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# Where are we now? Three generations of thinking about knowledge transfer

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# Outline

- Models of the relationship between research policy and practice
- Rationales for assessing impact
- What can we learn from the literature?
- 10 research impact assessment case studies

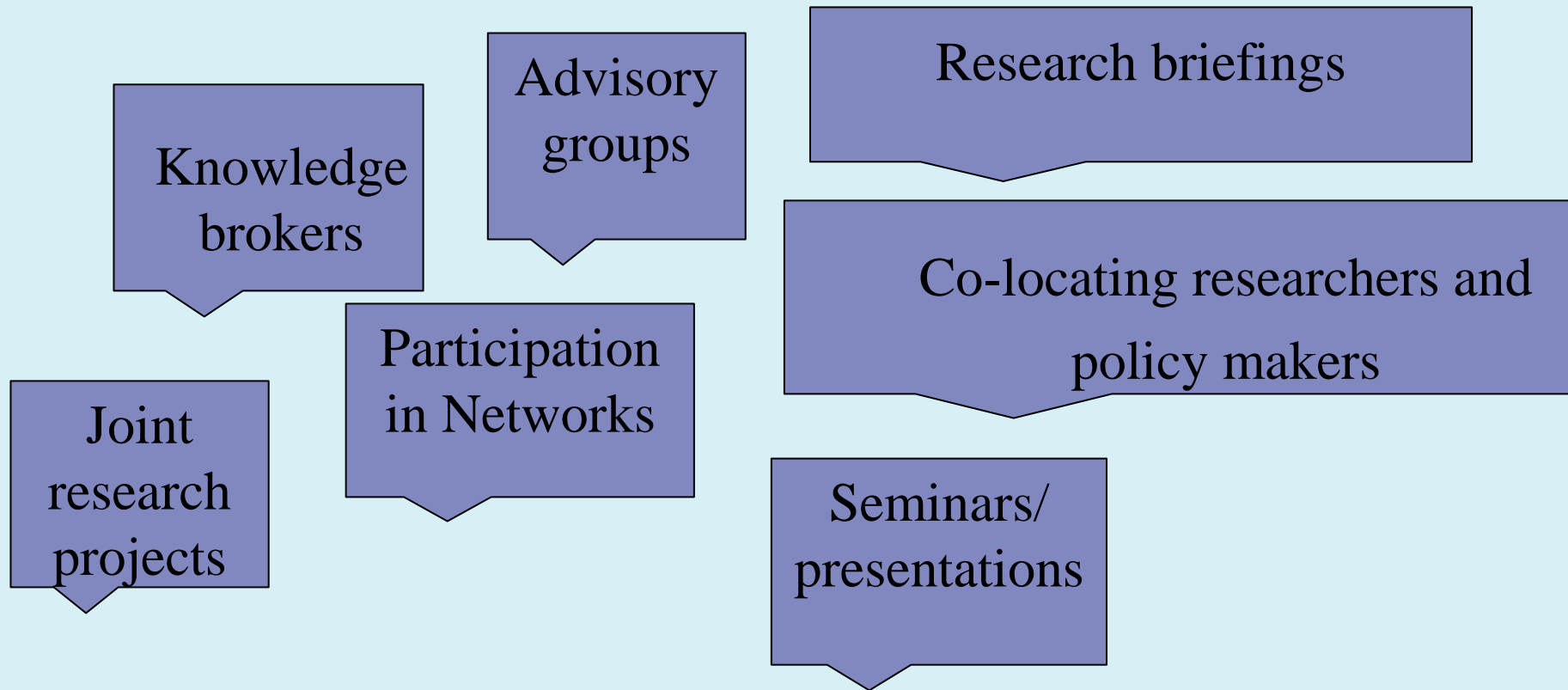
# Knowledge Transfer models

Linear model  
– relay race

Relationship model –  
two communities

Systems model  
– co-production

# Some knowledge transfer activities



# Models

Research briefings

Linear model  
– relay race

Advisory  
groups

Relationship model  
– two communities

Systems model  
– co-production

Joint  
research  
projects

# Is knowledge transfer working?

Practice change from knowledge transfer activities is only about 8-15%

Grimshaw et al 2001; Crowley et al 2004

# Effective knowledge transfer

depends on

- the nature of the research and its utility
- the personal characteristics of both researchers and users
- the links between researchers and users
- the context for the application of the research

