

BANFF, CANADA September 7–11, 2014

# The International School on Research Impact Assessment

## Research Impact Assessment: Overview of the Discipline

**Jonathan Grant**  
King's College London

September 8, 2014

Hosted by:



In partnership with:



# Learning outcome

- Be able to describe the rationale and value of research impact assessment



# CAN THE BOFFINS SAVE US?



Vince Cable thinks it's time to borrow. David Cameron insists there is no alternative to austerity. But have our universities found the way to secure long-term growth? Karl West reports

on to spin out their own businesses. Britain's top universities are more than capable

developed a close relationship with Jaguar Land Rover. It has about 500 of the Midlands car-maker's staff on the Warwick campus, developing products with the university. For example, the rivet and glue technique used to bond the aluminium body of the new Range Rover model was developed at WMG. "You have to have strategic relationships with companies,"

DAVID CLARK, principal fellow at WMG, believes that the best barometer of how industry views the importance of universities is the amount of cash companies are prepared to invest in research facilities. Glowing references and donations of old bits of equipment are fine, but cash is still king. By this measure, Jaguar Land Rover must be ecstatic with the work WMG has done. The car maker is partnering the university to open the £90m National Automotive Innovation Campus in March 2015. The centre is being funded by Tata Group, the Indian conglomerate that owns Jaguar Land Rover, and the Higher Education Funding Council for England (Hefce). Since announcing the venture, WMG has received inquiries from Bosch, which makes car components; the engine maker FEV; and Intel, the computing giant, about setting up their own research facilities there. "That's what growth is," says Bhattacharyya. "You have to be able to tell companies your idea and let them try it out for themselves. That is really

Bhattacharyya said. "You should be at the heart of it — you shouldn't be an outpost."

fund education for the acad 2012-13.

Of this sum, £3. teaching and £1.6bn an assessment of the an institution's research. The imp research on jobs economy accounts f of the evaluation pro

As a result, Briti demic institutio become hard-wired research papers. The aim is to have research publish esteemed academic

Publication in a h journal, coupled wit citations, is likely university a better grabbing a bigger s research budget.

Bhattacharyya ha the system to be rev wants 50% of this process to be based rather than the num tions a piece of research receives.

A clearer comm could also stop the from engineering in that has blighte industry for the past the chemists, eng rocket scientists lured into financial the promise of mu pound bonuses. But ment banks are sla and cutting bonuse Britain's workshop ring from their slum

Manufacturing in India is no longer as was and companies production from eas Domestic facto

# Advocacy – making the case for research

Medical Research:  
What's it worth?  
from medical research in the UK

**“Used as evidence as part of the preparation for the spending review and will be in the foreseeable future” – Science Minister**

**“few studies that have made a genuine attempt to objectively assess the economic returns of research” –Nature Editorial**

Health Economics Research Group (HERG)  
Brunel University  
Office of Health Economics (OHE)  
RAND Europe

For the Medical Research Council,  
the Wellcome Trust and the  
Academy of Medical Sciences  
November 2008

**BIS** | Department for Business  
Innovation & Skills

The Rt Hon David Willets MP  
Minister for Universities and Science

Our ref: 2010/0080799PODW

Mr Jonathan Grant  
President  
Rand Europe  
Westbrook Centre  
Milton Road  
Cambridge  
CB4 1YG

23 October 2010

Dear Jonathan,

Thank you for your letter of 21 September, updating me about some of your recent work relevant to science research, it provided some very helpful and interesting analysis.

The report on "Medical Research, What's it Worth?" is regarded by BIS Analysis teams as very comprehensive and rigorous. It was used as evidence as part of the preparations for the Spending Review and it will continue to be cited in the foreseeable future. Other research areas would no doubt benefit from a similar approach and analysis.

in published papers — the Nature journals are at present considering urgently necessary ones.

## Unknown quantities

It is in researchers' interests to help funding agencies quantify the economic benefits of their work.

When research agencies are pressed by politicians to quantify the economic value of scientific research, it is only natural that they reach for whatever numbers they can find and then repeat them as well-established fact. Natural, but wrong. The reality is that few of those numbers — typically, assertions that each unit of research investment will yield a certain amount of additional

research plays a substantial role in fostering innovation — by which they mean new technologies, services and business methods. They also have good evidence that innovation is essential for strong economic growth, especially when society faces constraints on key inputs such as labour, capital and materials.

