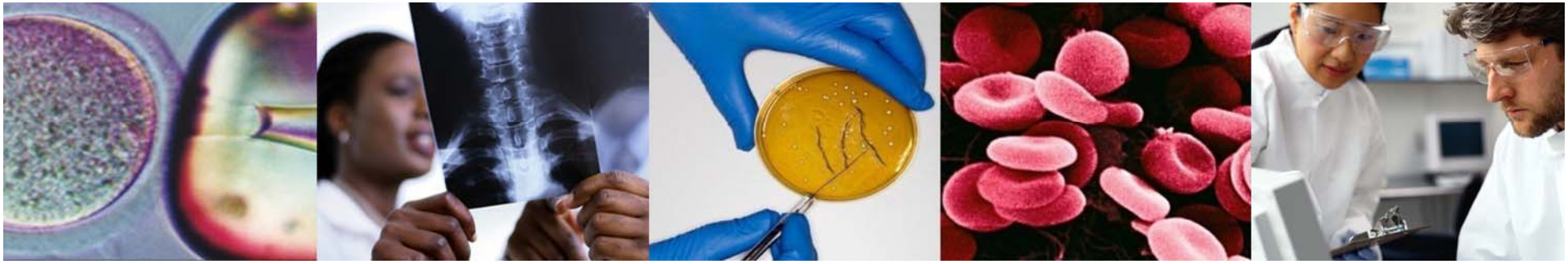


Research Evaluation in the UK

Ian Viney

Medical Research Council

Approaches used to understand and influence research impact

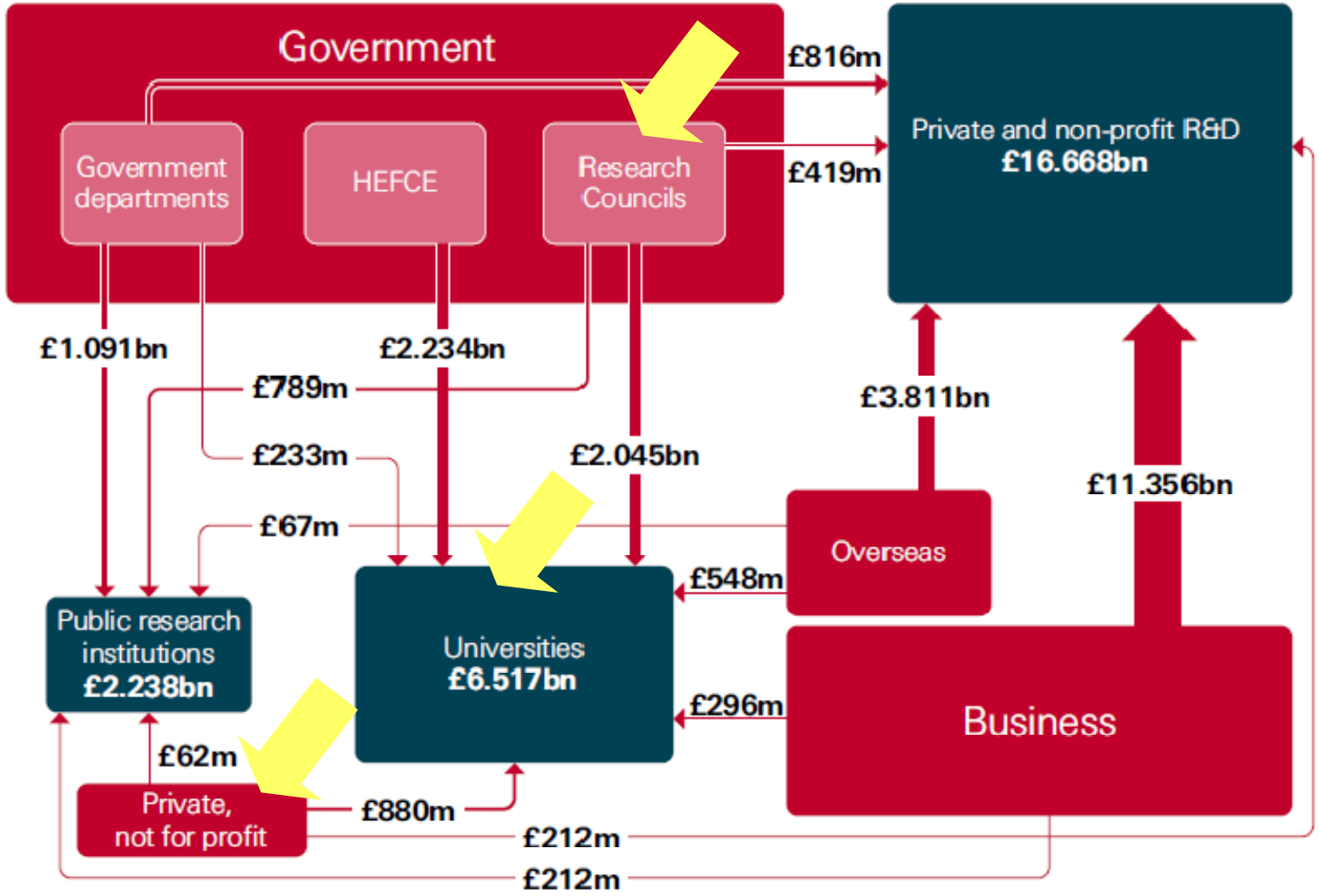
1. Collect comprehensive evidence of the progress, productivity and quality of research output

