

Research Evaluation in the UK Medical Research Council: Bibliometrics and Beyond

Research Evaluation Seminar

Library of the Czech Academy of Sciences
and Thomson Reuters Co-Hosted Event

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Medical Research Council



Established 1913

- The MRC's mission, as set out in its Royal Charter is to
- Encourage and support research to improve human health.
- Produce skilled researchers.
- Advance and disseminate knowledge and technology to improve the quality of life and economic competitiveness of the UK.
- Promote dialogue with the public about medical research.

MRC Evaluation



- Traditionally MRC gathered information on the outcomes generated by MRC funding via Final Reports
- Large documents containing write up of project
- Reports completed immediately post funding but some outputs/impacts take time to become realised
- Asked for “Top 5 Publications” at end point of funding
- Detailed reports in free text produced by PI but systematic analysis problematic – can use text mining techniques but even then “key” information is often missing

MRC e-Val -> Researchfish



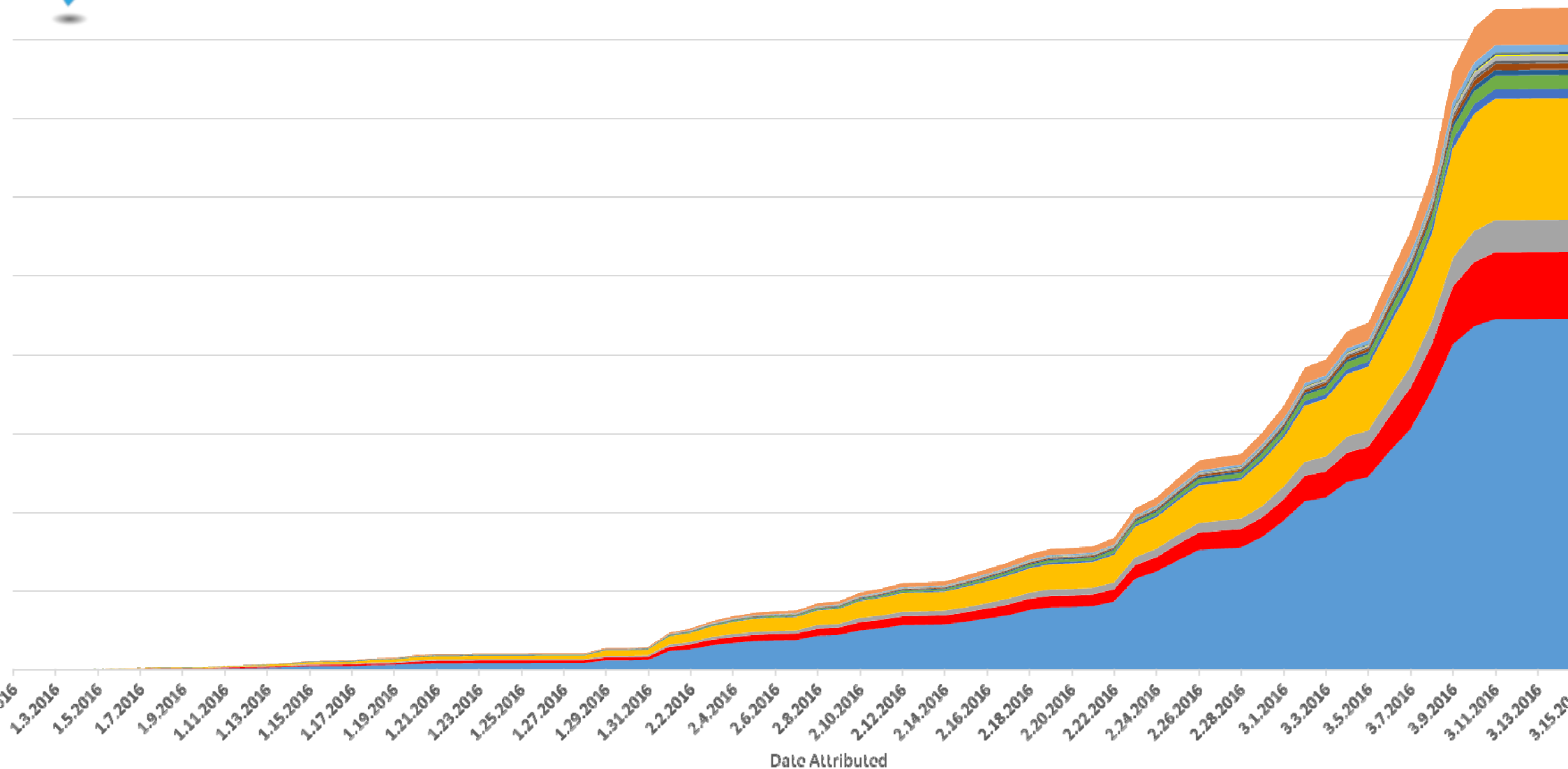
- Online survey to gather outputs/outcomes/impacts arising from MRC research.
- Built a robust dataset which allowed progress/productivity and quality of MRC research to be analysed, and this evidence to be used in decision making.
- Survey based. Repeated measures - annually during and after award.
- Structured data – beyond well defined outputs (publications, patents) operationalize policy influence, dissemination activities, collaborations
- Used external ids wherever possible to harvest metadata
- Used internal ids to enable effective analysis across awards e.g. collaborating/funding organisations