Beyond that, they can't predict which disciplines of scientific research will lead to future innovation — that would require a time machine. Nor, thus far, can they trace how additional research investment will influence a society's ability to innovate.

The problem is that innovation is not a simple, linear system in which basic research begets technology, and technology begets innovation — although that has always been the easiest model for

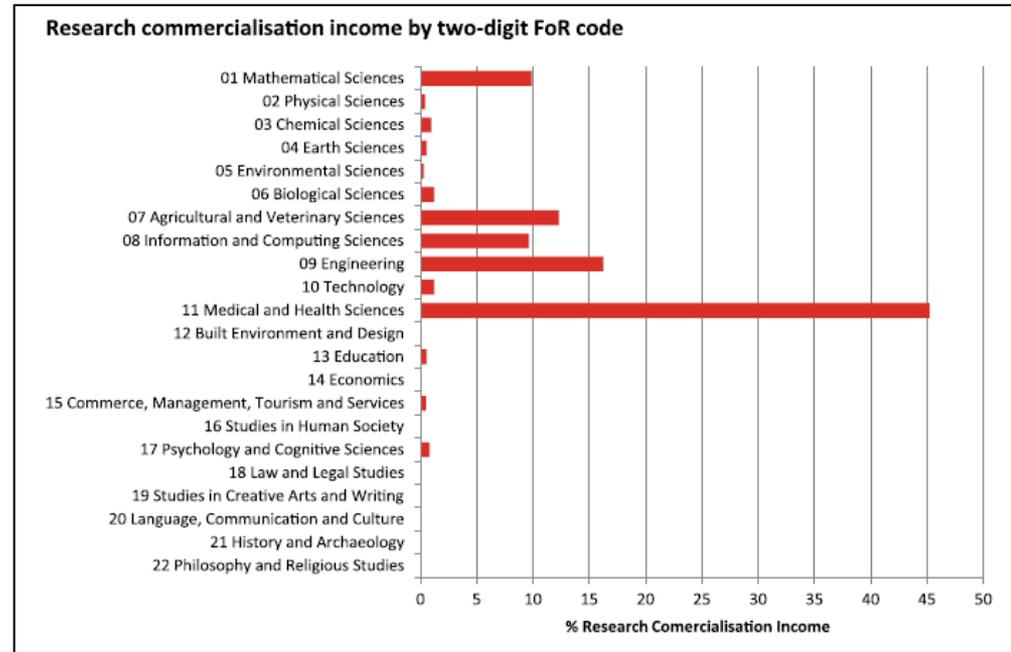


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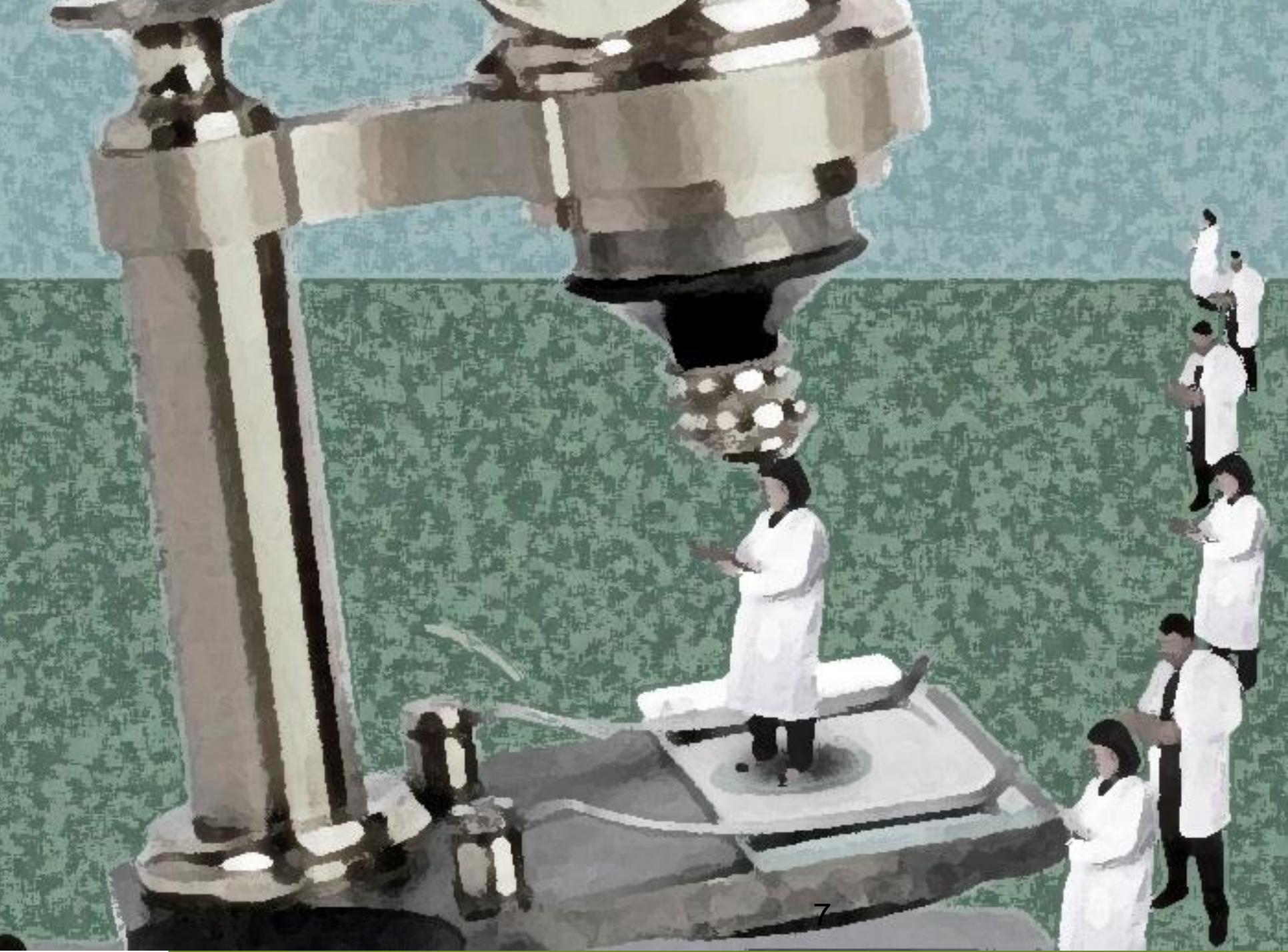


# Accountability – to taxpayers & donors



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# Analysis – understanding what works



*Researchers that show interests in other field(s) have a higher impact and those focused on a single topic have a lower wider social impact*