See Nutley, Walter and Davies, 2007, pp 81-83,

See also Overseas Development Institute



<sup>1</sup>Commissioner Janez Potočnik, Assessing Europe’s University-Based Research, 2010

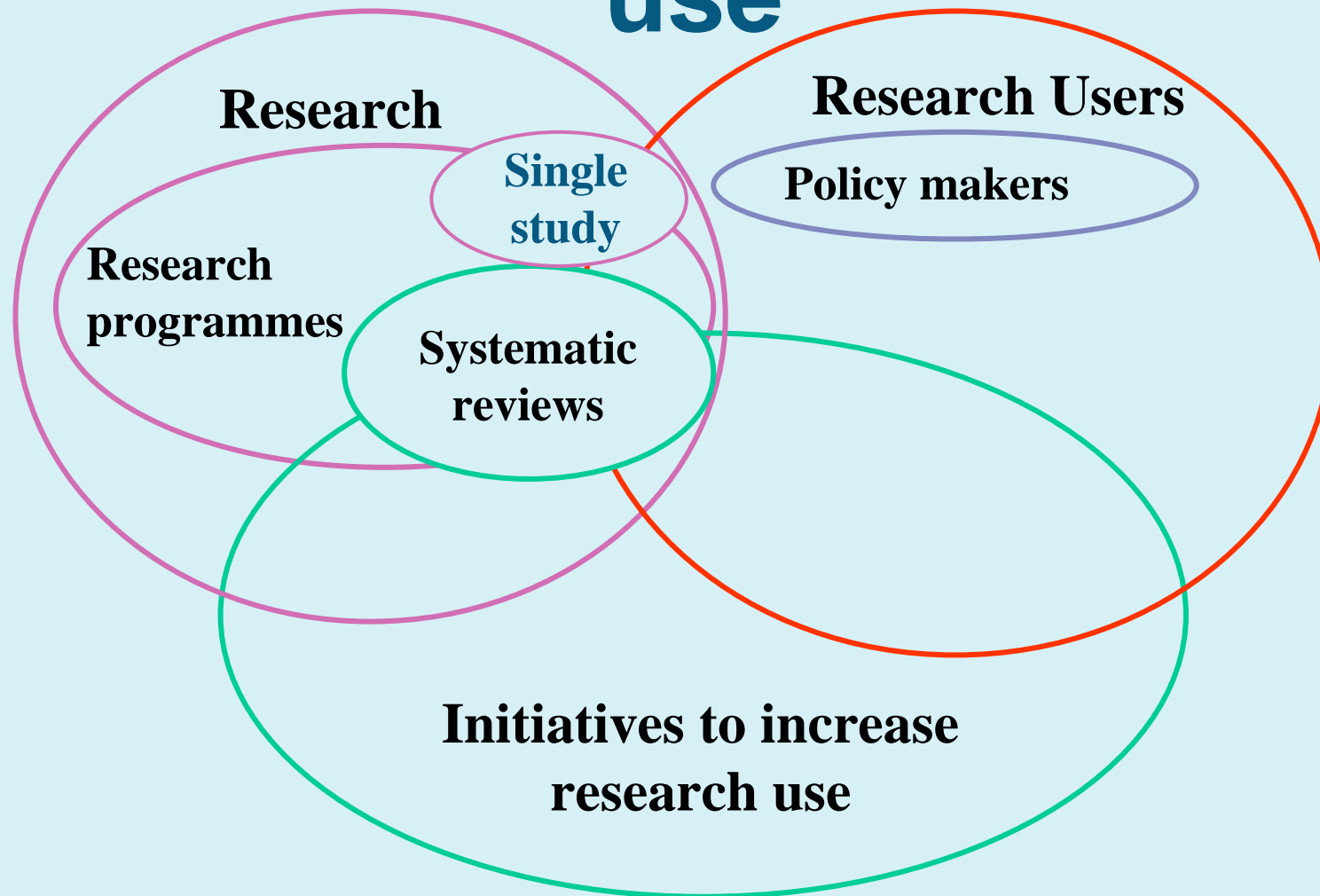
<sup>2</sup> Barry Sheerman, MP, Chair of the House of Commons Select Committee on Children, Schools and Families