Researchfish

- MRC licensed e-Val approach to Researchfish Ltd.
- Built a single portal for researchers to record the output from their research across multiple funders (<https://Researchfish.com>)
- Question set broadened to cover other disciplines – Arts, Humanities, Social Sciences, Sciences
- The approach accommodates a core question set with some additional funder specific/grant/scheme questions
- 100+ organizations have now subscribed to Researchfish with awards having a combined value of roughly £40bn in the system.
- 63,000+ researchers, 100,000+ awards, 1.7+ million outputs
- PI self authentication allows for identification of same researcher across different funder/university systems

Common Outcomes

Publications	Intellectual Property & Licensing
Collaborations & Partnerships	Medical Products, Interventions & Clinical Trials
Further Funding	Artistic & Creative Products
Next Destination & Skills	Software & Technical Products
Engagement Activities	Spin Outs
Influence on Policy, Practice, Patients & the Public	Awards & Recognition
Research Tools & Methods	Other Outputs
Research Databases & Models	Use of Facilities & Resources



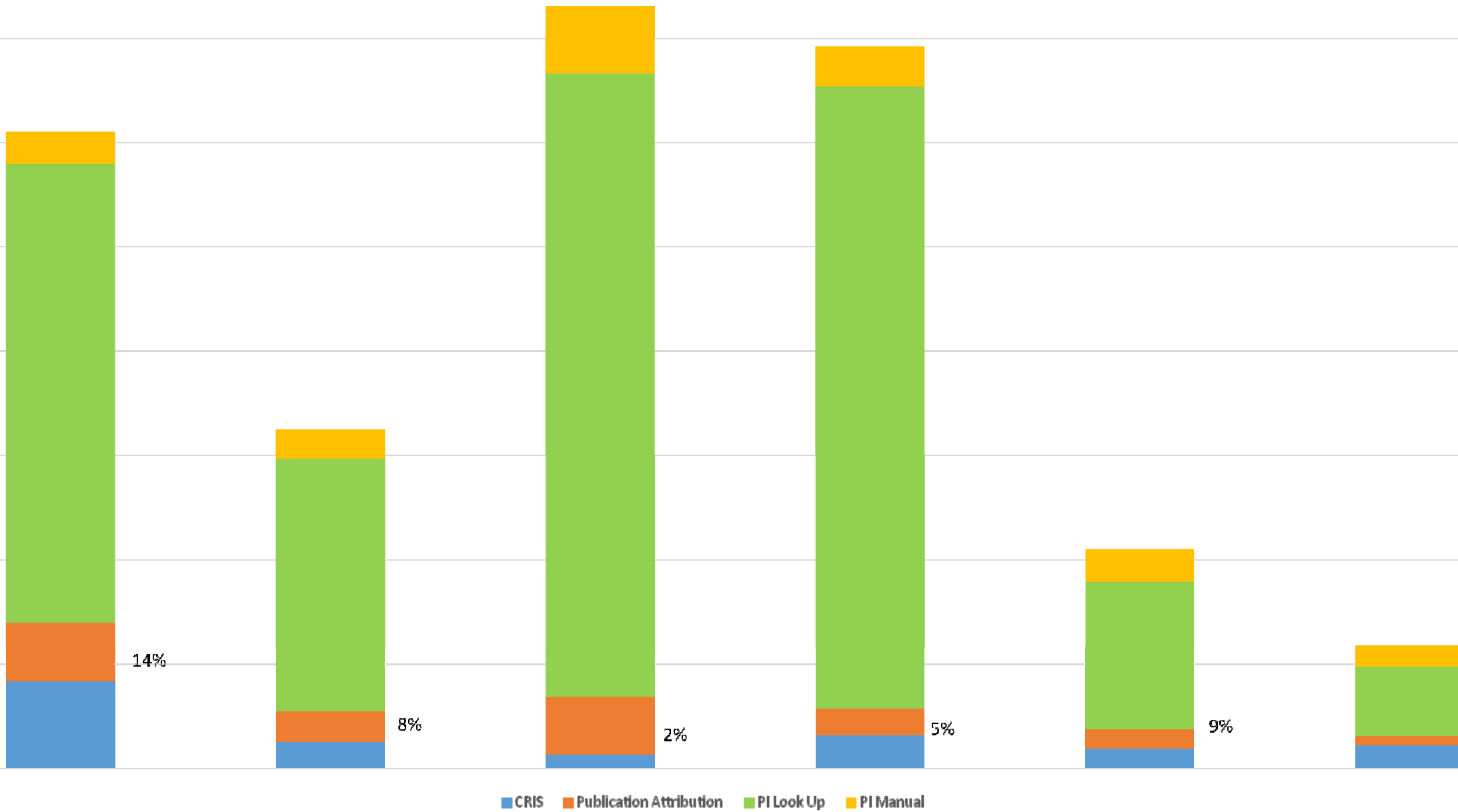
- Publications
- Collaborators
- Further Funding
- Engagement
- Policy Influence
- Next Destinations
- Research Materials - Tools & Methods
- Research Materials - Databases & Models
- Software & Technical
- Creative and Artistic
- Medical Products
- IP
- Spin Outs
- Facilities
- Recognition

Publications Reporting



- Very big difference in PI Reported publication attributions when compared to publication attribution metadata.
- Only 30% of self reported publications included MRC as a funder in the metadata.
- Only 11% of self reported publications included MRC grant reference and many of these were invalid.
- Investigated by checking publications, dates, interviewing researchers
 - Missing attributions can be result of lack of awareness, corresponding author information, manuscript handling, intramural addresses.
 - Similar results for other funders over time

