



# RECENT OECD WORK ON NATIONAL RESEARCH SYSTEMS

Michael Keenan, Directorate for Science, Technology  
and Industry, OECD

Contribution to the 2013 ERAC Mutual Learning Seminar on  
Research and Innovation Policies, European Commission

Brussels, 21 March 2013



## Recent relevant OECD work

---

- Performance-based funding for public research in tertiary education institutions (2010)
- Public research institutions: mapping sector trends (2011)
- New forms of incentive funding for public research (2013)
- Ongoing GBAORD data work (2008-) => Frascati Manual revision
- Various country reviews of innovation policy, e.g. Sweden (2013), Slovenia (2012), Russia (2011), Korea (2009), New Zealand (2007), etc.
- OECD-World Bank Innovation Policy Platform (2013-)



# Performance-based funding for public research in tertiary education institutions

---

- Scope:
  - Experts commissioned to investigate models, indicators and impacts
  - Questionnaire survey completed by 13 countries
- Key findings:
  - Most schemes introduced since 2000
  - Main rationale: raise quality of research; but also others
  - Assessments commonly used for several rounds of annual funding
  - Open disclosure of processes and results in most countries
  - Similarities in indicators used: 3<sup>rd</sup> party income, publications, degree completions; differences in combinations and weighting, reliance on quantitative indicators and peer review, and use of additional indicators
  - Differences in budget impacts of schemes: while difficult to compare across countries, annual block funding affected ranges from 6% to 75%
  - Differences in the involvement of HEIs in designing schemes
  - Few formal evaluations of schemes – evidence suggests positive effects on research outputs and research management
  - Negative and unintended consequences also highlighted: e.g. narrowing of research focus on publications targeted at certain journals



# Public research institutions: mapping sector trends

---

- Scope:
  - 20 countries participated: country notes / questionnaires
  - 12 institutional case studies
- Key findings:
  - Amid diversity, discernible trend towards more competitive funding
  - Variety of public funding sources
  - A trend too far? Concerns around short-termism, convergence, careers, infrastructures, etc. Korea and New Zealand have notably reinstated core funding on account of these concerns
  - At least two meanings of ‘autonomy’ uncovered: (i) legal status and (ii) block grants without strings
  - Autonomy with accountability: instances of core funding that is part performance-based, e.g. Norway, Korea
  - Interest in full economic costing to support capital and infrastructure



# New forms of incentive funding for public research

---

- Scope:
  - Research Excellence Initiatives (REIs)
  - Review of 24 REIs from 16 countries
- Key findings:
  - Combine features of both institutional and project-based funding – provide funding, but also prestige
  - Objective: international competitiveness of research
  - Part of strategies to fund fewer institutions, selected on the basis of excellent performance and future potential
  - Selection panels tend to be internationally staffed
  - Variation in focus: young researchers, infrastructure, attracting international talent, cooperation with industry
  - REIs as change agents?
  - Evaluation evidence remains weak – long-term effects remain unverified and evaluation efforts have yet to focus on effects on research landscape as a whole



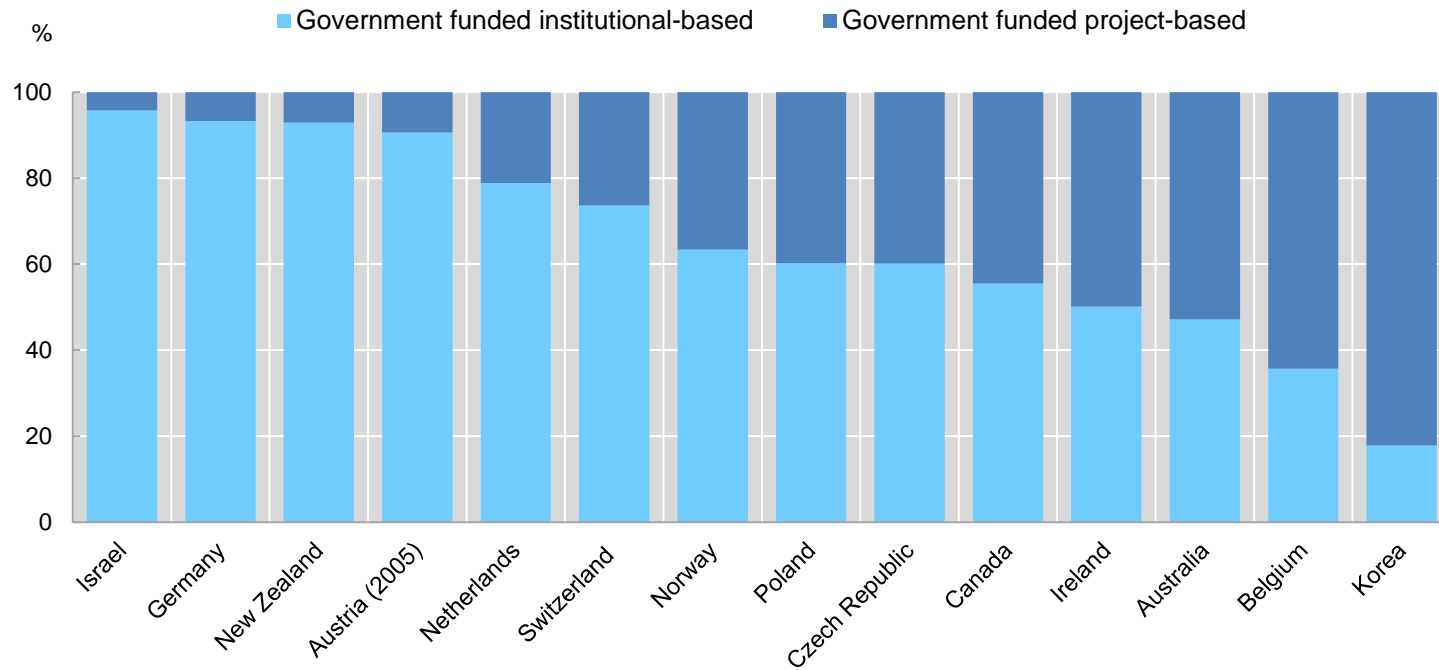
# Modes of public funding: GBAORD data work

---

- Scope:
  - Develop R&D funding indicators that better align with policy needs
  - 18 countries participated in NESTI pilot project, building on EU PRIME Network study
  - National GBAORD databases + direct requests / admin docs
- Key findings:
  - National GBAORD data can be used to distinguish institutional and project funding, which can be further broken down by performing sector and (in some cases) by type of instrument
  - Further work required on definitions
  - Supplementary information is often needed to make these distinctions => need for some augmentation of national GBAORD databases
  - Complementary qualitative data is needed to interpret results



# Government funded R&D in higher education by type of funding, 2008





## