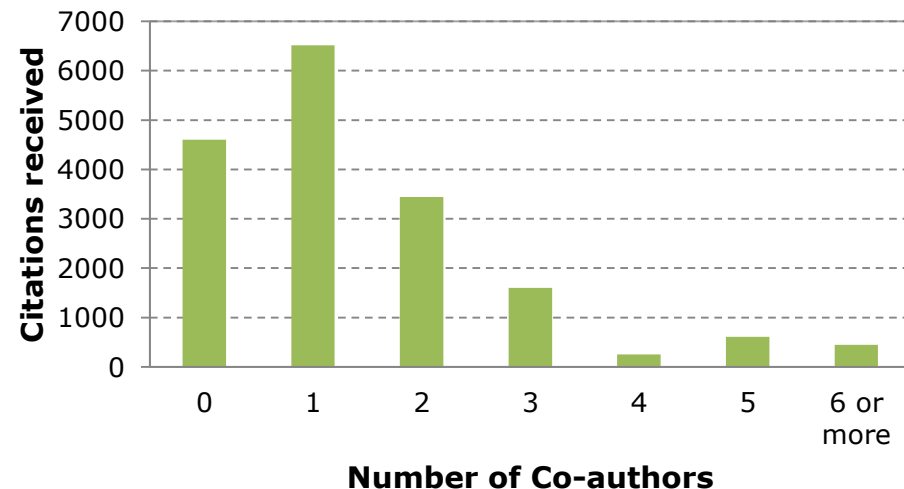
Collaborative research tends to get more citations

Co-authorship and Number of Outputs

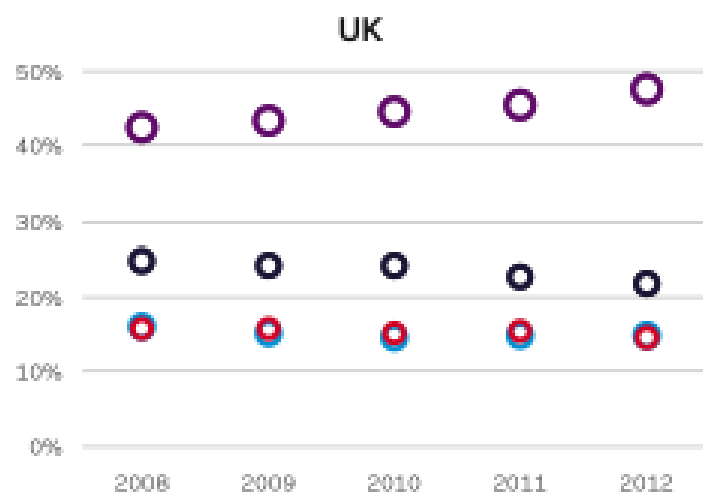
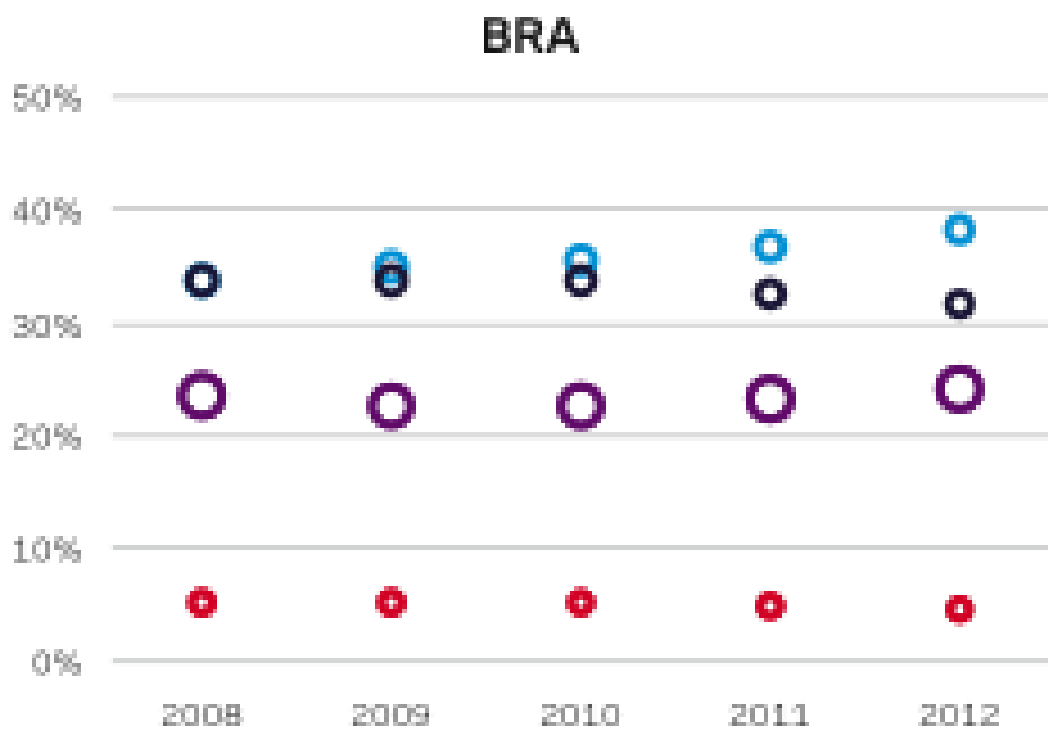


Most outputs in our dataset were single authored, but more cites went to outputs that had at least one other author

Co-authorship and Citations

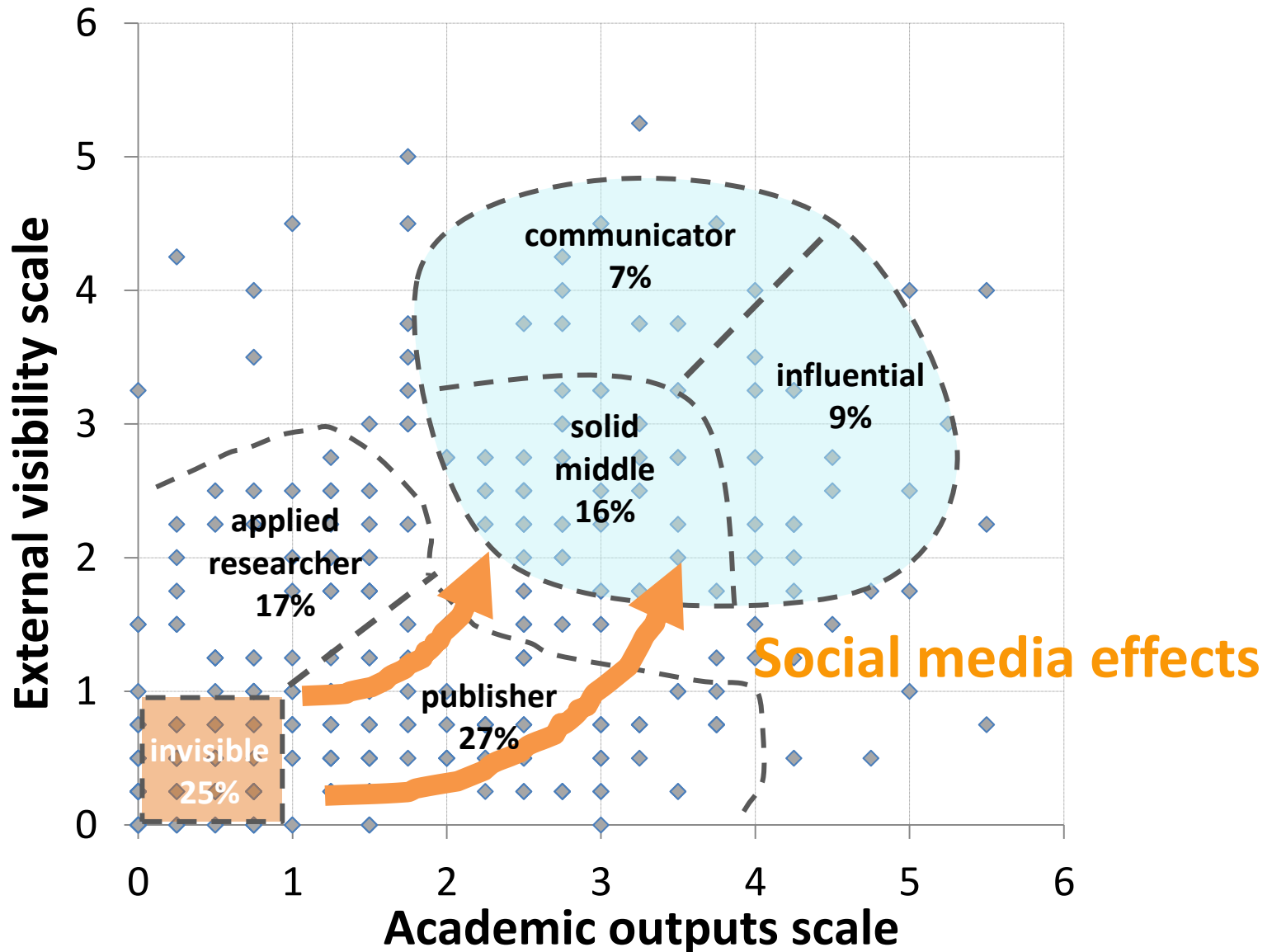


Brazil's high rate of national co-authorship is increasing while international co-authorship is stable

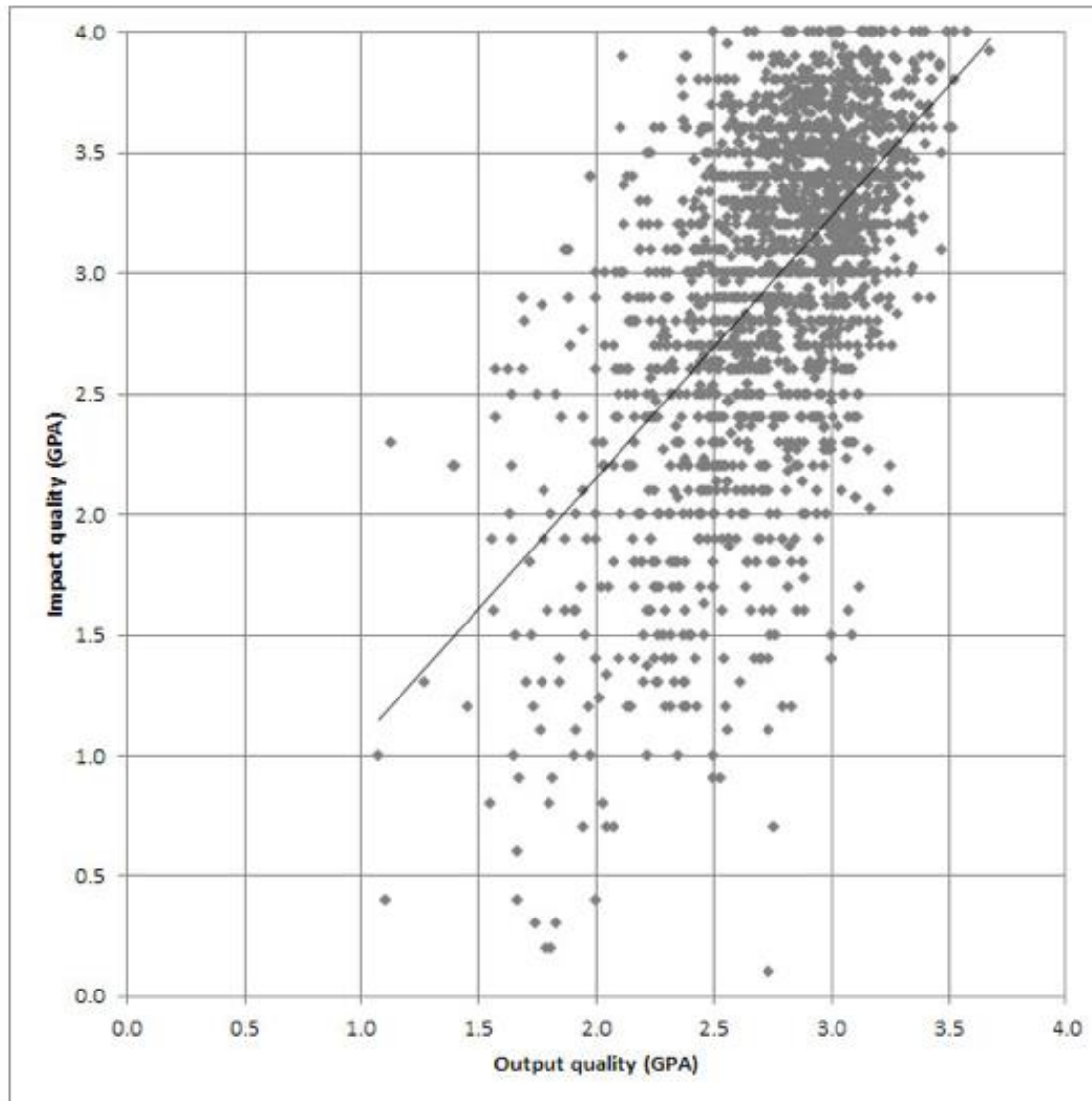


Single author Institutional National International

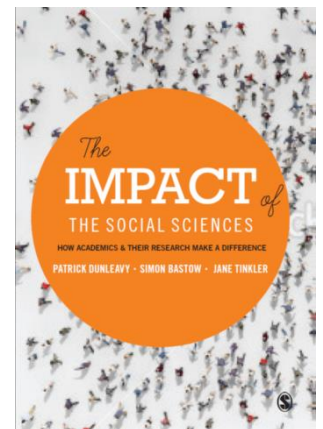
Can academics both publish and be impactful?