# Review question: How do you (best) evaluate the impact of research on policy?

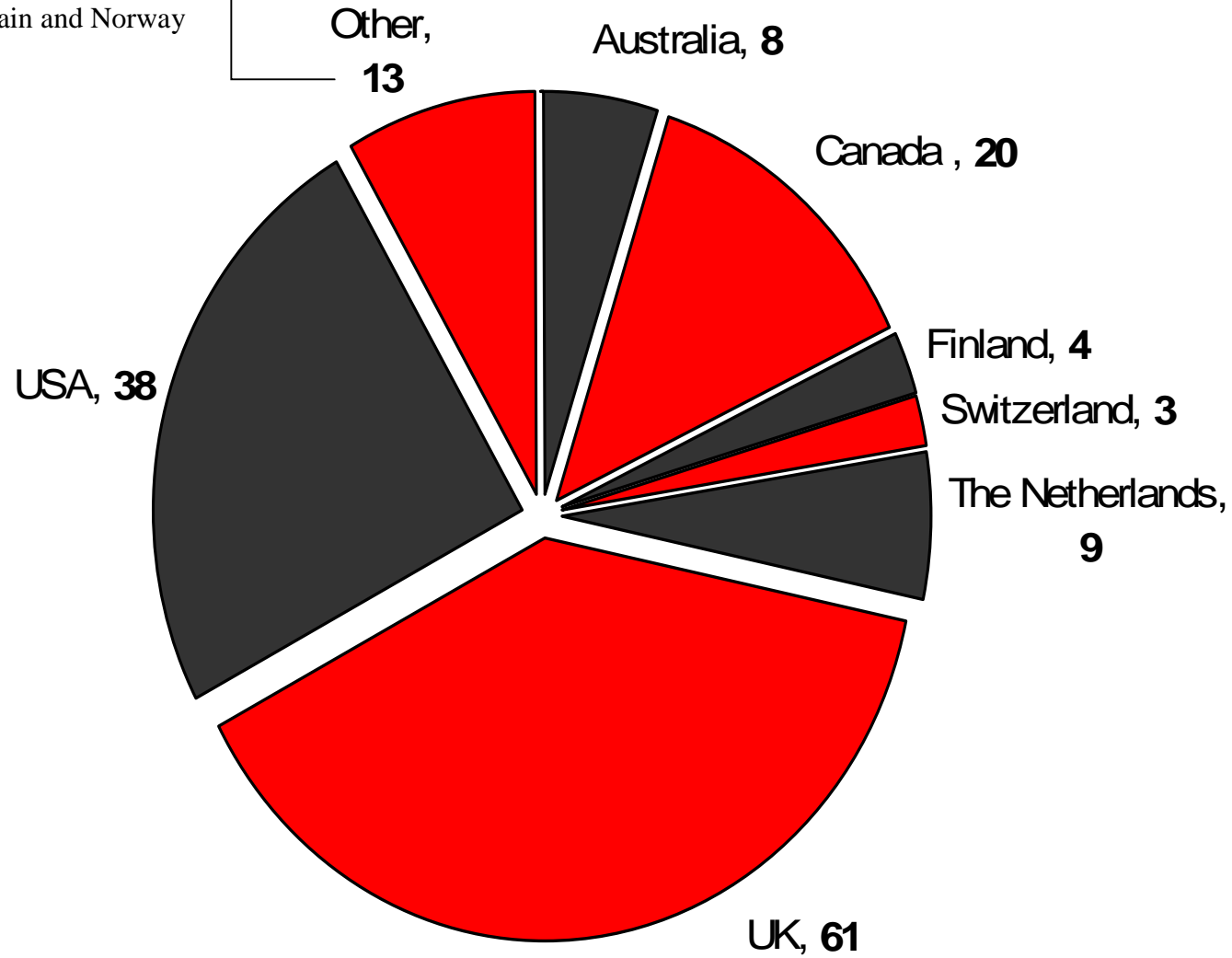
- Search of 10 research databases
- 1987-2007
- UK and international sources
- Explored the websites of 30 organizations
- Hand search of selected journals and reference lists
- Search of SPRU and IDS library catalogues

