



Overview of Models of Performance-Based Research Funding Systems (PRFS)

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What's a PRFS and what's not

PRFS are:

National systems
of ex-post
university
research output
evaluation used
to inform
distribution of
funding

- Not:

- Evaluations of the quality of degree programs and teaching.
- Evaluations of research proposals for project or program funding
- Systems that allocate funding based only on PhD student numbers and external research income
- Ex-post evaluation of university research performance used only to provide feedback to institutions
- University evaluations of their own research standing

National performance-based research funding systems for universities

Country	System	Year implemented/ major revision
UK	RAE moving to REF - research excellence framework	1986/current
Spain	CNEAI - National Commission for the Evaluation - sexenio	1989
Slovak Republic		1992/2002
Hong Kong	RAE	1993
Australia	Composite Index, Research Quality Framework (RQF), Excellence in Research for Australia (ERA)	1995/current
Poland	KBN statutory funding, "parametric method"	1998/current
Italy	Valutazione Triennale della Ricerca (VTR)	Evaluation 2001-03/funded 2009
New Zealand	Performance based research funding (PBRF)	2003/current
Flanders	BOF-key	2003/2008
Norway	Norwegian model (new model for result based university research funding)	2006
Sweden	New model for allocation of resources	2008
Denmark	Implementation of the Norwegian model	Current
Finland		2010

Why?

The rationale of performance funding is that funds should flow to institutions where performance is manifest: "performing" institutions should receive more income than lesser performing institutions, which would provide performers with a competitive edge and would stimulate less performing institutions to perform. Output should be rewarded, not input.

(Herbst, 2007, p. 90)

Why: S&T literature

global competitiveness

. . . research performance is widely regarded as being a major factor in economic performance...

The economic dimension of (university-based) research in terms of expected economic and societal benefit and increased expenditure goes a long way to explain the heightened concern for quality and excellence in research, for transparency, accountability, comparability and competition, and for performance indicators and assessment.

(European Commission, 2010, p.9)

Why: Higher education literature

new public management reforms

- greater productivity
- more public reliance on private markets
- a stronger service orientation
- devolution to subnational government
- increased capacity to formulate and evaluate policy
- enhanced accountability