And results from the UK Research Excellence Framework in 2014 agree



B. How our work is communicated

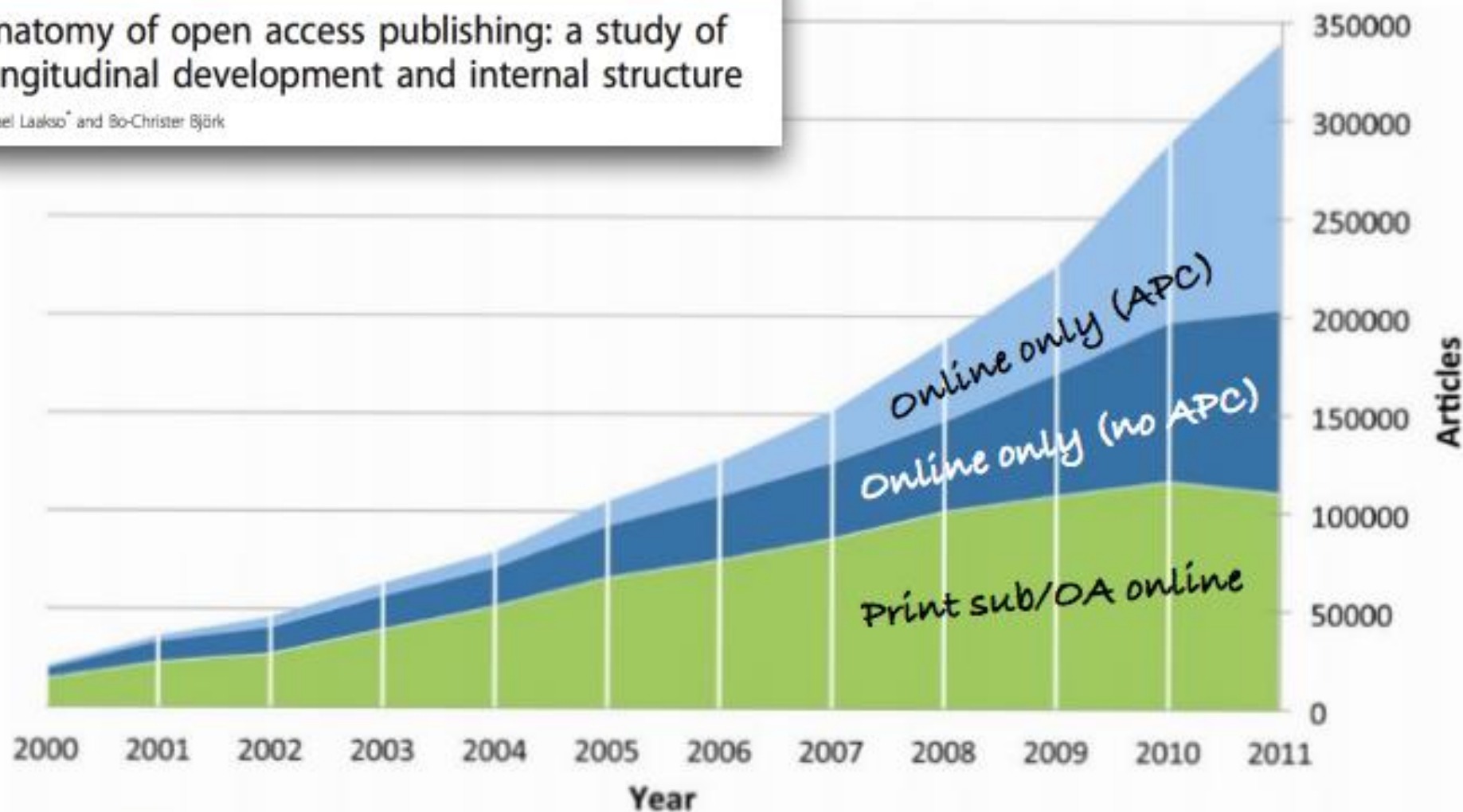


The increase in open access in the UK

UK: 35% Green OA

UK: 5% Gold OA

World: 17% Gold OA



The number of journals in SciELO and RedALyC, 2002-2011

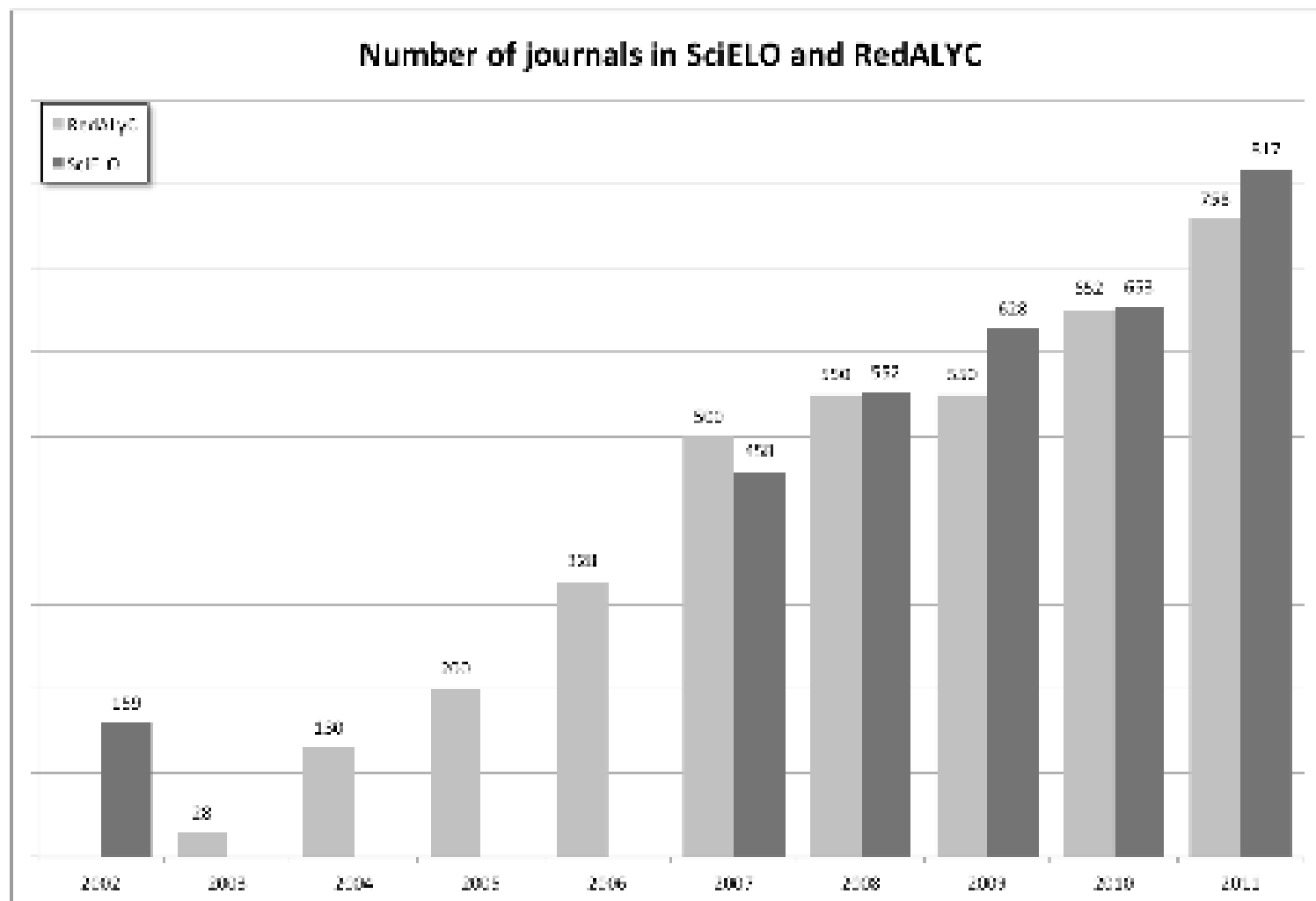
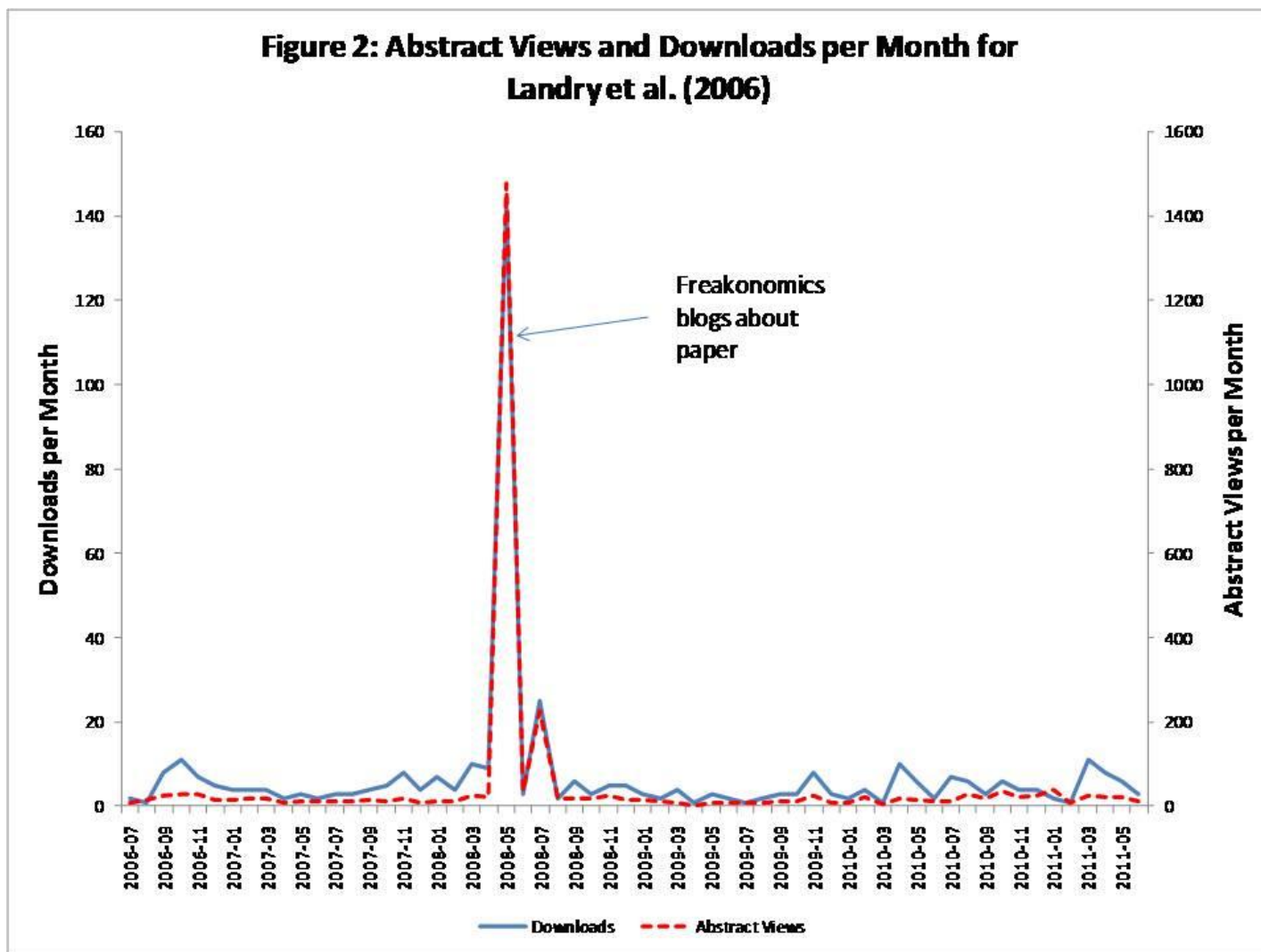
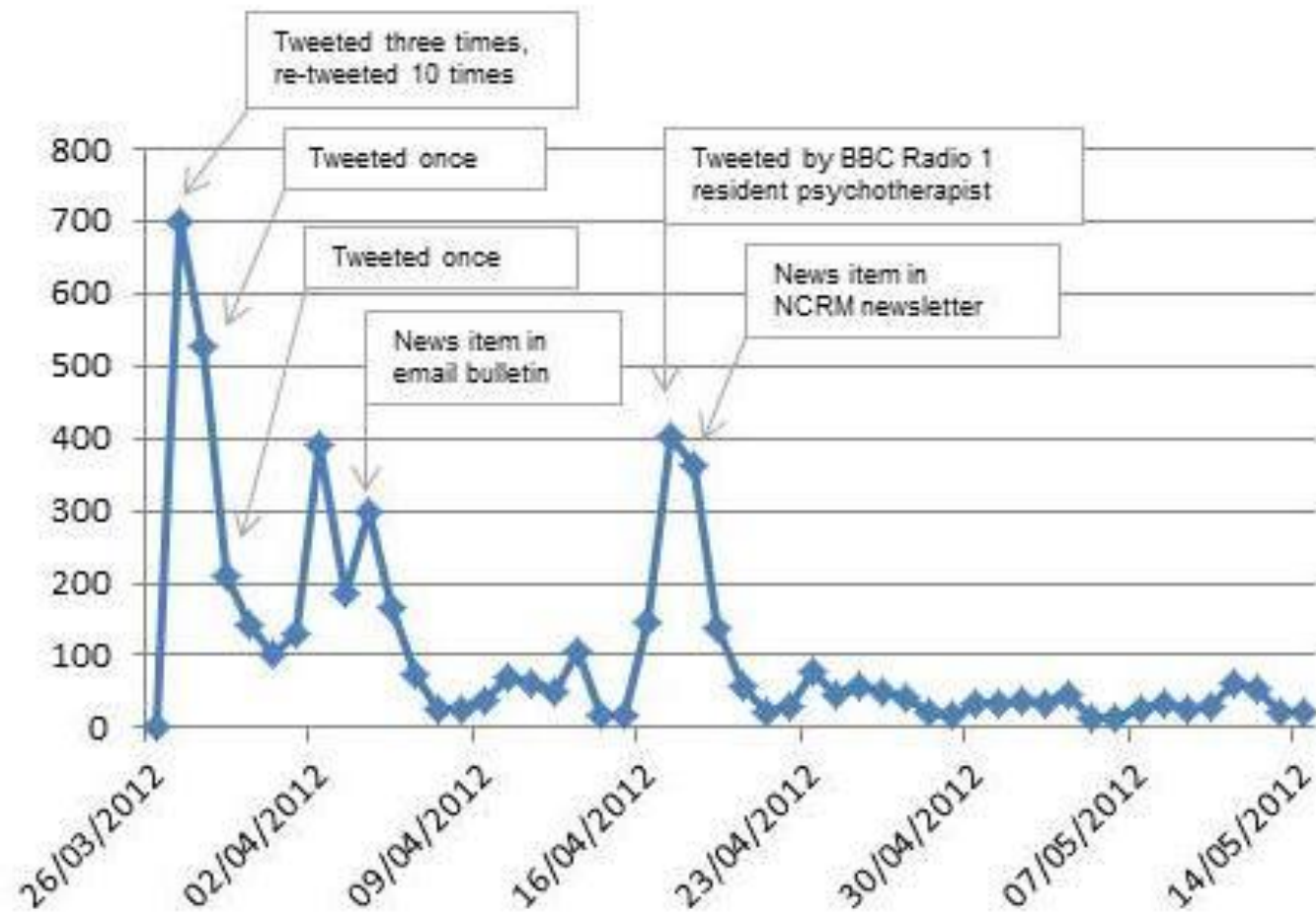