2015-16 Publications by RO



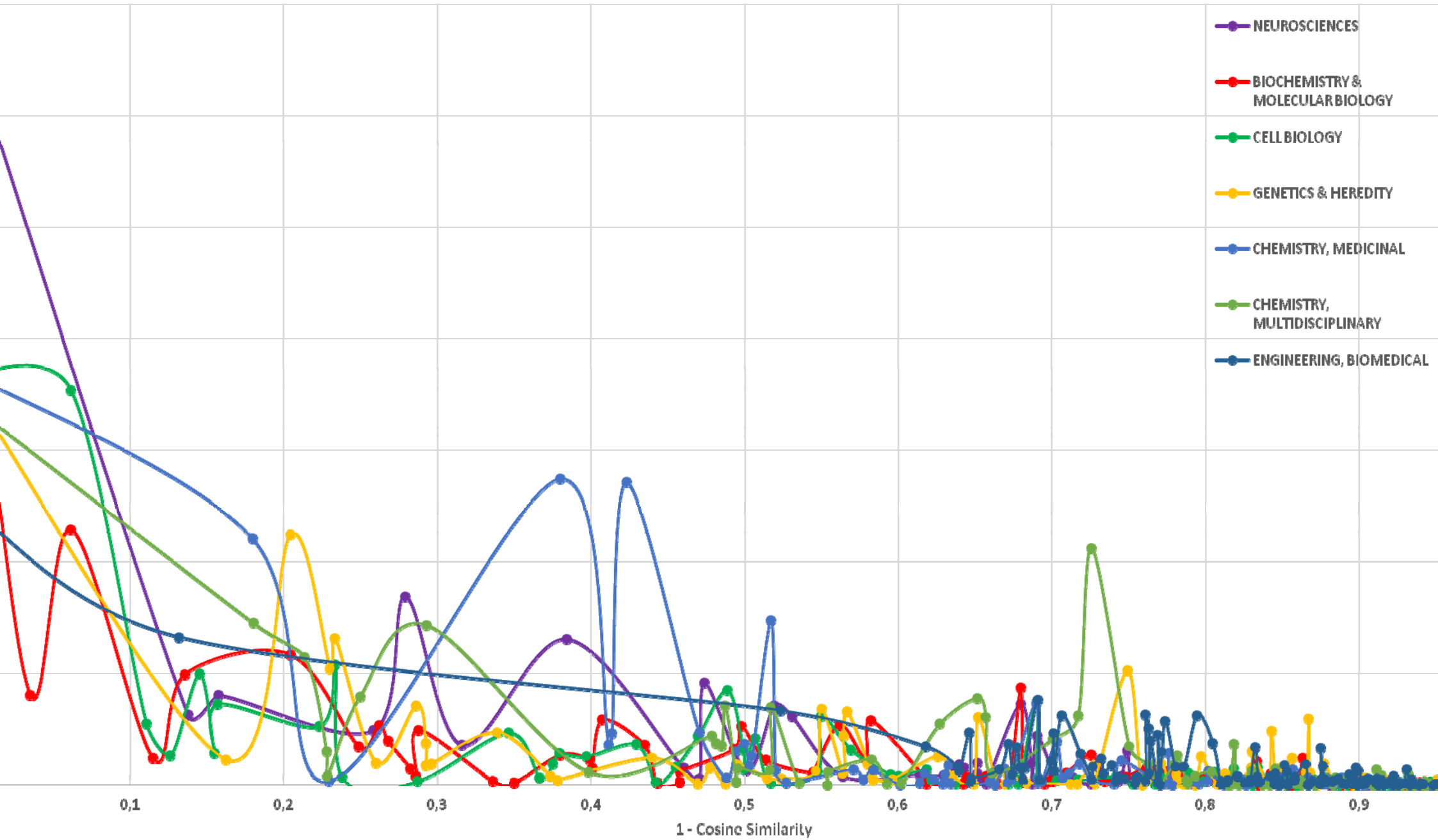
Bibliometric Information



- License bibliometric information from TR
- In-house reporting using Normalised Citation Impact scores for articles
- Impact Profiles, other distributional analysis
- Used as one component of broader evaluation of e.g. Institute Reviews
- Important to use appropriately with caveats and explanation
- Use of related data:
 - Bibliographic – Sector Coding, Network Analysis
 - Interdisciplinary Diffusion



