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# TECHNICAL REPORT

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## A historical reflection on research evaluation studies, their recurrent themes and challenges

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Prepared for Project Retrosight

The research described in this report was prepared for the Project Retrosight.

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# Summary

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This report critically examines studies of how scientific research drives innovation which is then translated into socio-economic benefits. It focuses on research evaluation insights that are relevant not only to the academic community, but also to policymakers and evaluation practitioners – and particularly to biomedical and health research funders. First, it provides a predominantly descriptive *historical overview of some landmark studies* in the research evaluation field, from the late 1950s until the present day, and highlights some of their key contributions. Then, it reflects on the historical overview analytically, in order to discuss some of the *methodological developments* and *recurrent themes* in research evaluation studies. The report concludes by discussing the *enduring challenges* in research evaluation studies and their implications.

We emphasise that this report does not address *all* of the key studies in the research evaluation field. The evaluation literature today is so extensive that a selective approach is necessary to focus on those studies that we feel provide the most valuable insights in the context of *biomedical and health research* evaluation. However, we do go back in history to revisit some early landmark studies outside of the biomedical or health research sectors, which had a particularly strong influence on informing evaluation thinking, policy and practice.

We are interested in the evaluation of research projects and programmes occurring in universities, other public or private research settings or clinical environments. As Georghiou and Roessner (2000) emphasise: all evaluations are social processes, occurring in specific settings and conditions and addressing diverse objectives and stakeholder needs. The level of aggregation and the objectives being evaluated will influence the choice of an evaluation approach. A detailed examination of the evaluation of large-scale European collaborative research and development initiatives or national and European level innovation systems is beyond the scope of this report. Neither do we address the evaluation of programmes specifically aiming to encourage technology adoption and diffusion. This report also explicitly focuses on the evaluation of research outputs and impacts, rather than the evaluation of policy effectiveness.

Lastly, this report presents a historical context for the Project Retrosight. Retrosight is a multinational study investigating diverse impacts from cardiovascular disease research in three countries (Australia, Britain and Canada) over the last 20 to 25 years and the pathways through which the impacts are produced. The project is being led by RAND Europe and the Health Economics Research Group (HERG) at Brunel University.