# Allocation – rewarding impact

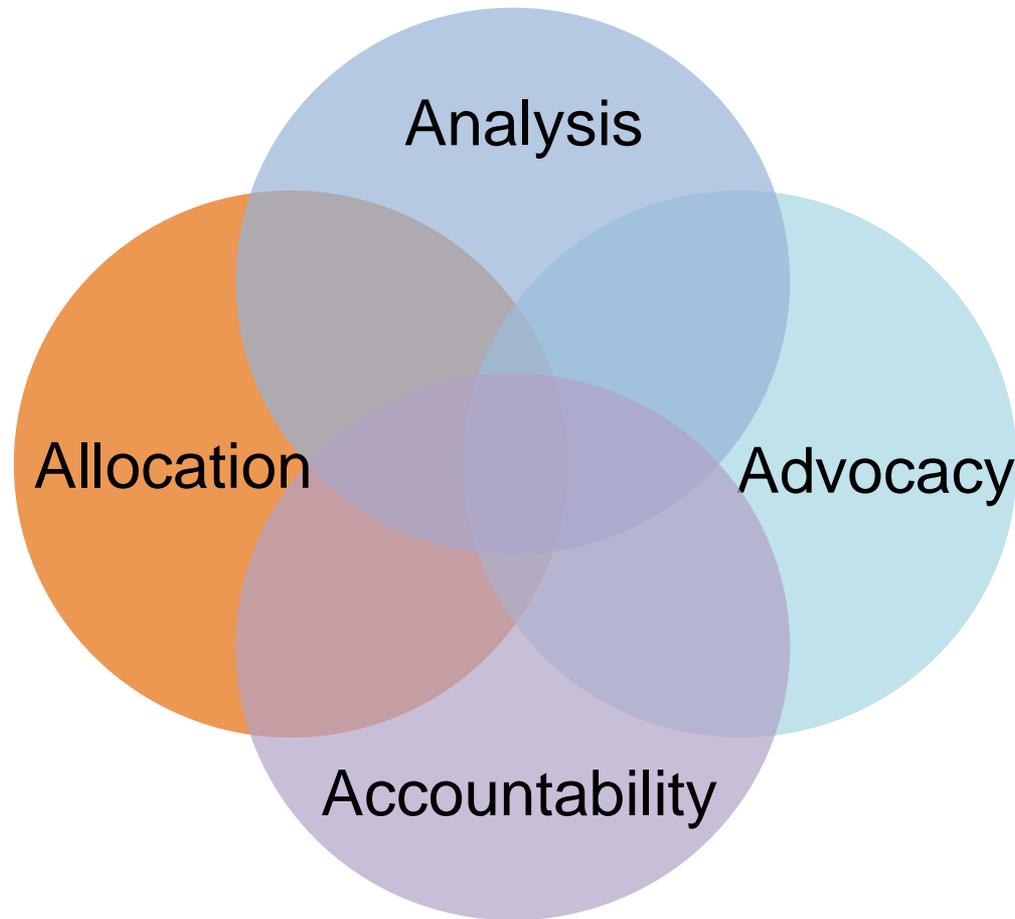


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# Be clear on the primary purpose of your research impact assessment