Figure 1 Number of Journals in RedALyC and SciELO since 2002 (Source: <http://archive.org> snapshots of <http://www.scielo.org> and <http://www.redalyc.org>, not all years available)

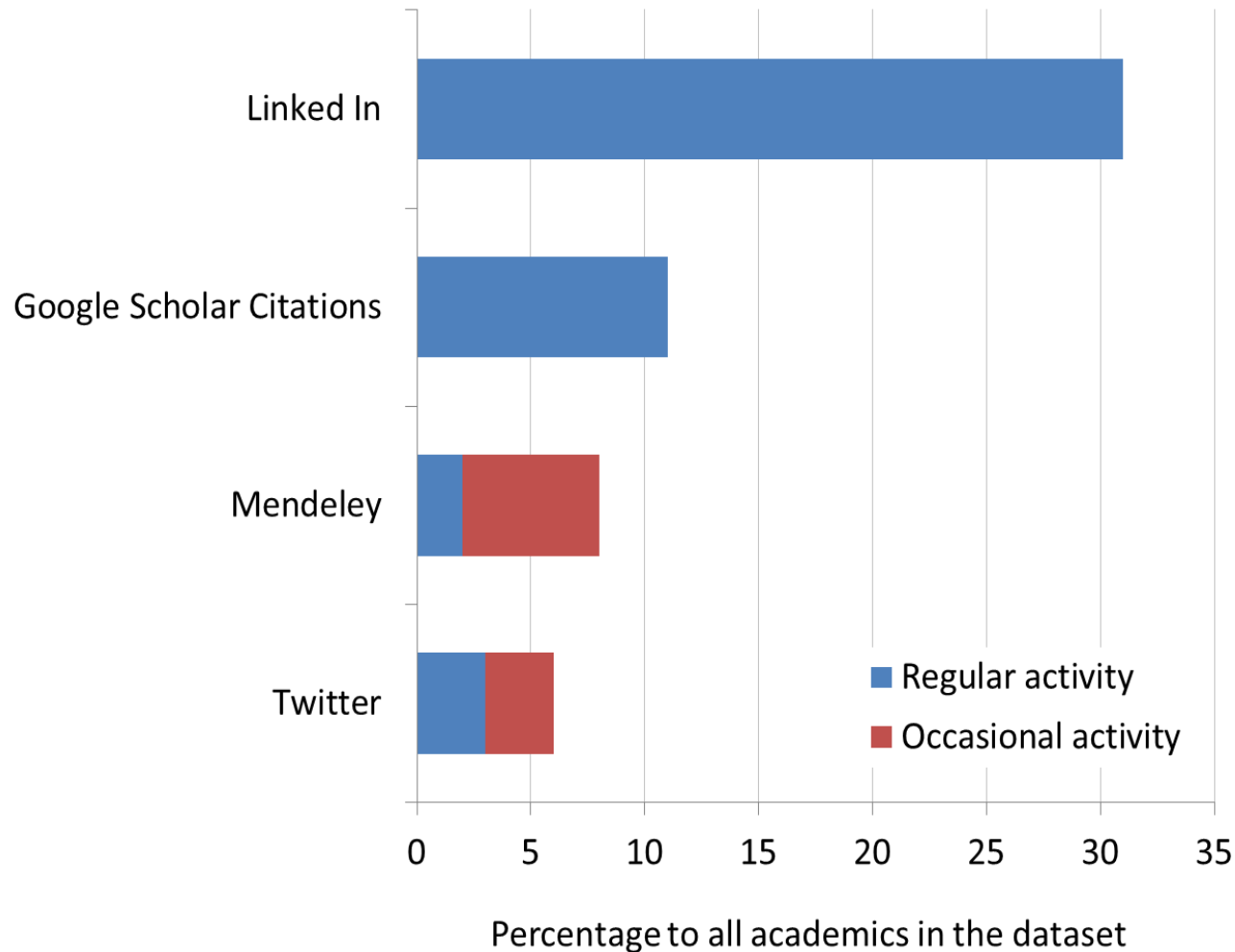
Academic blogging means more people read
your work



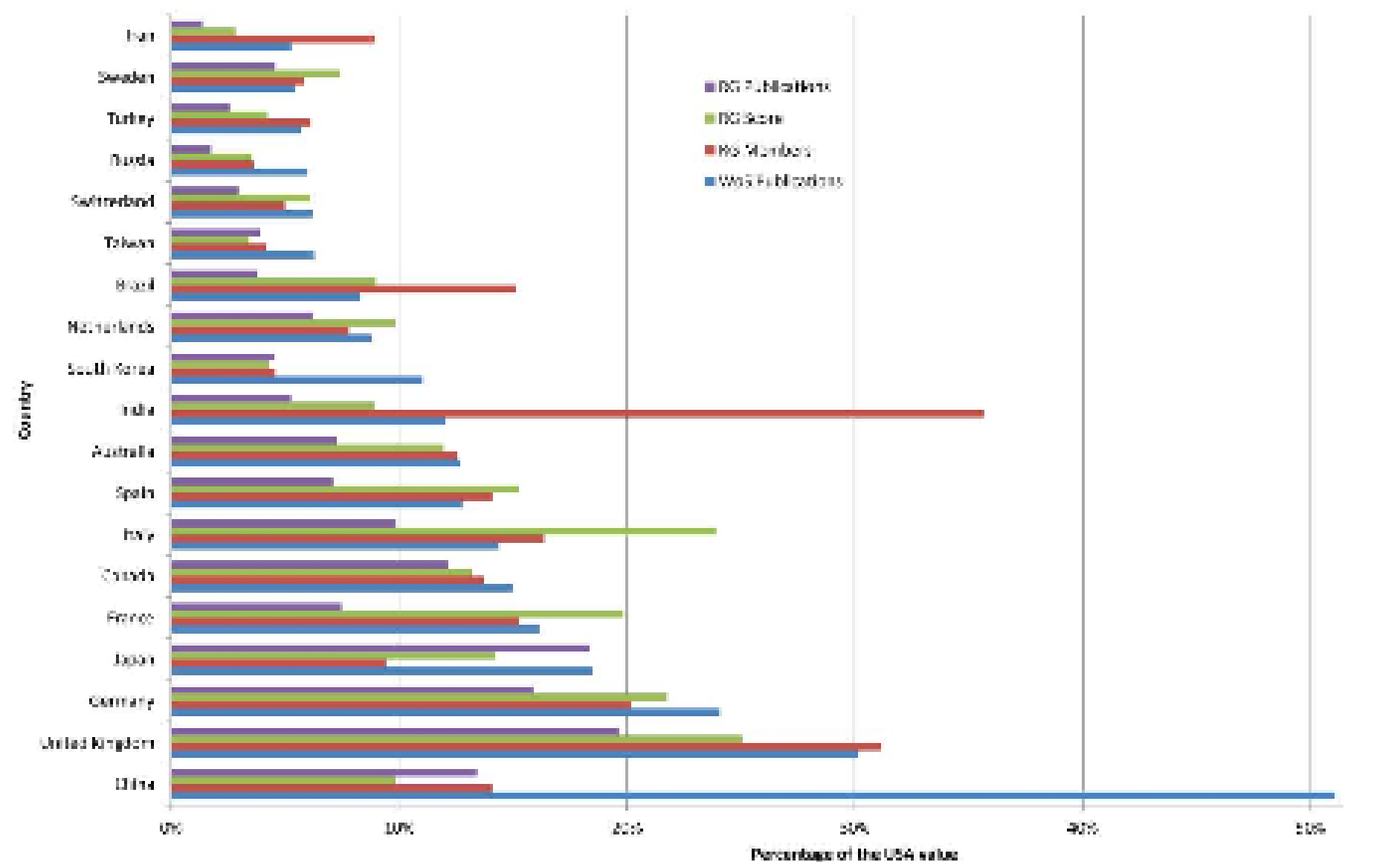
Twitter is increasingly more useful for dissemination than other channels



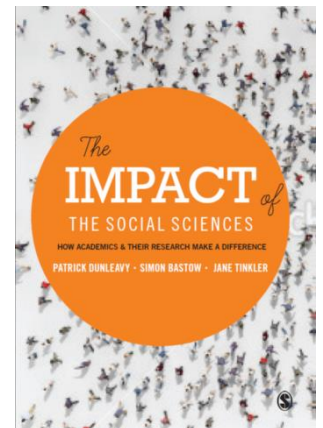
Academics are making use of digital tools to share their research