# Focusing the review on **policy use**

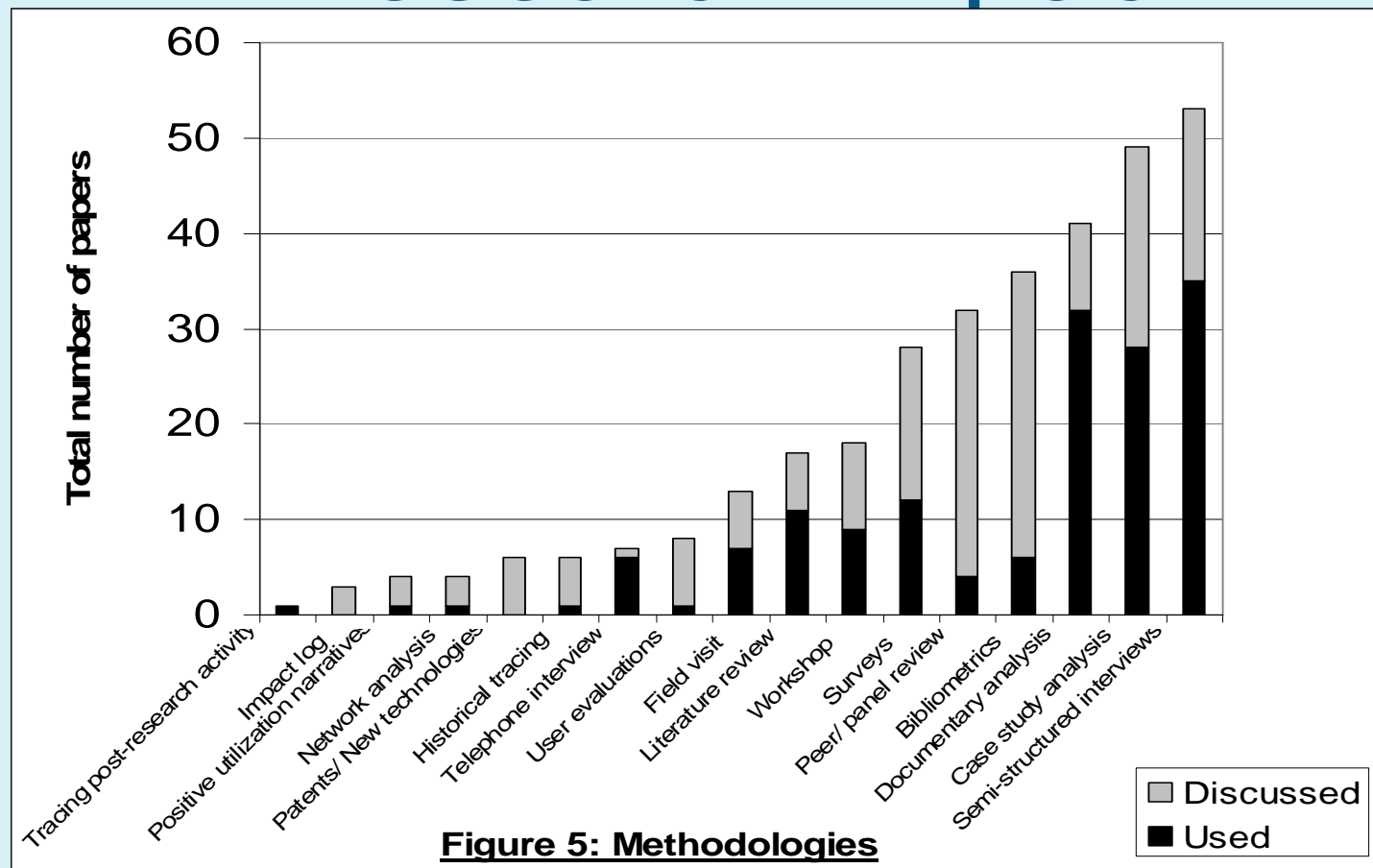


## Country of Origin

Other includes: Brazil, Denmark, Spain and Norway



# Methods for measuring research impact



# How do people evaluate the impact of research programmes?

Wide range of methods and approaches (often in combination):

- Qualitative methods: semi-structured interviews, documentary analysis, field visits and observations
- Quantitative methods: surveys, bibliometrics and patent/new technology tracking
- Panels and peer review
- Workshops and focus groups
- Process tracking