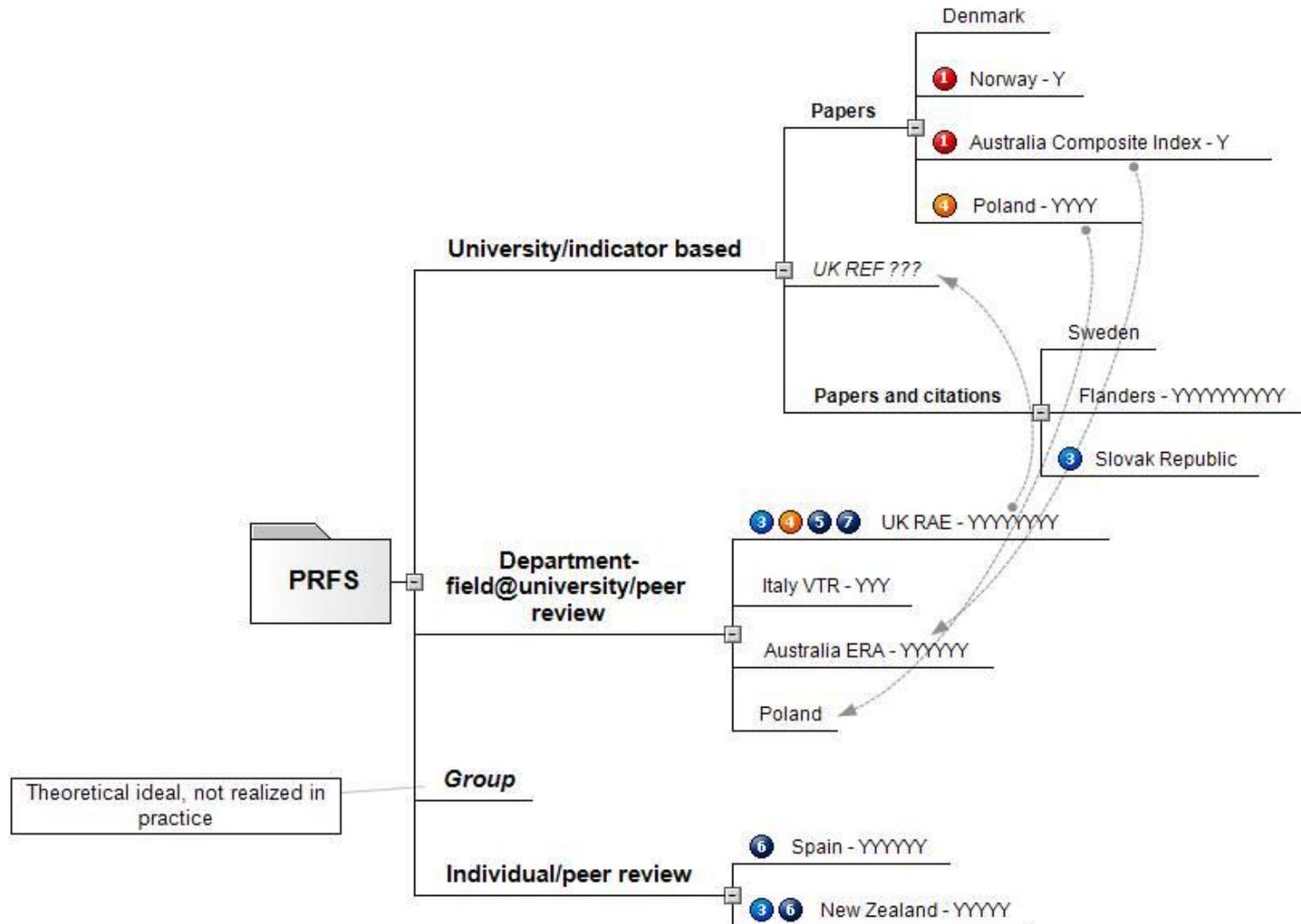
Why: government rationales

- Selectivity (UK RAE, Sweden)
- Greater international research profile (Spain)
- Etc.

Research Excellence

PRFS classification

Frequency of publication period



€€€€€€€€ Cost ????????

- Italy's peer review VTR

18 months

20 disciplinary areas

102 research structures

6,661 peer reviewers

17,300 unique written works assessed including 2,900 books

€3.55 million direct cost

Franceschet & Costantini, 2009

5,800 reviewers read a book in addition to the 4 articles everybody was assigned

€€€€€€€€ Indicator system cost ????????

- Establishing and maintaining a national research documentation system
- + Buying supplemental information from database providers
- + Data cleaning and validation
- + Indicator calculation
- + Auditing of submissions
- = ?

Financial impact

10.5%

10%

- **Everybody provides a number, no two parties provide the same number**

- Share of:

- total university resources (government plus other funding)
- government funding for universities (block grant plus research grants and contracts)
- block grant or "general university funds" (GUF)
- research resources (total of government)

- share allocated according to the performance formula (which might include research performance assessment as well as graduate student numbers and amount of outside funding raised for example)

- Share depending just on assessment of research output.

- Static or trends over time?

- The amount that moves between universities in any two years

24%

2%

6%

15%

12.5%

2%

Thoughts on financial impact

- Analysts emphasize the small amounts of money involved or the small amount that moves in any one year as a result of the evaluation (Jimenez-Contreras et al., 2003; Sanz-Menendez, 1995; Sivertsen, 2010; Sastry & Bekhradnia, 2006; Rodríguez-Navarro, 2009)
- But
 - PRFS might entrain other parts of the funding system and amplify their effect
 - PRFS might create pressure to increase funding
 - Small effects might accumulate over many years into big effects

PRFS impact

The RAE created assured, aspiring and anxious universities

In Australia nothing less than the positional status of every institution was at stake; the process of competitive ranking had a compelling effect, leading to the rapid spread of a reflective culture of continuous improvement (Marginson, 1997b, p. 74)

- Contestability is introduced into a system
- Universities are extremely sensitive to public judgments of relative prestige

Autonomy and control

- University level – PRFS effect contradictory and ambiguous
 - To compete effectively universities need discretionary budgets and autonomous decision making
 - Ministries seem to want to increase autonomy and retain control
- Individual level – PRFS can enhance control by professional elites

Diversity and transparency

- Diversity is a challenge
 - Institutional (strong vs weak research insts)
 - Field (science vs social science & humanities)
 - Goal (publishing versus societal impact)
- Transparency is required
 - Design consultation
 - Execution – formula & peer review guidelines
 - Results – published & used by others

Dynamic considerations

- Increasing complexity
- Increase in behavior optimized for specific ranking system rather than aiming for research excellence
- Diminishing returns
 - But can increased performance be maintained if PRFS is removed?

Alternatives

- International university rankings
 - Shanghai Jaio Tong
 - Times Higher Ed
 - Forthcoming private products
- Center of excellence approaches
 - Germany
 - Japan
 - China (985 program)

Provides contestability but
Discretionary resources
and
Autonomy
are also required

Some comparative research needed here
PRFS vs CoEx

Performance based research funding systems

- Good for:
 - introducing contestability to encourage research excellence as defined by the academic elite
- Not so good for:
 - Equity
 - Maintaining national and cultural identity
 - Encouraging broader societal and economic outcomes from research
 - Novelty, innovation, intellectual diversity