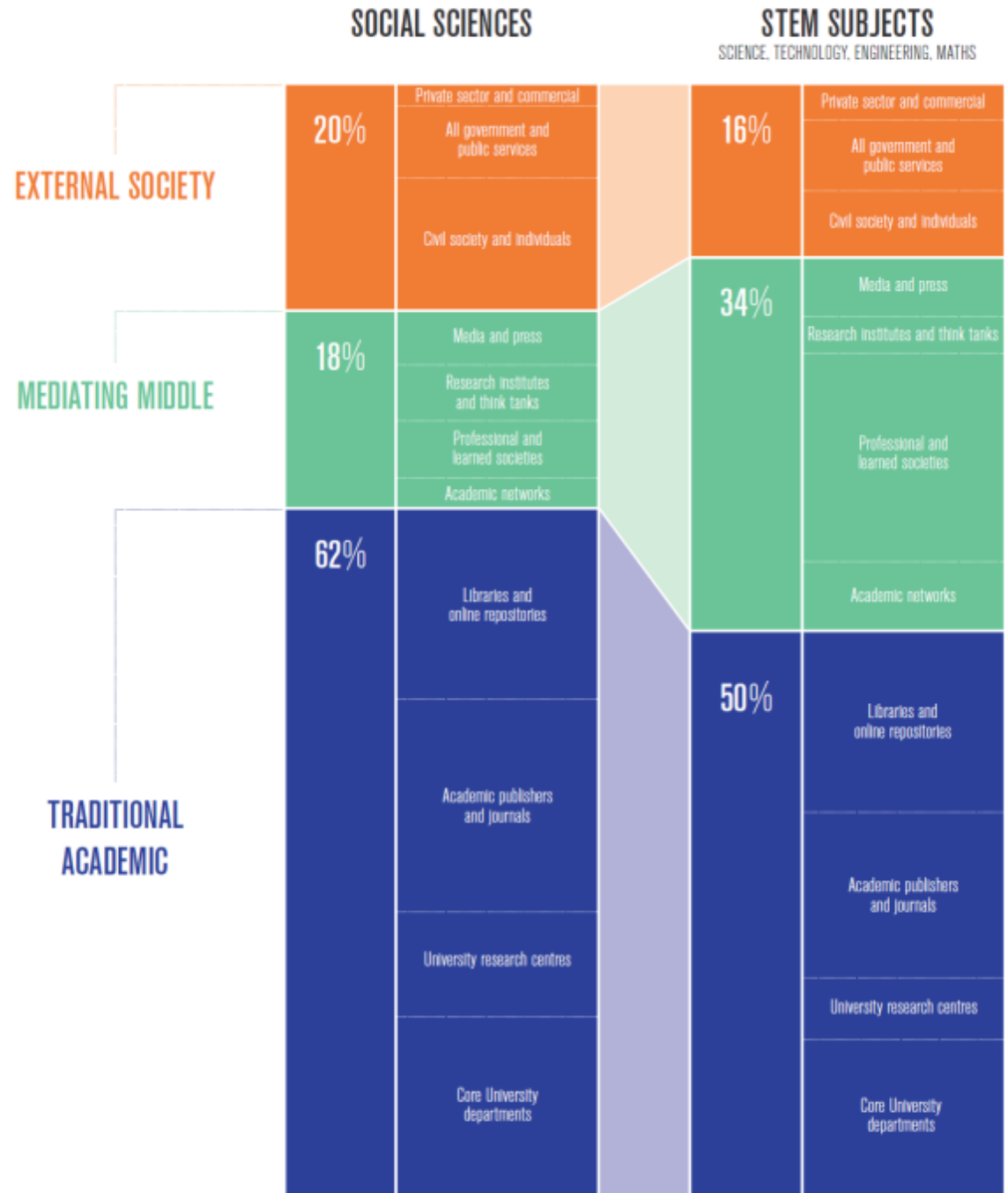
Brazil is a great user of Research Gate

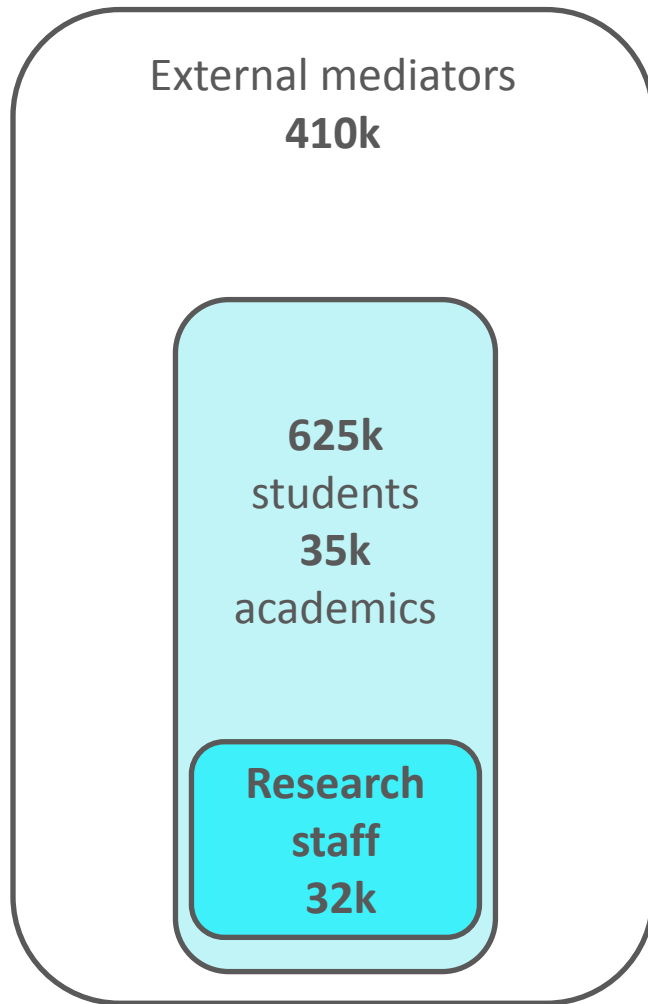


C. How our work is translated

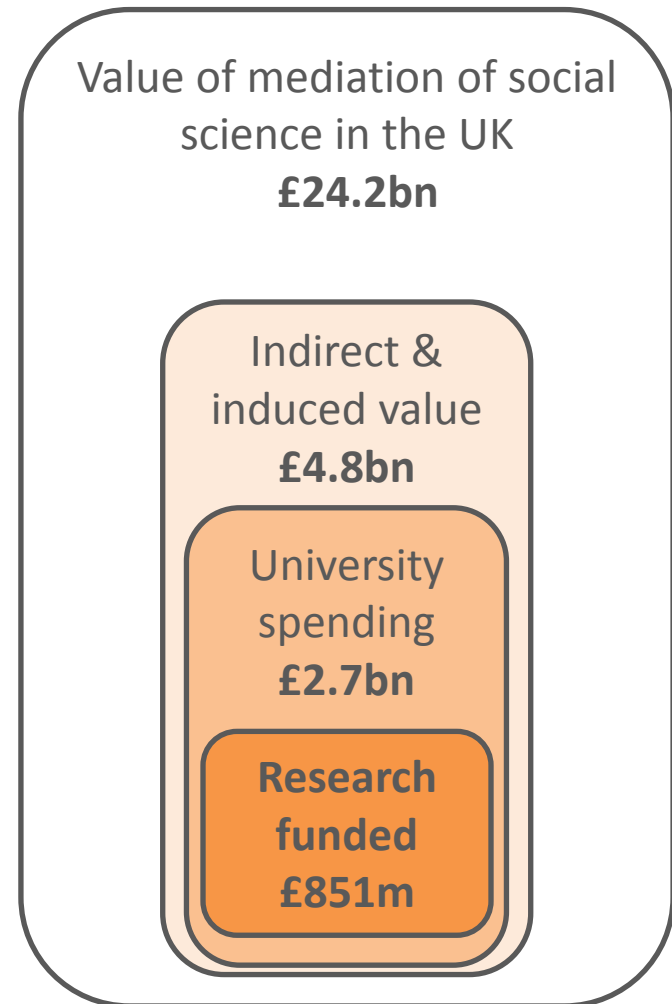


A key problem for the social sciences is the relative lack of ‘mediating middle’ that builds long-term links and identifies impacts



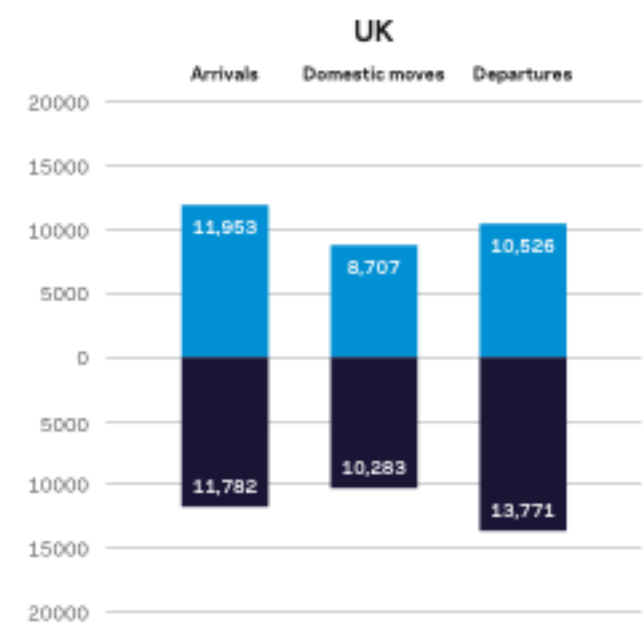
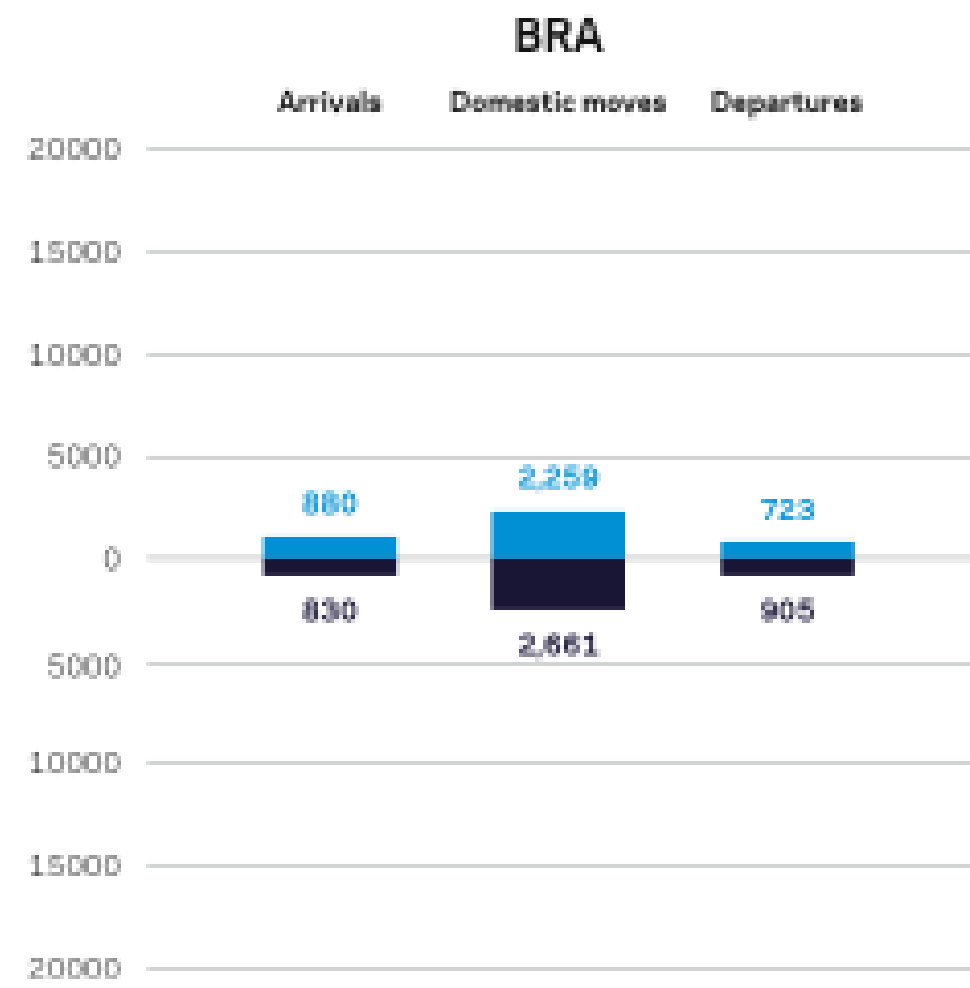


People value



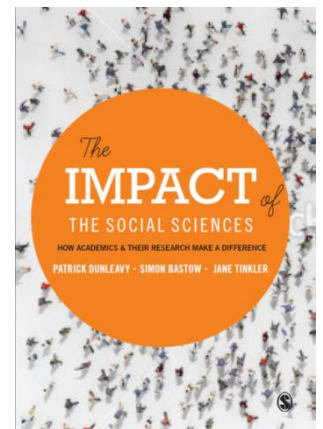
Economic value

Cross-sector moves of researchers between academia and industry, 1996-2012



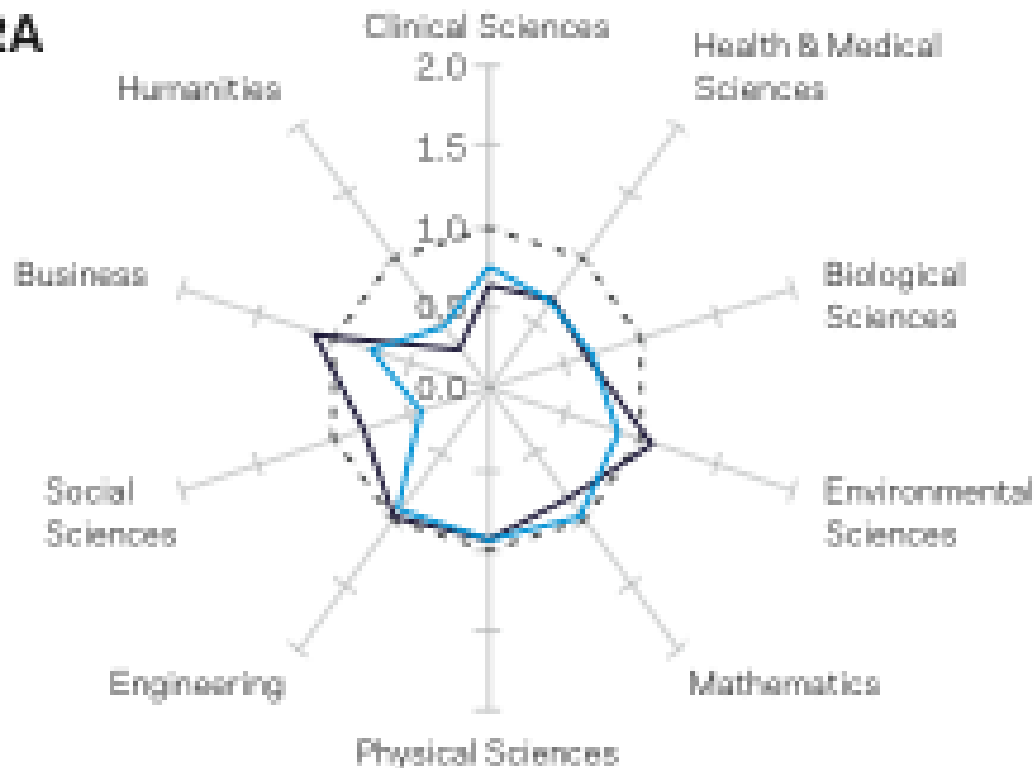
Industry to academia Academia to industry

D. The metrics used to indicate research qualities/quantities

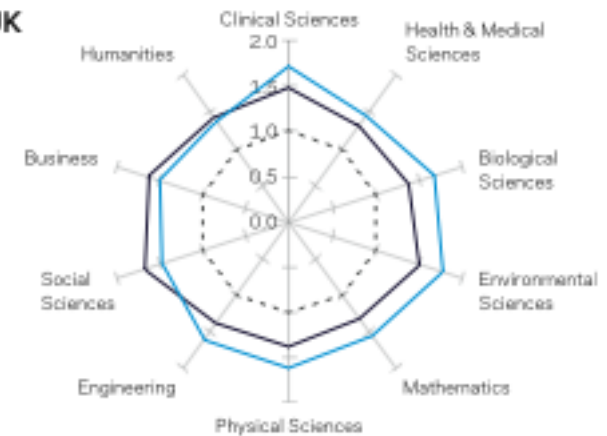


Field-weighted citation impact has gone down for some subjects between 2002 and 2012