2. Support research on the “science of science”

3. Encourage researchers to think about, and act to maximise, their “pathways to impact”

4. Introduce the assessment of impact into the allocation of funds for UK Universities

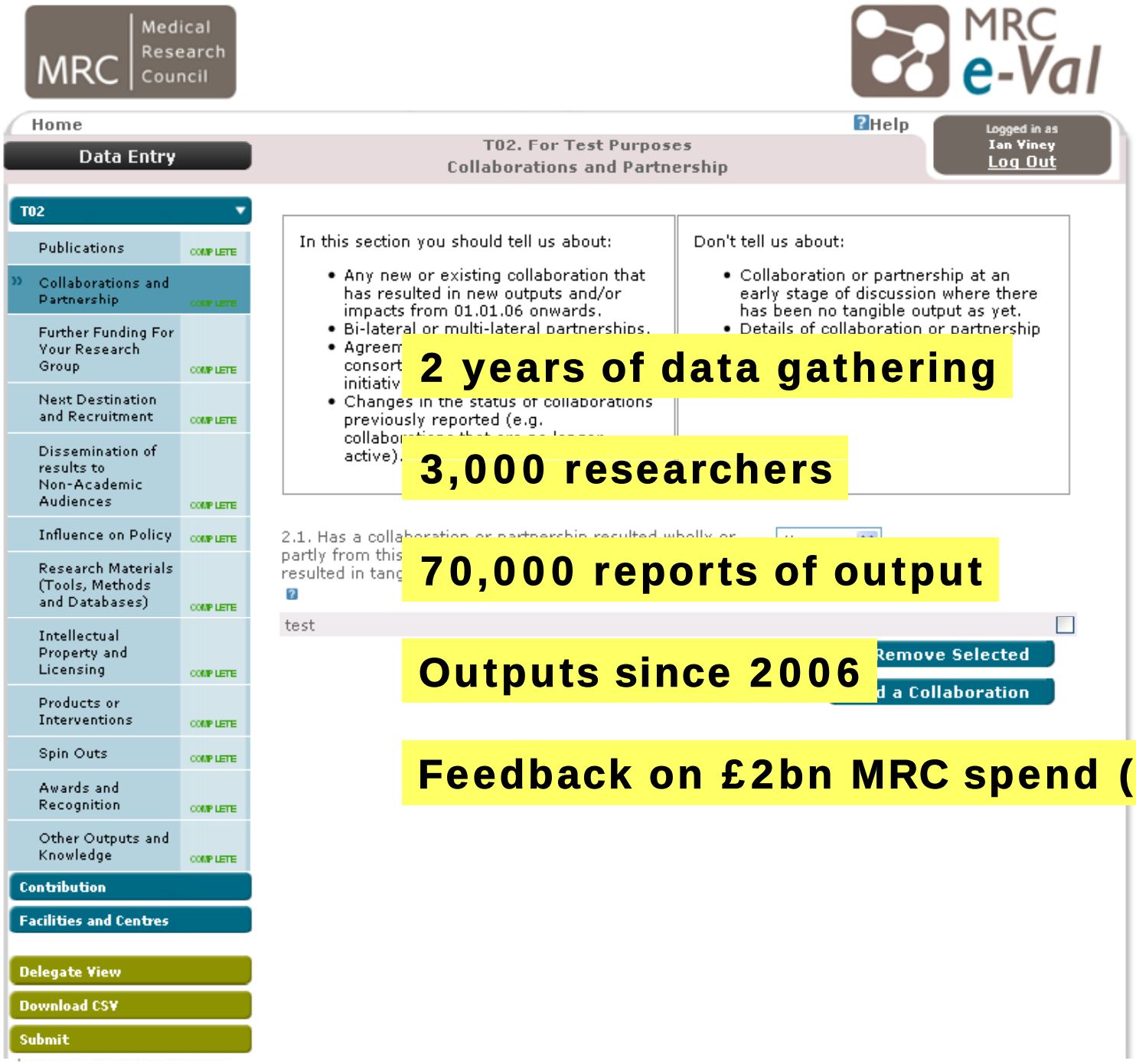
Funding flows in UK science



Taken from "The Scientific Century" (Royal Society 2010)

1. Gathering evidence of progress/productivity (MRC e-Val)

- MRC e-Val is an online system to gather *evidenced* outputs/outcomes/impacts arising from MRC research
  - better communicate the benefits of MRC funding
  - support strategy development/evaluation
  - understand the linkages between output and the economic, societal and academic impact of MRC research
- "set case studies in context" of the productivity and quality of all MRC output
- Codify outputs other than papers and patents (e.g. influence on policy, development of products)
- Prospectively track progress over time


MRC Medical Research Council
MRC e-Val
Home
Help
Logged in as Ian Viney Log Out
Data Entry
T02. For Test Purposes
Collaborations and Partnership
T02
Publications COMPLETE
Collaborations and Partnership COMPLETE
Further Funding For Your Research Group COMPLETE