# Learning activity

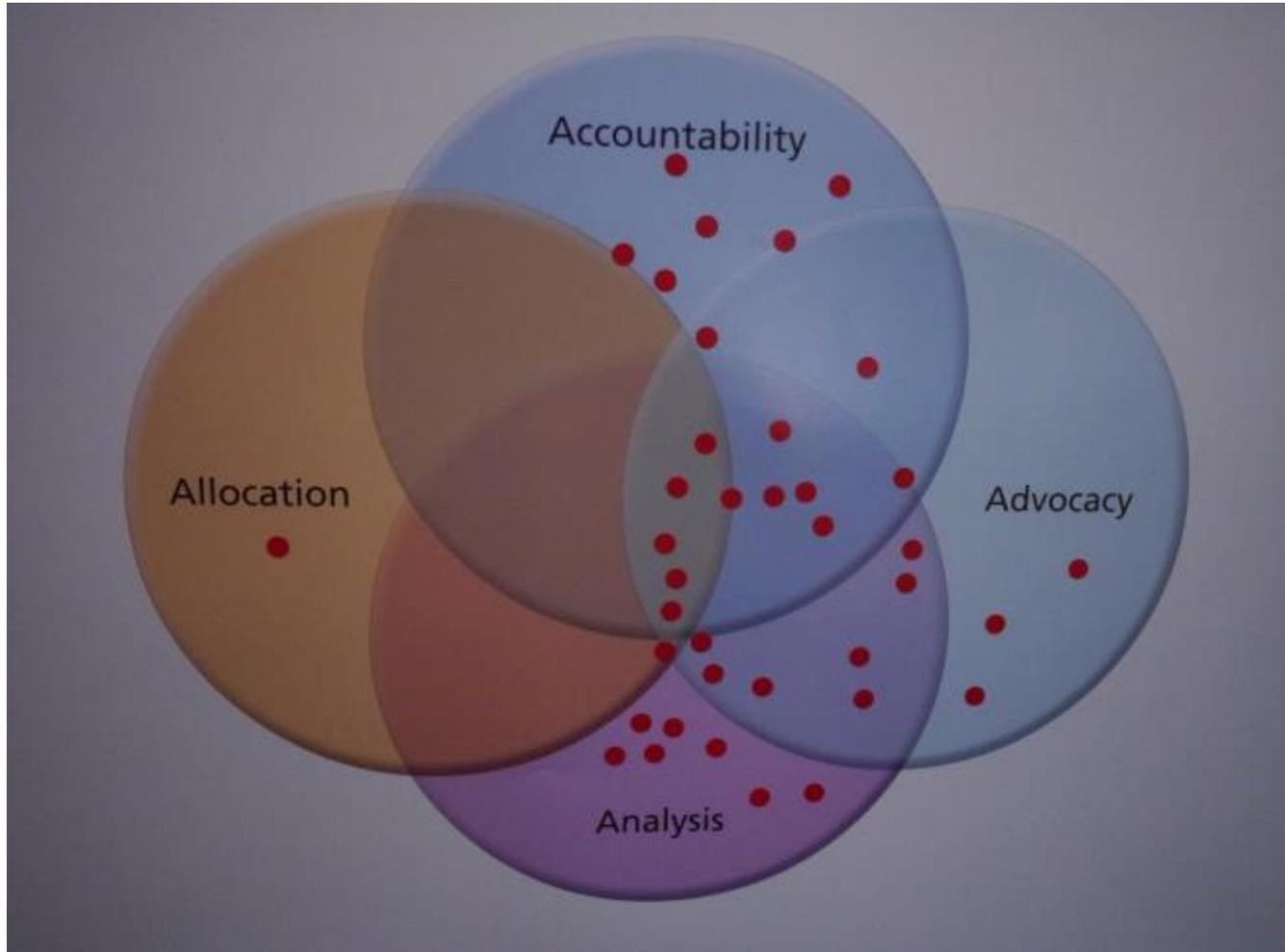


## In small groups

1. Briefly describe what RIA (or issue) you want to work on this week
  2. Think through the primary objective
  3. Think through the secondary objective
  4. Mark your programme or proposed RIA on the Venn diagram
- 15 minutes



# Barcelona 2013 ...



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# Key messages

- Know why you are assessing research impact
  - What is the objective of the research evaluation?
- Use a multi-method, multi-dimensional approach
  - Don't rely on one method (e.g., bibliometrics)
- (Research) impact assessment is not easy
  - No (research) funder has the answer



# Key messages (*cont'd*)

- Need to move from advocacy to accountability
  - Need “science of science” to understand what works
  - Need a practical evidence base for science policy
  - Need to “walk the talk”—ensure that funders of research apply same approaches to themselves as they do to the researchers they fund



# Recommended readings

Morgan Jones, M and Grant J (2013). *Making the Grade. Methodologies for Assessing and Evidencing Research Impact. 7 Essays on Impact*. DESCRIBE Project Report for Jisc. University of Exeter / Dean et al. (eds.) (Exeter, UK : University of Exeter, 2013), p. 25-43.

[[http://www.exeter.ac.uk/media/universityofexeter/research/ourresearchexcellence/describeproject/pdfs/2013\\_06\\_04\\_7\\_Essays\\_on\\_Impact\\_FINAL.pdf](http://www.exeter.ac.uk/media/universityofexeter/research/ourresearchexcellence/describeproject/pdfs/2013_06_04_7_Essays_on_Impact_FINAL.pdf)]