BRA



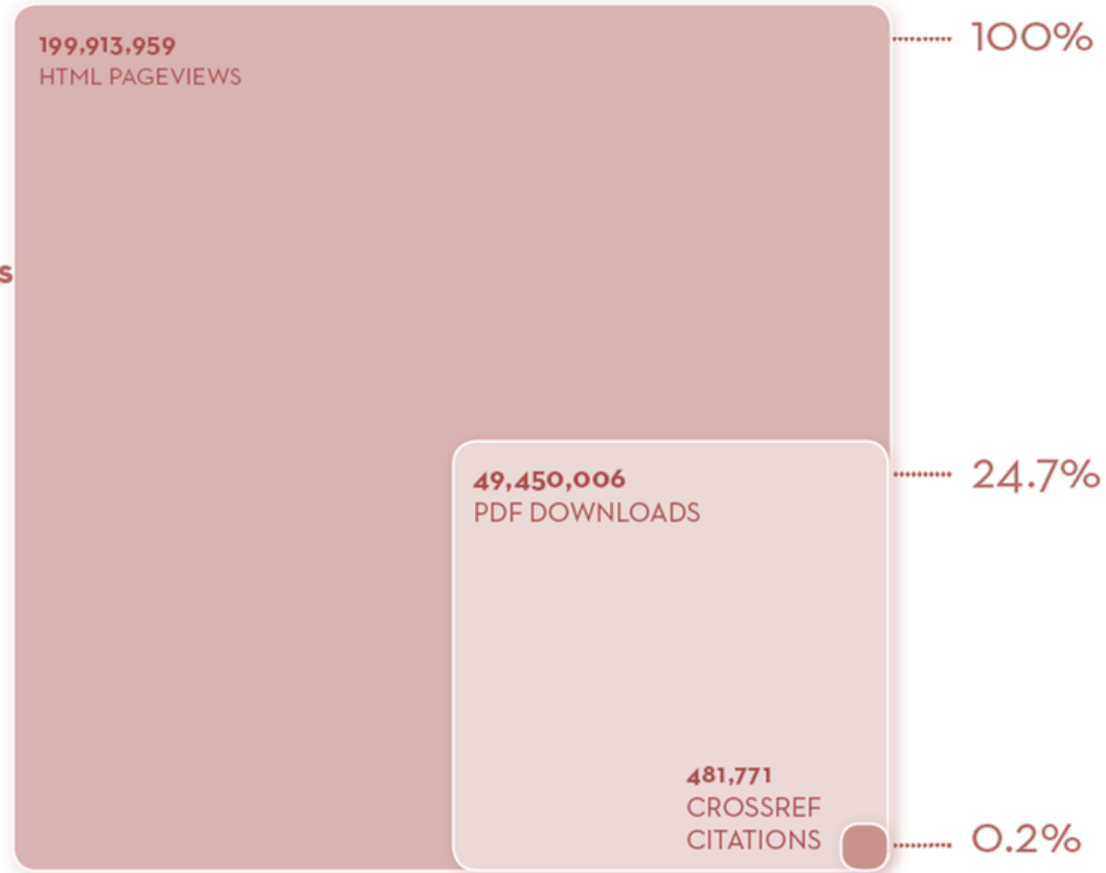
UK



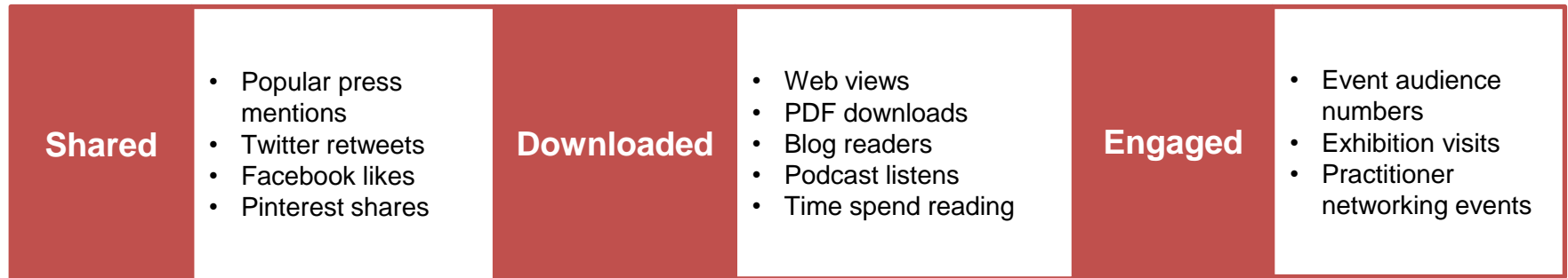
— 2012 — 2002 - - World

Citations only give you part of the picture on the use of academic research

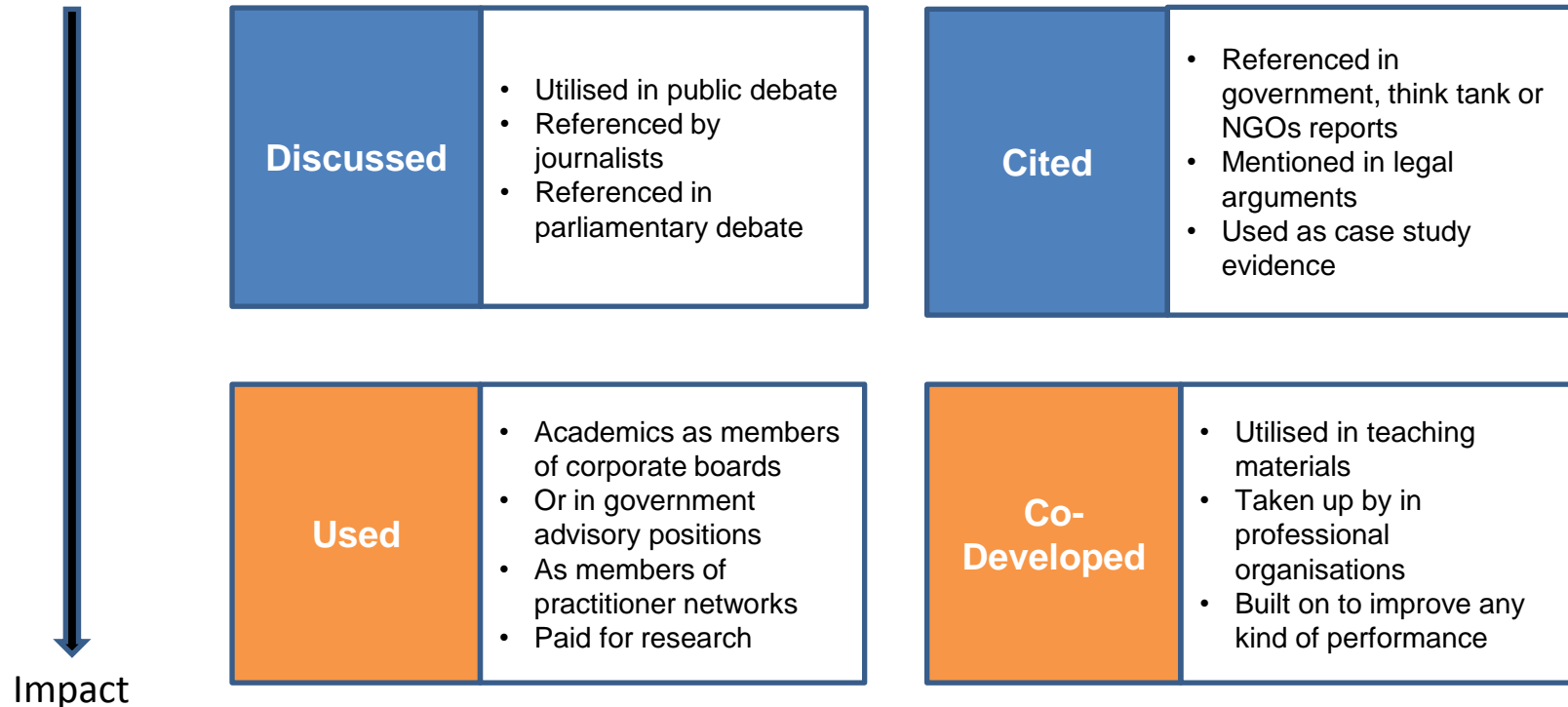
Article-Level Metrics
for
80,602 PLOS
Papers Published
until May 20, 2013



What would impact metrics include?



Dissemination





The Metric Tide

Report for the Independent Review of the Role
of Metrics in Research Assessment and
Management

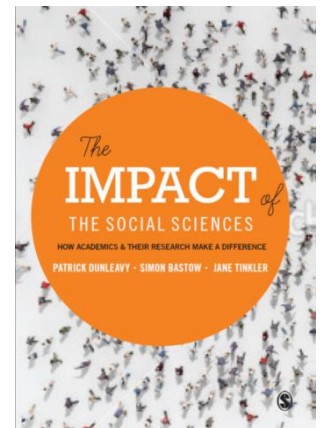
Responsible metrics

Responsible metrics can be understood in terms of:

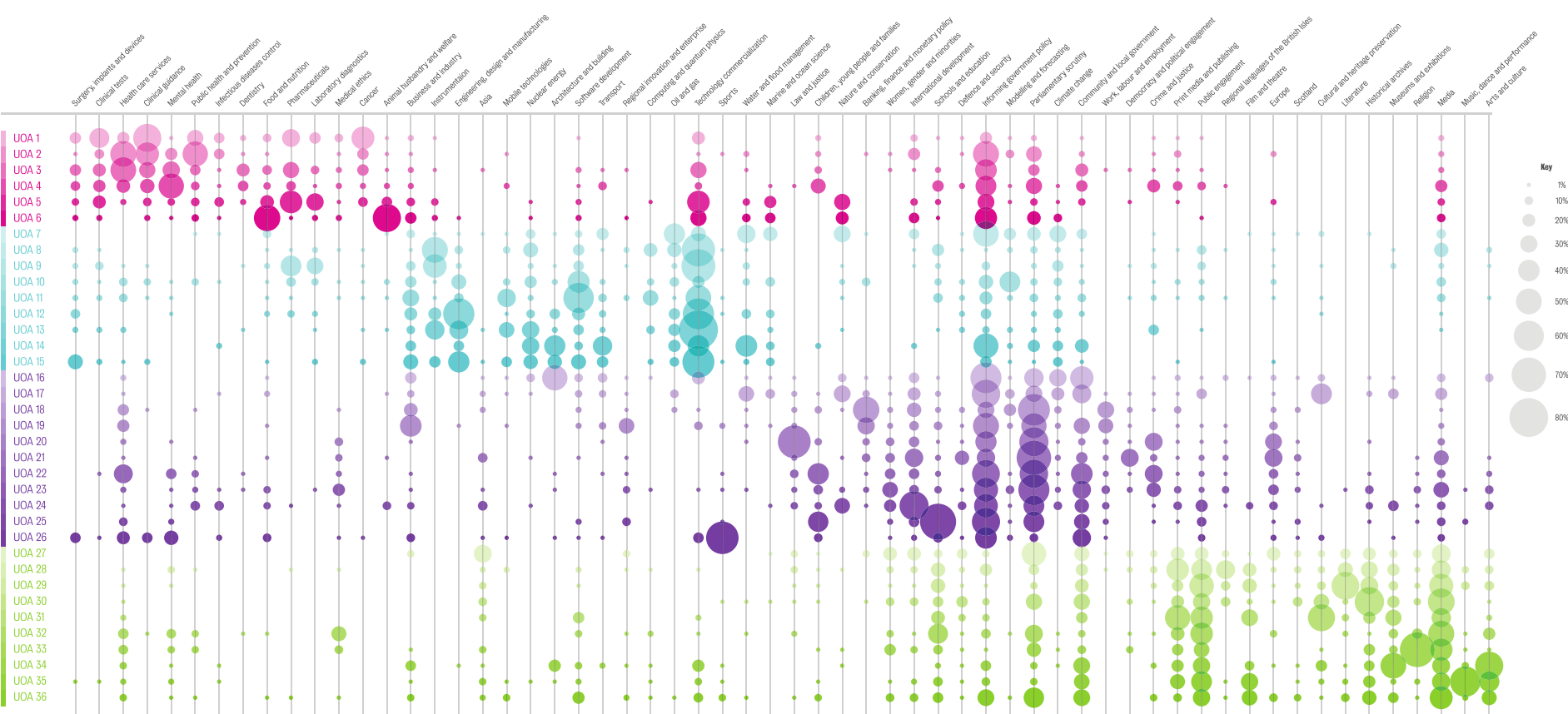
- **Robustness:** basing metrics on the best possible data in terms of accuracy and scope;
- **Humility:** recognizing that quantitative evaluation should support – but not supplant – qualitative, expert assessment;
- **Transparency:** keeping data collection and analytical processes open and transparent, so that those being evaluated can test and verify the results;
- **Diversity:** accounting for variation by field, using a variety of indicators to reflect and support a plurality of research & researcher career paths;
- **Reflexivity:** recognizing the potential & systemic effects of indicators and updating them in response.