Next Destination and Recruitment COMPLETE
Dissemination of results to Non-Academic Audiences COMPLETE
Influence on Policy COMPLETE
Research Materials (Tools, Methods and Databases) COMPLETE
Intellectual Property and Licensing COMPLETE
Products or Interventions COMPLETE
Spin Outs COMPLETE
Awards and Recognition COMPLETE
Other Outputs and Knowledge COMPLETE
Contribution
Facilities and Centres
Delegate View
Download CSV
Submit
In this section you should tell us about:
Any new or existing collaboration that has resulted in new outputs and/or impacts from 01.01.06 onwards.
Bi-lateral or multi-lateral partnerships.
Agreem
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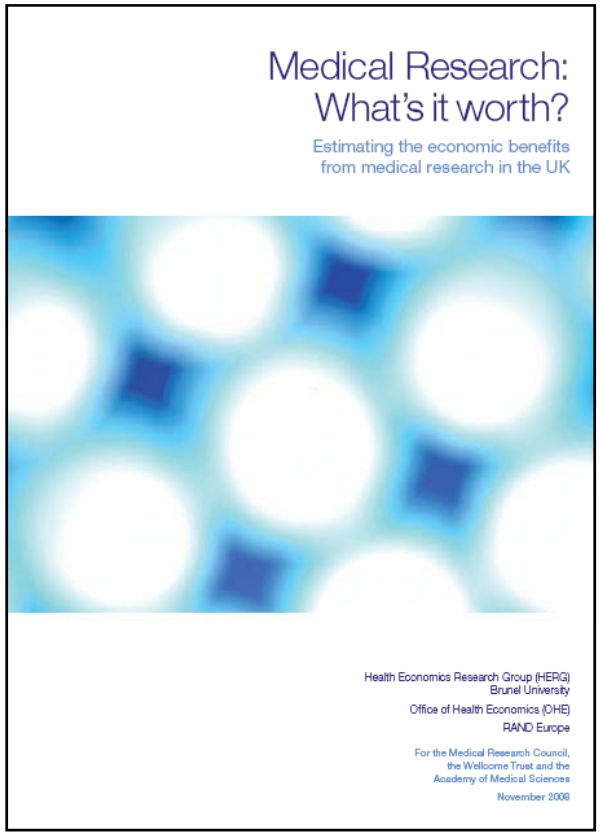
Changes in the status of collaborations previously reported (e.g.
collabo
active).
Don't tell us about:
Collaboration or partnership at an early stage of discussion where there has been no tangible output as yet.
Details of collaboration or partnership
2.1. Has a collaboration or partnership resulted wholly or
partly from this
resulted in tang
test
Remove Selected
d a Collaboration
2 years of data gathering
3,000 researchers
70,000 reports of output
Outputs since 2006
Feedback on £2bn MRC spend (92%)