Interdisciplinarity Diffusion

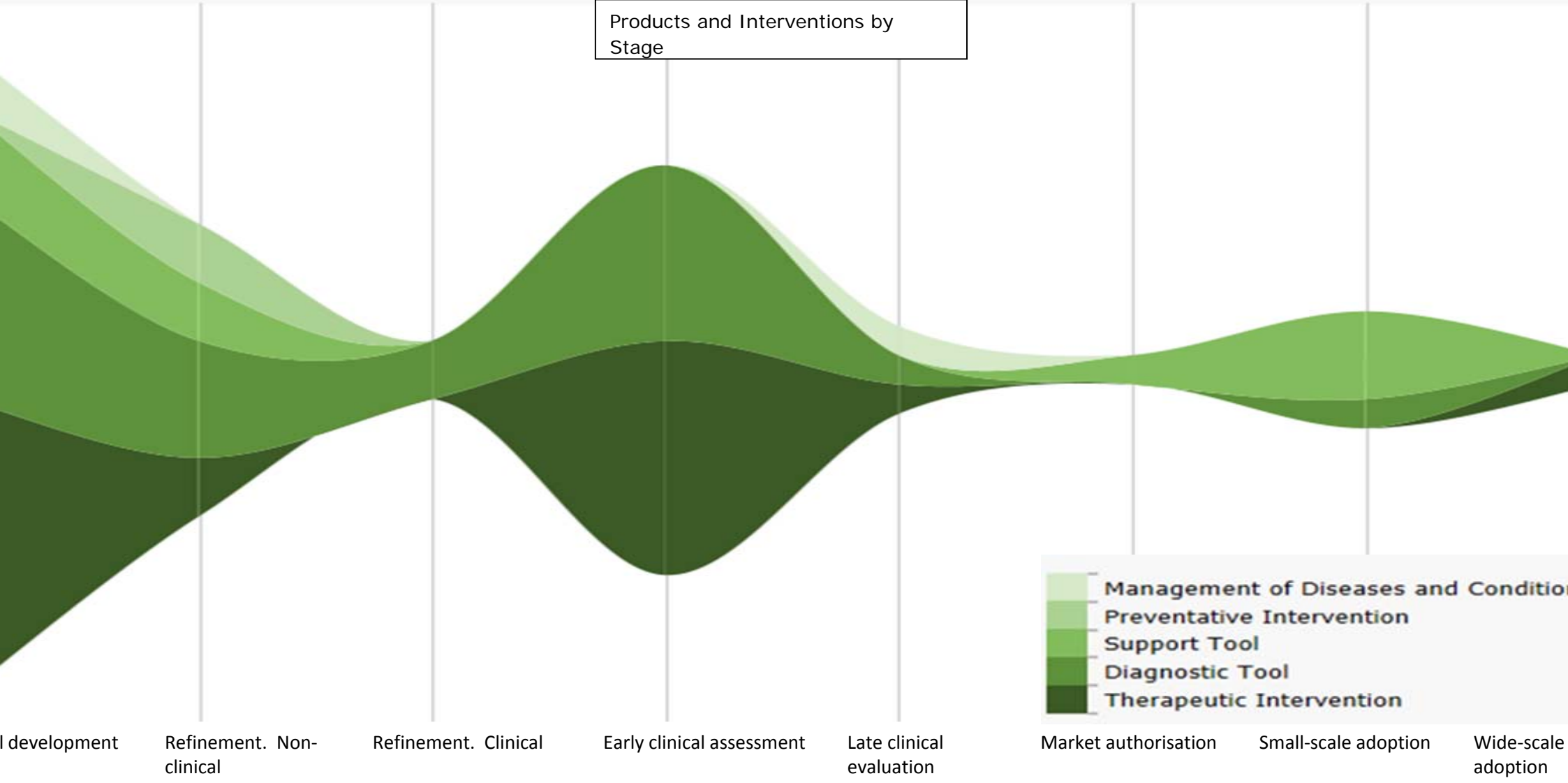


Wider Reporting



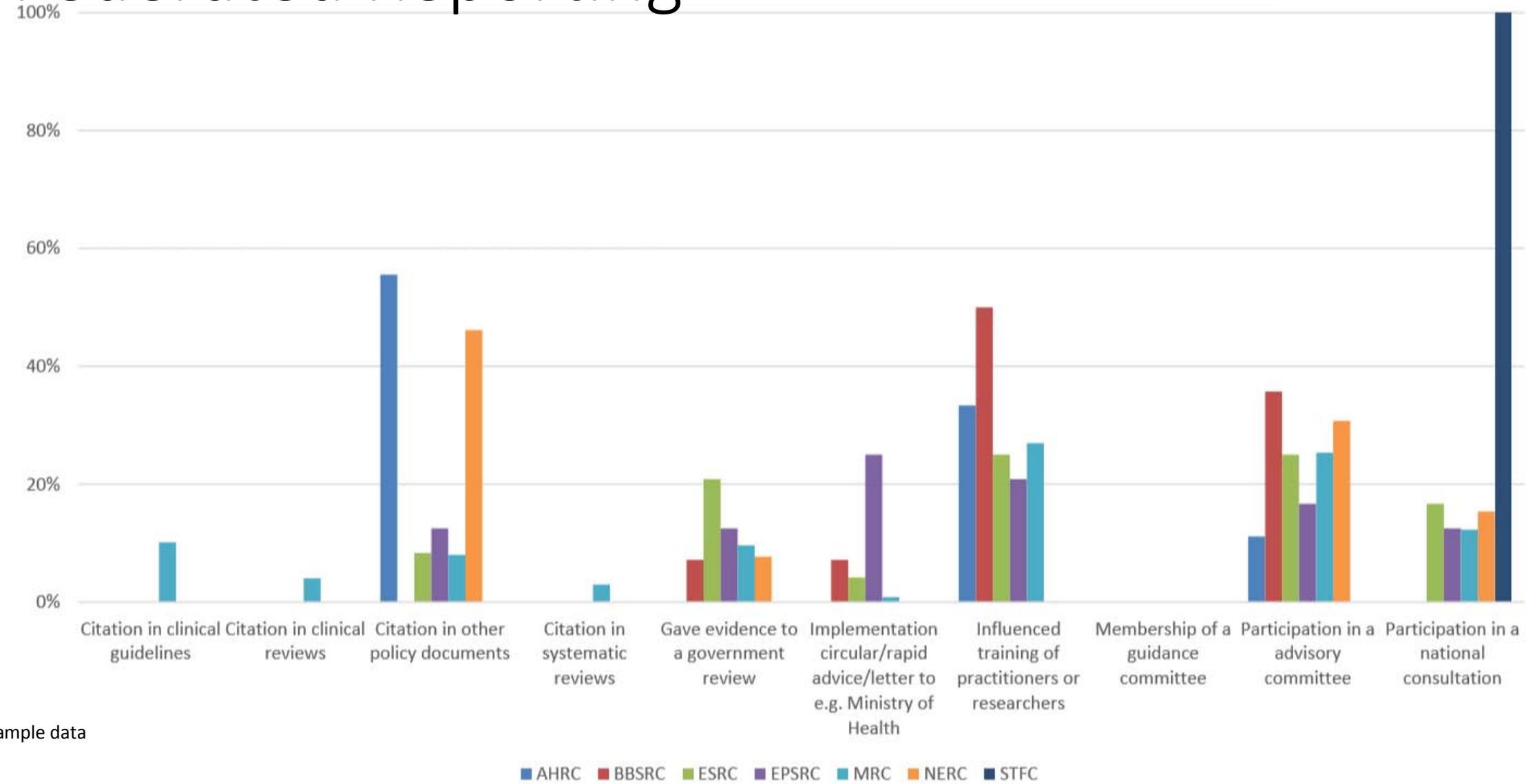
- Support programme evaluation e.g. [Standard Report](#)
- [Public reports](#) e.g. [Policy and Engagement](#)
- Publish data on [Gateway to Research](#)