3. Where are the difficulties in creating impacts?

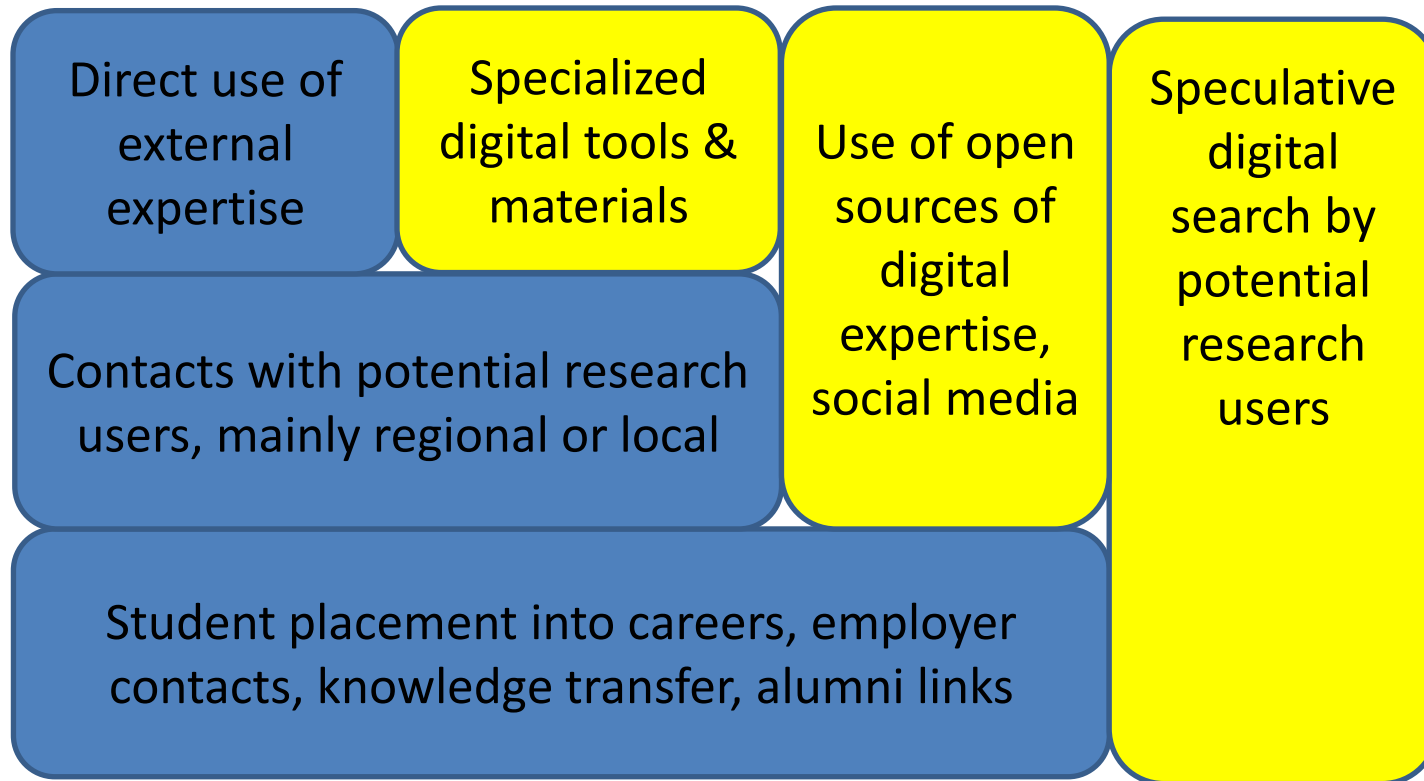


Different types of impact are more common in different disciplines



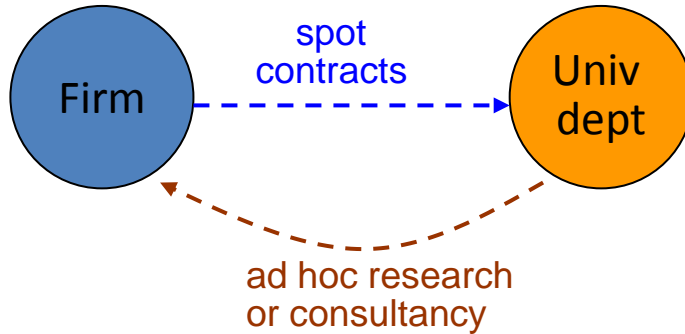
Source: Kings College London/Digital Science (2015)