MRC e-Val 2010 results

- Details of 5,000 active collaborations involving 6,000 partners (20% of MRC researchers have had a productive interaction with the private sector since 2006)
- 66 spin out companies with an evidenced link to MRC research (35 formed since 2006)
- Over 130 citations in policy documents, including 30 citations in NICE guidelines since 2006
- 360 new products and interventions in development, around 40 launched onto the market since 2006, including 10 new drugs
- £300m of inward investment to UK research and development from overseas and private sector research funding between 2006 and 2010 (around 30% of leveraged funding)
- 200 published patents since 2006 (roughly 30% are licensed)
- 37,500 publications reported (30,000 papers between 2006-2010)

2. Medical Research: What's it worth? (2008)



- Consistent time series for medical research funding in CVD and MH from 1975-1992
- Clear conceptual framework relating to GDP gain from "spillovers"
- Estimation from literature of the magnitude of this GDP return
- Development and application to CVD and MH, of a 'bottom-up' approach to estimate health gain in terms of QALYs
- Analysis of UK guidelines (5 CVD and 12 MH) to provide indicators of lags and proportion of benefits attributable to UK
- Suggestions for developing research agenda
- **Strong quantitative argument for investment in medical research**

3. RCUK "Pathways to Impact"

7 UK Research Councils together allocate £3bn each year to research

Key principle - **Excellent research** leads to economic, academic and societal impact

UK Research Councils seek to:

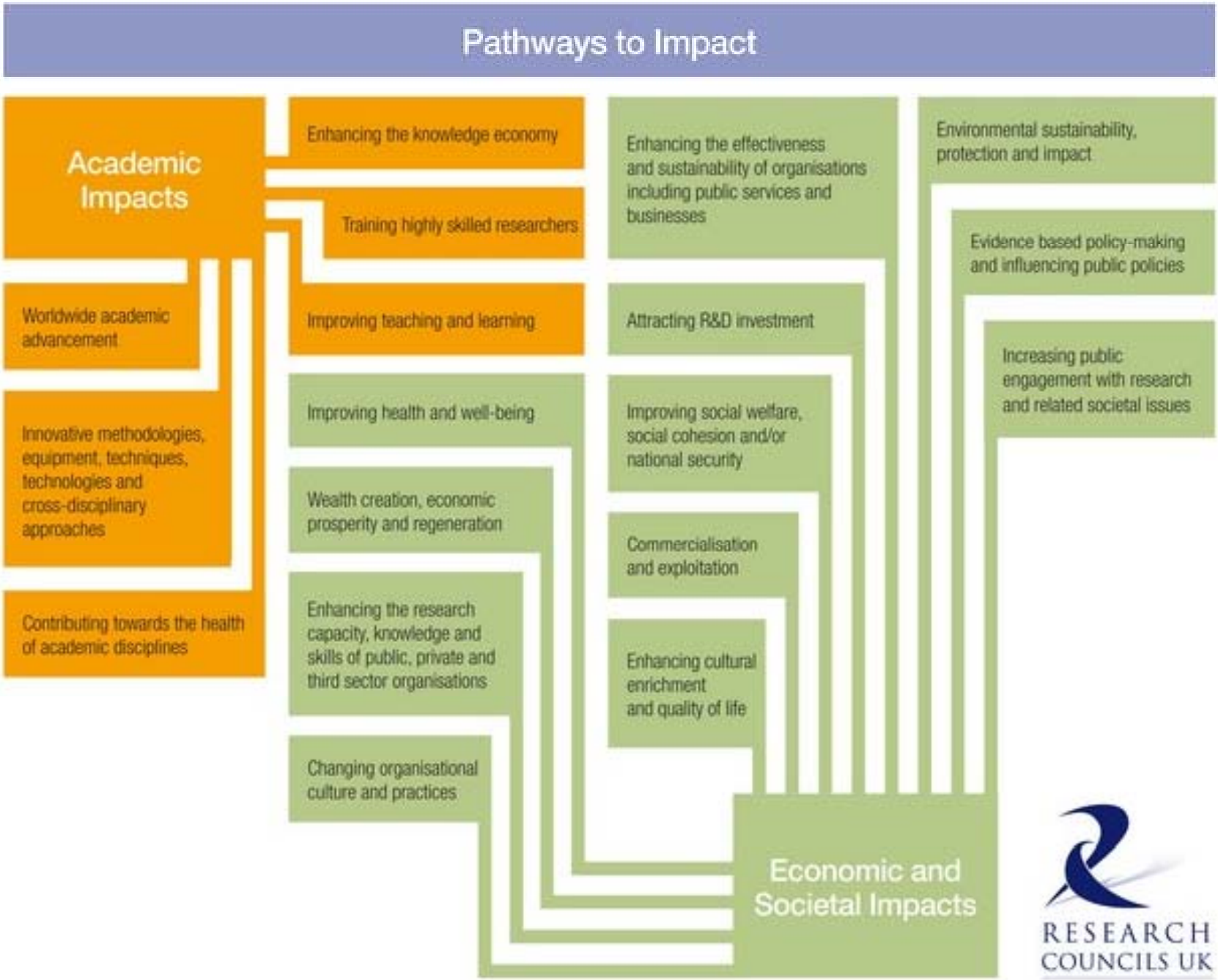
- Foster global economic performance, and specifically the economic competitiveness of the UK
- Enhance the science base, providing skilled people, technologies/methodologies and new knowledge
- Increase the effectiveness of public services and policy
- Enhance quality of life, health and creative output