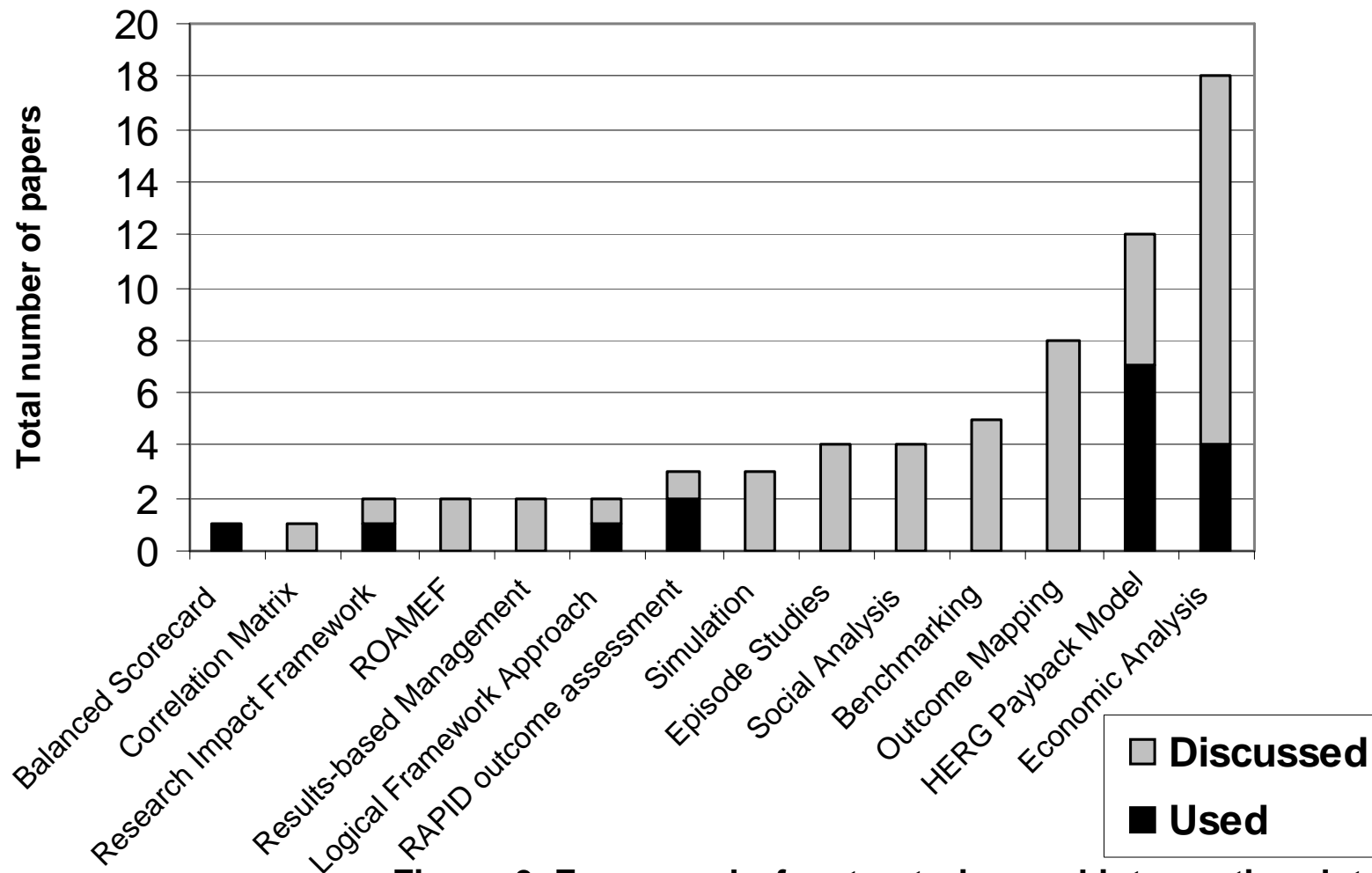
EU  
examples

Overseas  
development  
examples

# Some examples

Evaluation of the impact of the UK ESRC Future of Work programme, and reflection on the applicability of the HERG Payback model to the social sciences. Data were collected using document review, key informant interviews, an on-line survey of all Principal Investigators, and four case studies to analyse the pathways to impact (including policy impact) in more detail.

The Netherlands Environment Ministry conducted two surveys (using external evaluators) of all policy makers who had commissioned research in a particular year. The compulsory questionnaire asked how, and the extent to which, the research had been used, and was followed up with interviews.



**Figure 6: Frameworks for structuring and interpreting data**

# 8 key questions (when evaluating the impact of Knowledge Transfer)

1. What is your conceptual framework?
2. What are the outcomes of interest?
3. What methods will best explore the outcomes of interest?
4. How do you address attribution?
5. What is the direction of travel for the evaluation?
6. Is this a mixed method approach, providing scope for triangulation?
7. Will the methods selected capture context and the complexity?
8. When might be the best time to conduct the evaluation?

**These need to be considered in the light of the time, skills and resources available for the evaluation.**

See Boaz et al 2009



The Foundation for Research, Science and Technology (New Zealand)

French Ministry of Ecology, Energy, Sustainable Development and the Sea

Land and Water Australia

Stockholm Environment Institute

CGIAR

# Ten impact assessment case studies

The Irish Environmental Protection Agency

Defra

Environment Agency (England and Wales)

Finnish Environment Institute

Swedish Environmental Protection Agency

# Environment Agency of England and Wales



Project evaluation with a small sample  
of the project portfolio (5-10/300)