Conventional and digital mechanisms for the flow of influence

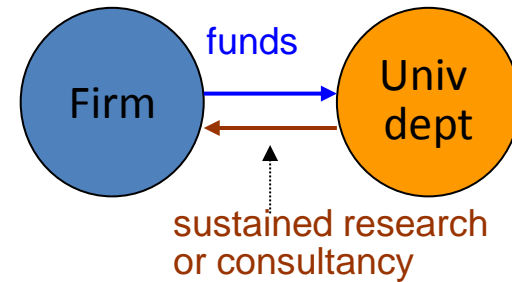


Some ways universities interact with business

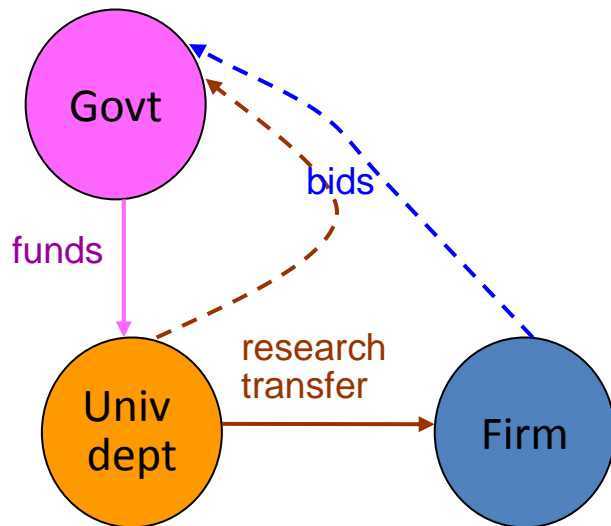
(i) Episodic contracting



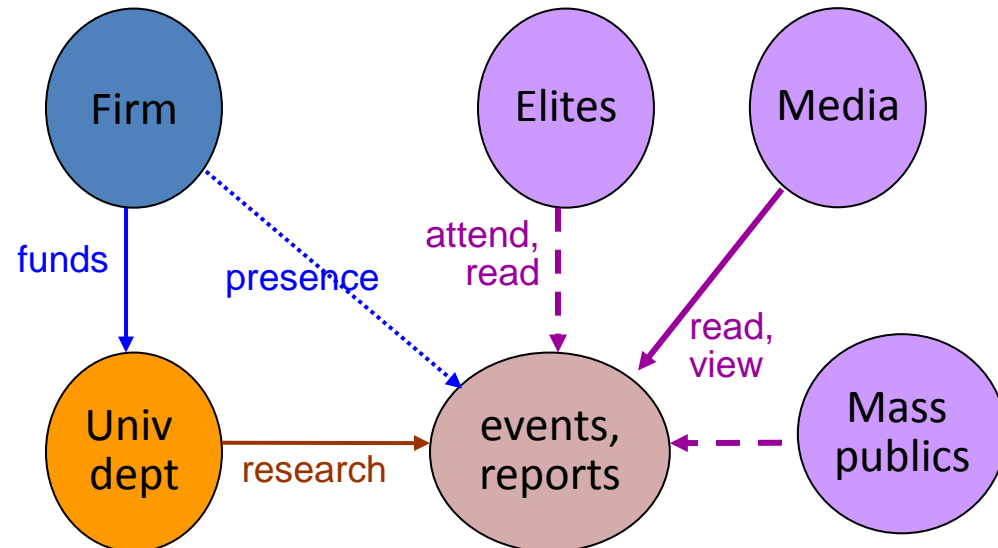
(iii) Continuous partnership



(v) Technology transfer

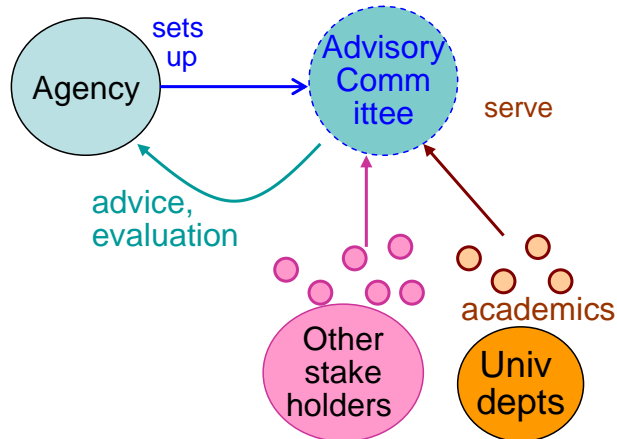


(x) Marketing/ corporate social responsibility

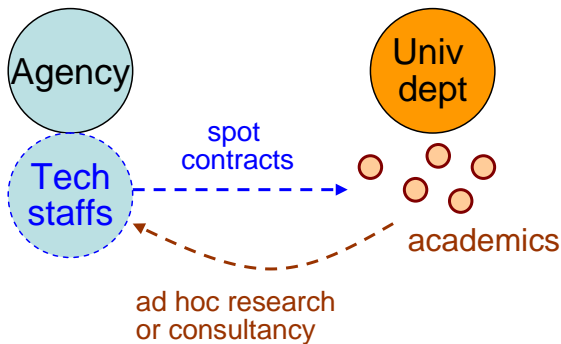


Some ways universities interact with government

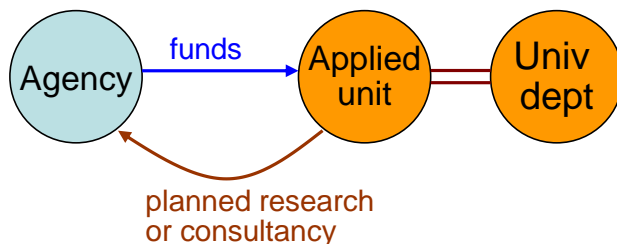
(i) Advisory committees



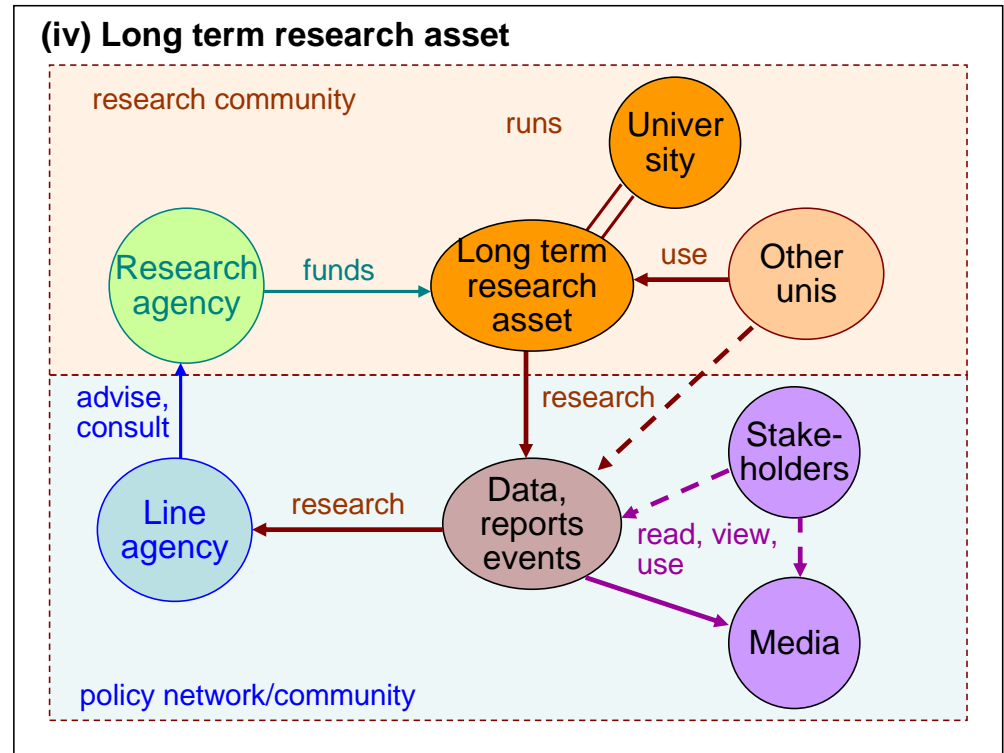
(ii) Episodic contracting



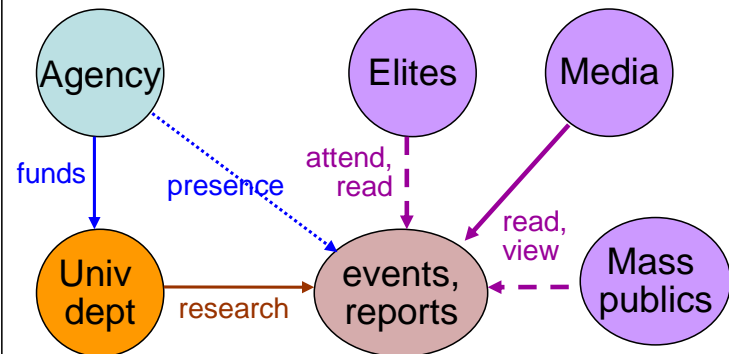
(iii) Strategic commissioning



(iv) Long term research asset

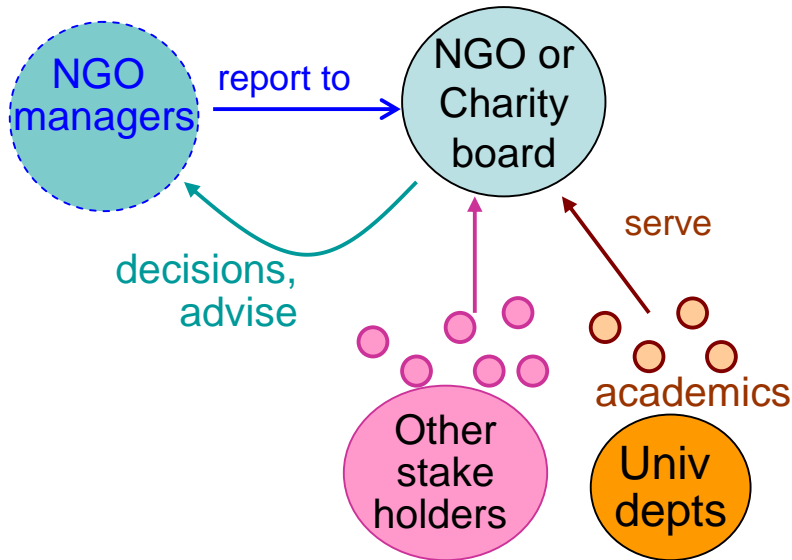


(v) Policy marketing and dissemination

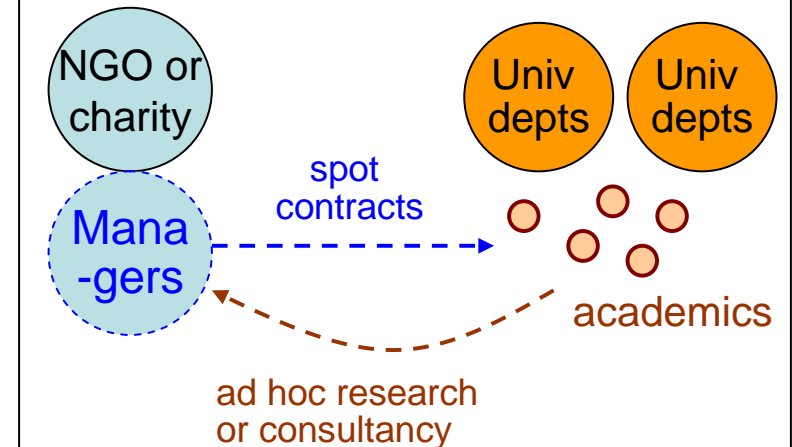


Some ways universities interact with NGOs

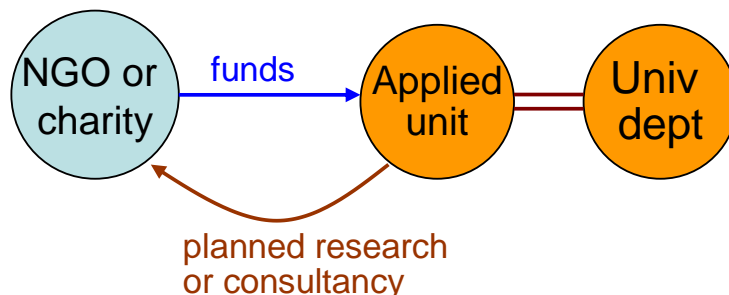
(i) Academic service on NGO boards



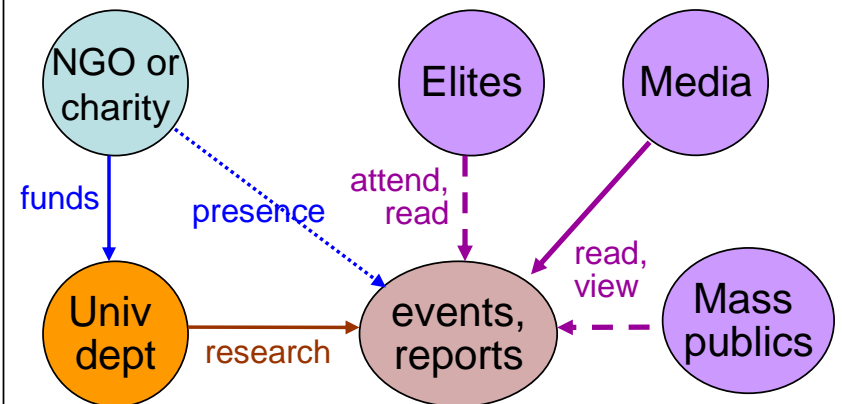
(ii) Episodic contracting



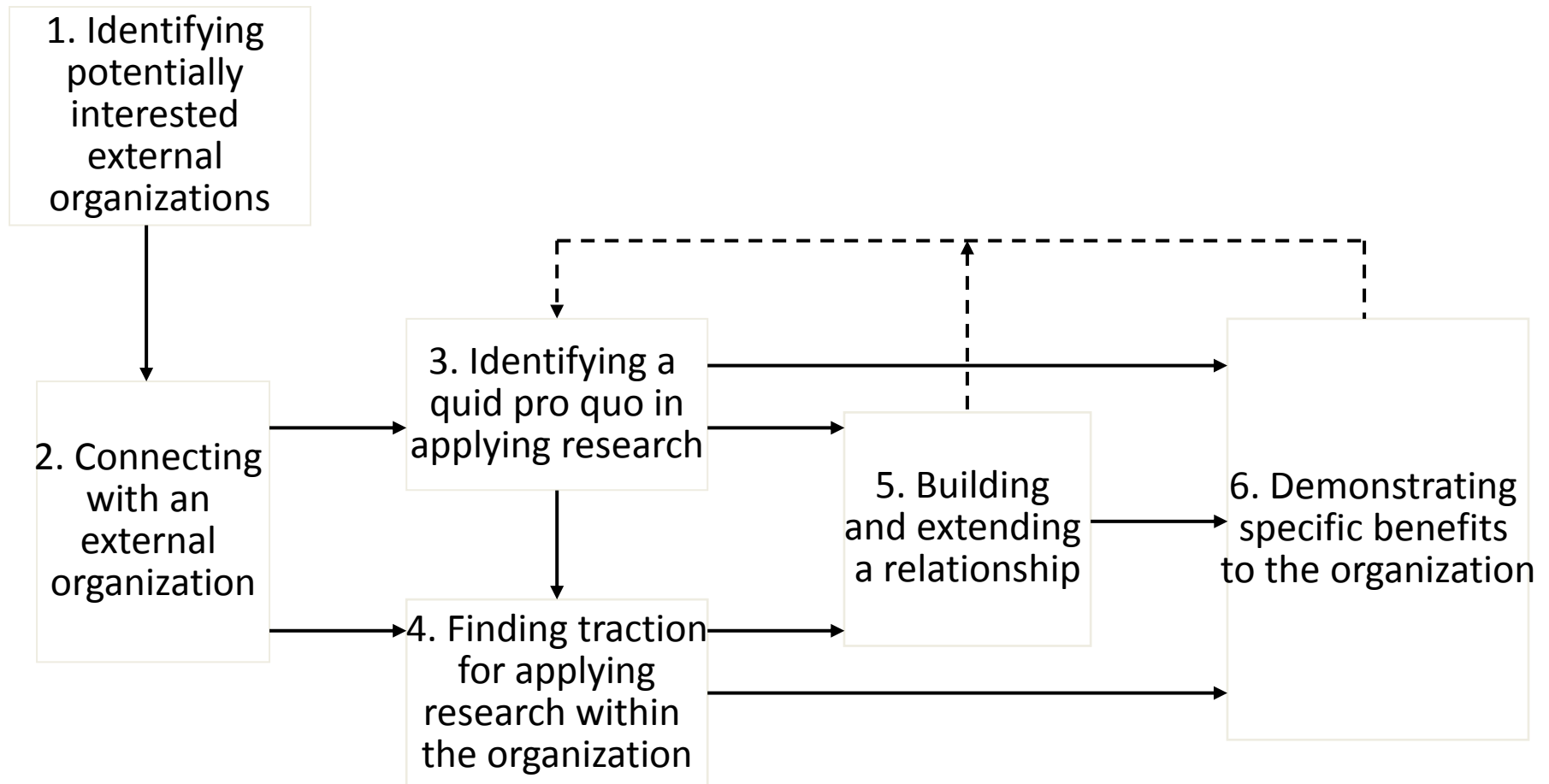
(iii) Strategic commissioning



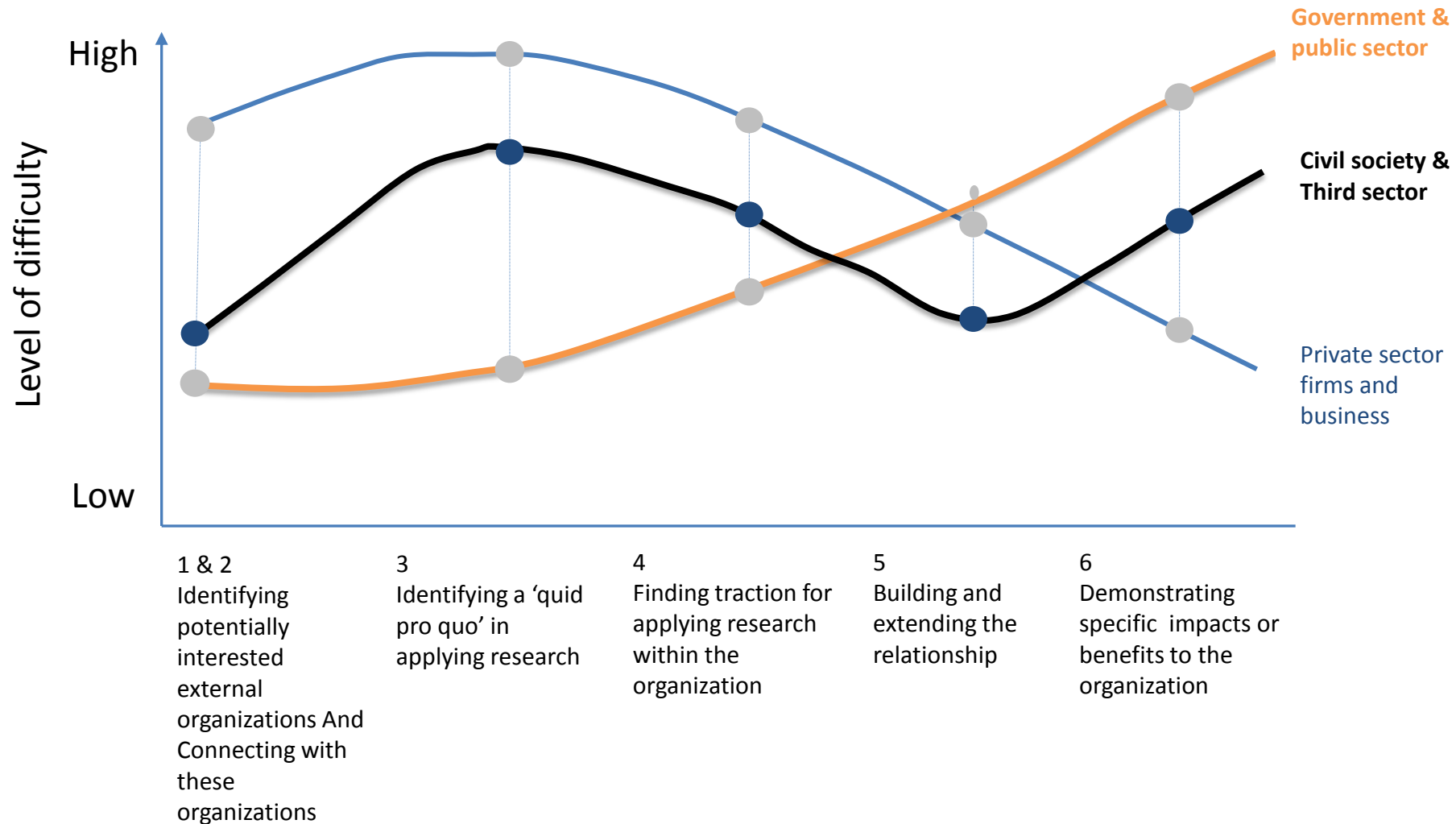
(iv) Policy marketing and dissemination



The six stages of building relationships with external stakeholders



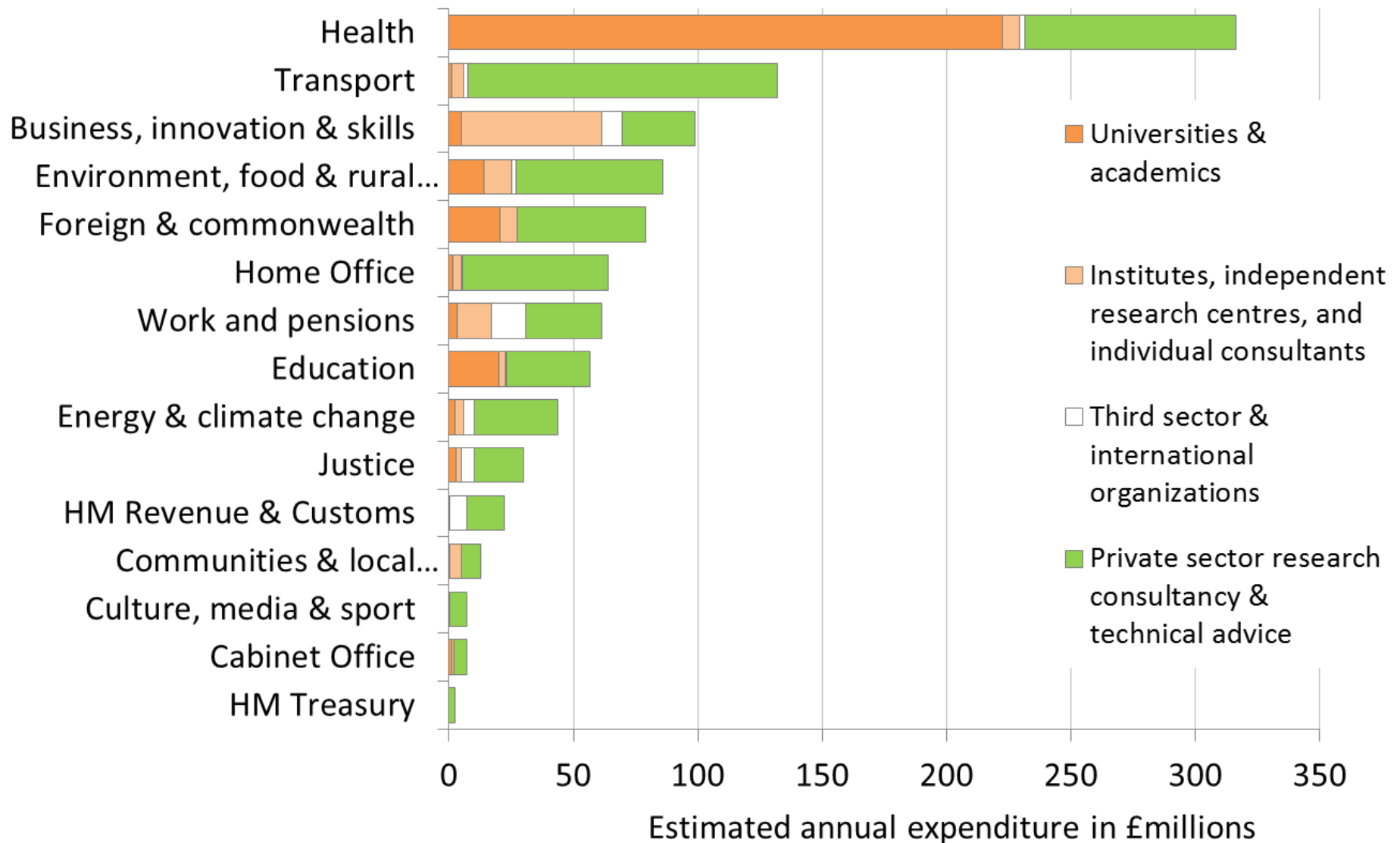
Crunch points in the impact process vary for different sectors



Mismatches between what academics and policymakers /business leaders value in terms of research

Academics	1 st choice	Pure (basic) research
	2 nd choice	Pure but applicable research
	3 rd choice	Immediately applicable research
Business leaders, government officials and politician	1 st choice	Immediately applicable research
	2 nd choice	Pure but applicable research
	3 rd choice	Pure (basic) research

In the UK, an example is the increased use of private sector research



The pressures on creating successful partnerships