RCUK is keen to assess efforts to maximise impact, beginning with the peer review process – "Pathways to Impact"

Applications should explore ways to enhance potential impact not predict impact

http://impacts.rcuk.ac.uk/default.htm

RESEARCH COUNCILS UK


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
RESEARCH COUNCILS UK

4. HEFCE Research Excellence Framework (REF)

- Higher Education Funding Councils in the UK allocate around £2 billion of support for research to Universities each year
- The REF will assess research outputs, impacts and the research environment at each UK University
- Assessment is at the level of "substantive bodies of research in coherent discipline groups" (Units of Assessment "UOA") there are roughly 30 UOA
- HEFCE ran an impact assessment pilot involving 29 Universities (each submitting case studies for 2 UOAs) across 5 UOAs in total (results published in 2010)
- Impacts had to be evidenced as occurring in the assessment period 2003-2008, resulting from excellent research supported from 1993 (up to 15years ago)
- Impact assessment using expert panels was considered workable across all disciplines, and will contribute 20% of the overall REF assessment

Benefits of research

Clinical Medicine

- Impacts on patient outcomes, health policy and practice, medical technology and the pharmaceutical industry

Physics

- Impacts on high-tech products and services, public engagement with science and defence and energy policy

Earth Systems & environmental sciences

- Impacts on environmental policy, conservation, managing the environmental, utilities, risks and hazards, exploration of resources, public health

Social work & social policy

- Impacts on social policy, public services, third sector, practitioners and public debate

English language & literature

- Impacts on creative industries, cultural enrichment, civil society, English as a global product, policy development

Changes in the UK – Developing "The Impact Agenda"

- In the 2010 Comprehensive Spending Review, HM Treasury stated that MRC's budget would be protected in real terms (providing for an inflationary increase), and the science budget overall given flat cash. The Science Minister noted "evidence is now coming in of economic returns to science. The empirical research has been very helpful."
- Other research funding agencies in the UK are implementing processes to gather output data similar to MRC e-Val, including other Research Councils and medical research charities.
- Discussions are underway to harmonise and rationalise data collection approaches across multiple funding agencies, and provide more of a "UK wide" view of research output
- The importance of capturing and describing, understanding, and assessing impact, with a view to **maximising** it, is now more accepted in the UK
- Plans are underway to increase the investment in "science of science" work
- Government focus is on economic growth

What has worked? What is transferable?

- Very early stages of developing our evaluative capability, but some success in demonstrating return on investment
- Funding agency perspective, follow projects and programmes, aggregate results
- Survey researchers for “evidenced” outputs that cannot be gathered from other sources, replace end of grant reports with an ongoing dialogue
- Too early to tell whether “pathways to impact” has been successful, but this has begun the debate about what might lead to impact and has gained acceptance
- REF will be used to allocate funds to Universities in 2014, support has been won across disciplines for impact assessment to play a significant part