Workshop format with key players and  
Agency project managers

Goal: To justify the benefits of the  
research investment

# Finnish Environmental Institute

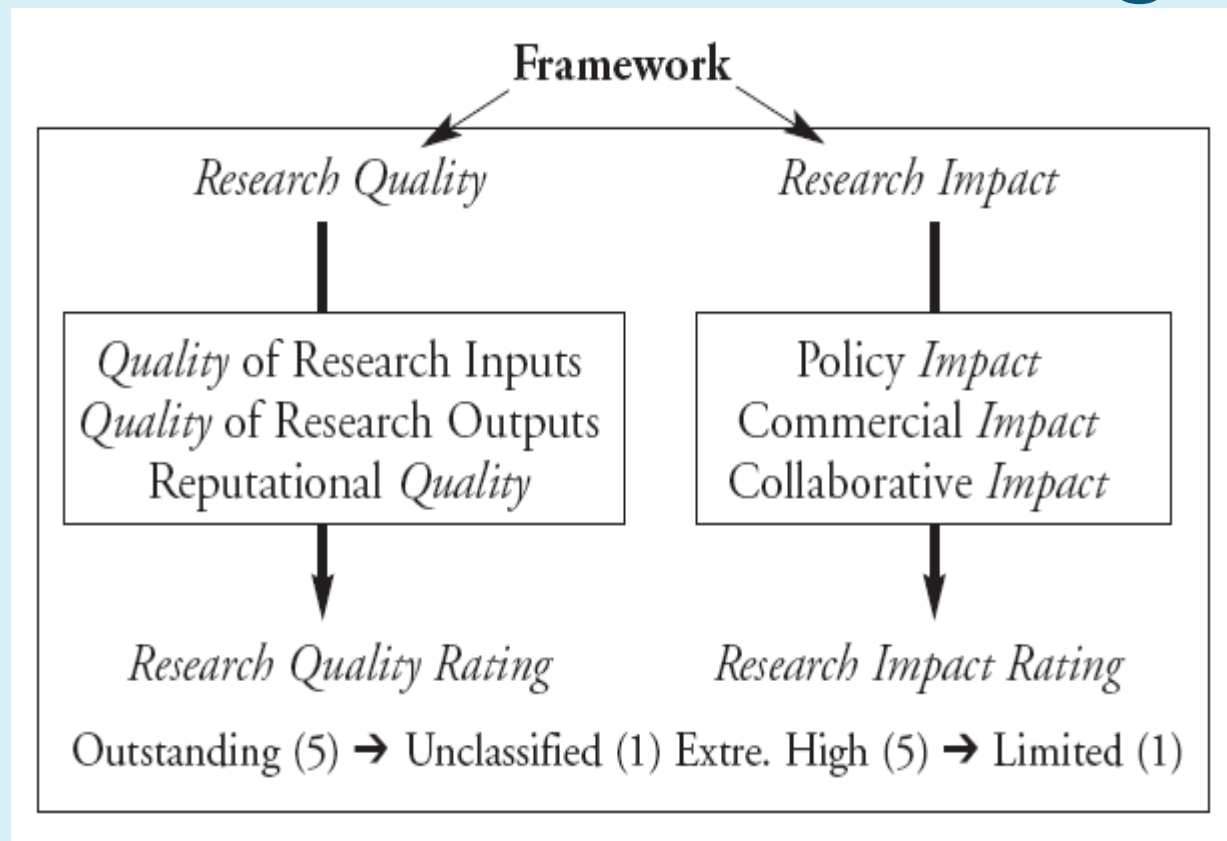
Embedded approach: Ten year independent evaluation, four year strategic evaluations, internal annual evaluations, annual researcher self evaluation

Goal: how to increase impact

Methods: multi-method



# The Irish Environmental Protection Agency



# Key themes from the 10 cases:

- Diverse objectives, scope and scale
- Types of approach
- Generic challenges
- Challenges specific to environmental research

# Key themes:

- Diverse objectives, scope and scale
- Types of approach
- **Generic challenges** /
  - Attribution
  - Timing
  - Reliability
  - Methods
  - The 'Cassandra problem'
  - Resources required
  - Lack of process data
  - Vulnerable
- Challenges specific to research

# How can we understand these findings?

Three generations of thinking about knowledge transfer:

1. Linear models
2. Relationship models
3. Systems models

Best and Holmes (2010)

# Systems dimensions of interest in promoting knowledge transfer:

- Evidence and knowledge
- Leadership
- Networks
- Communications

Best and Holmes (2010)



# Implications for the case studies:

- The evaluations were often not informed by a knowledge transfer model
- Focusing on the flow of knowledge into policy/ practice
- Very little about networks, leadership, more on the nature of evidence

# Conclusions/ 'To do' list

1. Develop and apply KT conceptual models
2. Consider the implications of systems thinking for KT
3. Develop third generation KT initiatives
4. Reflect on/ asses the impact of KT

Some useful references:

- Best, A and Holmes, B (2010) Systems thinking, knowledge and action. *Evidence and Policy*. 6 (2): 145-149
- Boaz, A, Fitzpatrick, S and Shaw, B (2009) Assessing the impact of research on policy: a literature review. *Science and Public Policy*, 36(4): 255-270
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