Higher Education
Institution



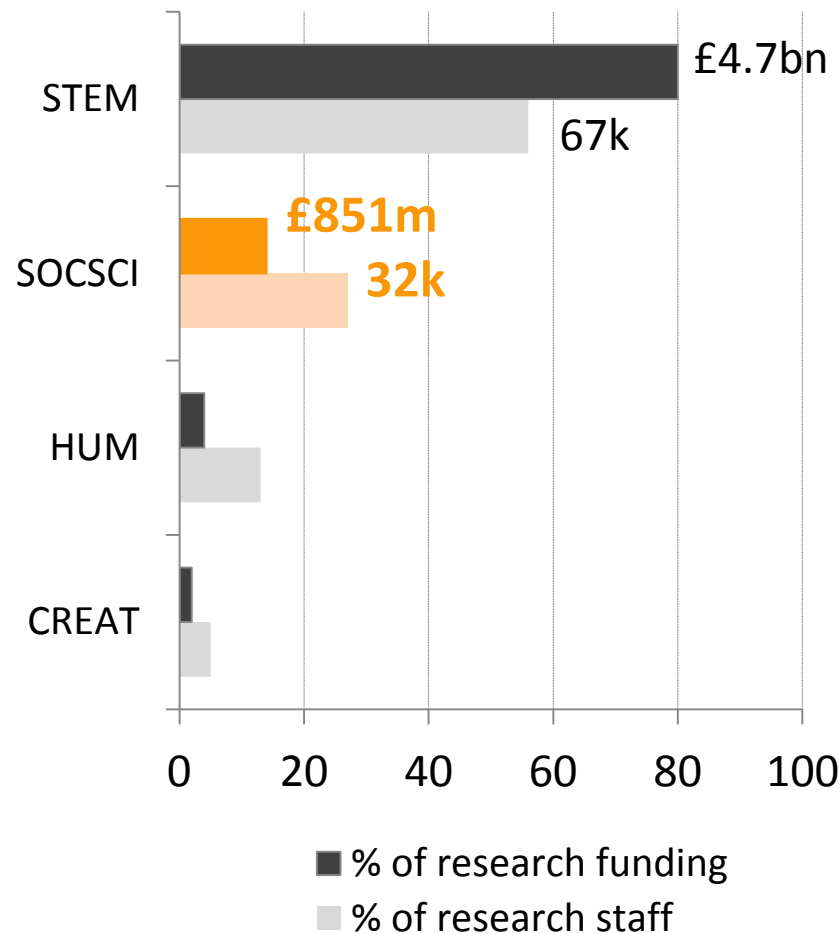
Private / public / third
sector organisation

- Lack of time
- Bureaucracy and inflexibility of HEI administration
- Difficulties in identifying partners
- Insufficient rewards and lack of awareness of the benefits from the interactions
- Lack of understanding by academics of the process
- Capacity and capability of the KE system still developing / evolving

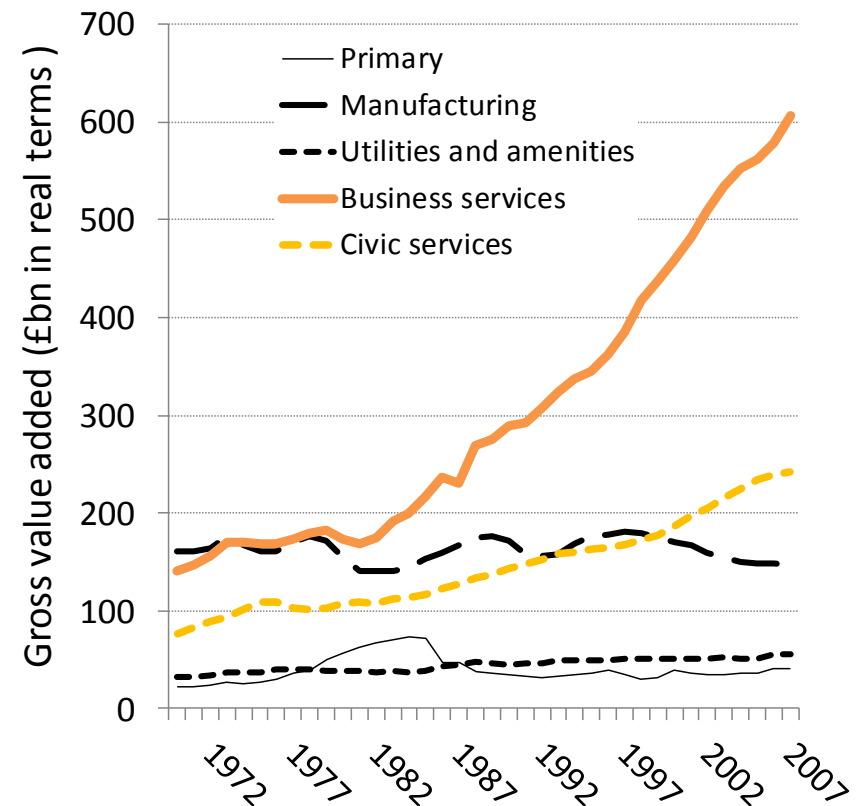
- Lack of resources within external organisations to fund the KE engagement
- Insufficient benefits from the interaction
- Lack of interest by external organisations and lack of demand for KE
- Intellectual property agreements as a barrier to some, albeit minority of, KE engagement

We have a STEM-dominated research culture...

... and a social science dominated economy

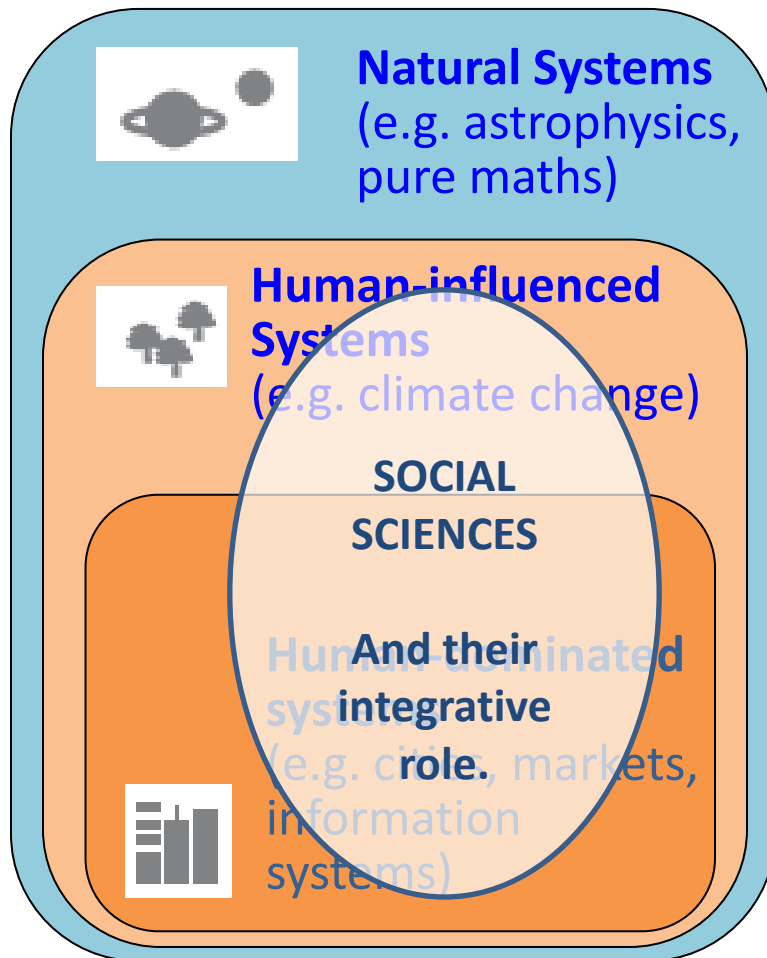


Source: LSE PPG 2014



Source: EU Klems data, 2009

Big research challenges involve 'human-influenced' and 'human-dominated' systems



*We can start to answer the big and deep questions that sociologists ask but with statistical rigour of large datasets from computer science. I think a lot of this is about finding a **commonality of language** which doesn't exist today.*

*We did the thing that social science does best, right? Which is not to answer a particular question, but to **change the way in which people think about what the questions are.***

For more details:

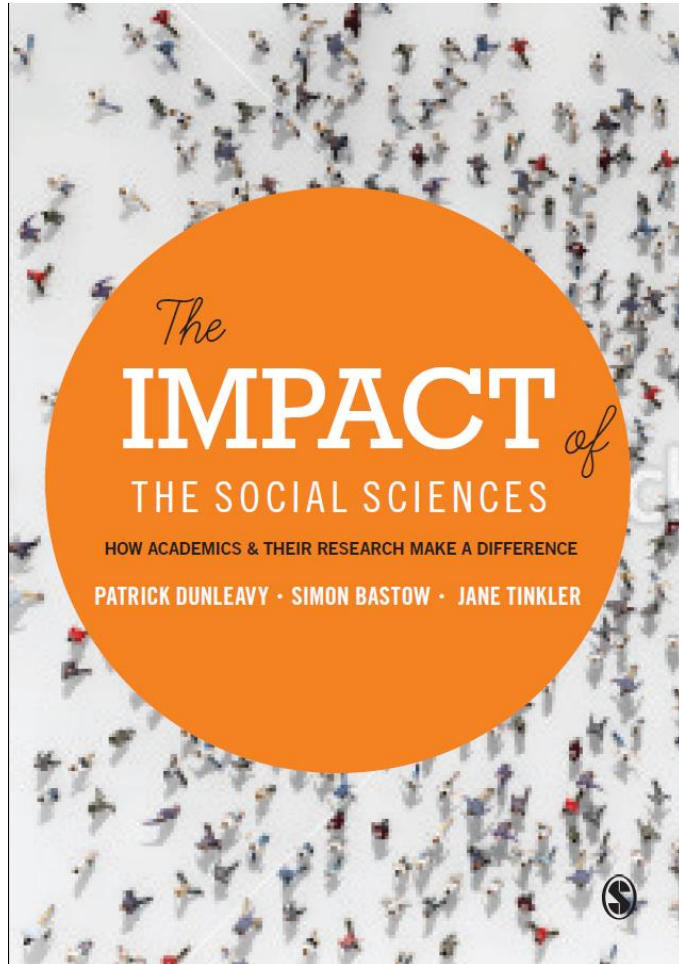
LSE Impact blog

<http://blogs.lse.ac.uk/impactofsocialsciences/>

The Impact of the Social Sciences
(Sage, 2014)

*Maximising the Impacts of your
Research: A handbook for social
scientists (2011)*

*Using Twitter in University Research,
Teaching and Impact Activities: A
guide for academics and
researchers (2011)*



Email:

impactofsocialsciences@lse.ac.uk

Twitter: @lseimpactblog

Facebook: Impact of Social Sciences