Products and Interventions by Stage

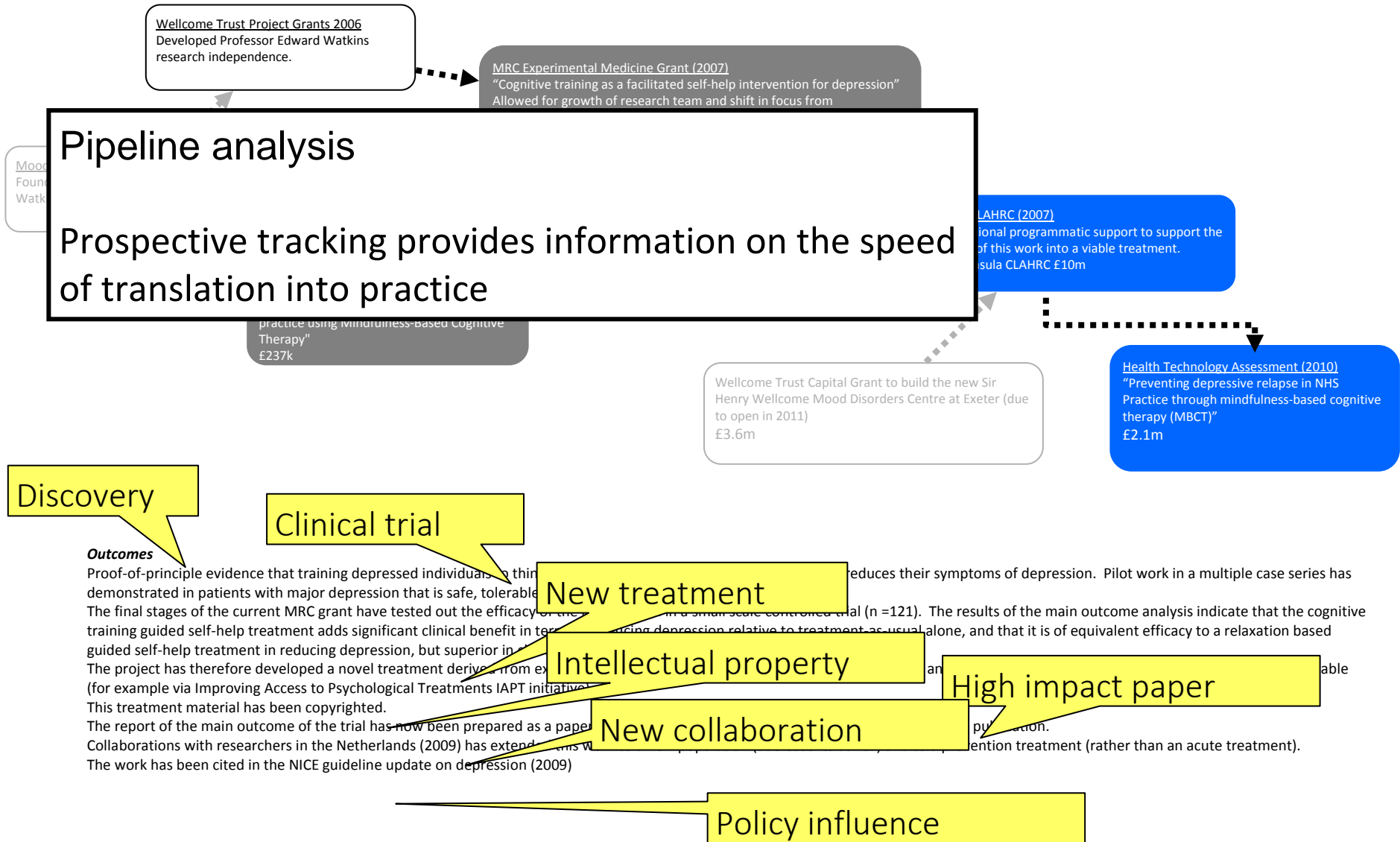


- Management of Diseases and Conditions
- Preventative Intervention
- Support Tool
- Diagnostic Tool
- Therapeutic Intervention

Federated Reporting



Overall, the total cost of health services for depression in England in 2007 was estimated to be £1.7 billion whilst lost employment increased this total to £7.5 billion. By 2020 it is expected that depression will be the second leading cause of disability in the world, and by 2026 the condition is projected to cost the UK health service £3 billion (£12.2 billion cost to the UK with lost employment).



Questions?

- MRC Email – evaluation@headoffice.mrc.ac.uk
- MRC Website – <http://www.mrc.ac.uk/research/achievements/evaluation-programme/>
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- Researchfish Website – <https://www.researchfish.com/>