Buxton M, Hanney S, Morris S, Sundmacher L, Mestre-Ferrandiz J, Garau Garau M, Sussex J, Grant J, Ismail S, Nason E, Wooding S, Kapur S (2008). *Medical Research: What's It Worth?: Estimating the Economic Benefits from Medical Research in the UK*. Wellcome Trust/AMS/MRC. [<http://www.wellcome.ac.uk/About-us/Publications/Reports/Biomedical-science/WTX052113.htm>]

Glover M, Buxton M, Guthrie S, Hanney S, Pollitt A and Grant J (2014). Estimating the returns to UK publicly funded cancer-related research in terms of the net value of improved health outcomes. *BMC Medicine* 2014, 12:99 (doi:10.1186/1741-7015-12-99). [<http://www.biomedcentral.com/1741-7015/12/99>]

# Recommended readings (cont'd)

ARC (2010) *Excellence in Research for Australia: ERA 2010 Evaluation Guidelines*, Australian Research Council.

[[http://www.arc.gov.au/era/era\\_2012/outcomes\\_2012.htm](http://www.arc.gov.au/era/era_2012/outcomes_2012.htm)]

Wooding S, Pollitt A, Castle-Clarke, S, et al. and Grant, J (2013). *Mental Health Retrosight. Understanding the returns from research. (lessons from schizophrenia). Policy Report*. RAND Europe, Cambridge (RR-325-GBF).

[<http://www.rand.org/randeurope/research/projects/mental-health-retrosight.html>]

HEFCE (2011) *Assessment Framework and Guidance on Submissions*, REF 02.2011, Higher Education Funding Council for England, Scottish Funding Council, Higher Education Funding Council for Wales and Department for Employment and Learning, Northern Ireland. [<http://www.ref.ac.uk/>]



# Thank you!

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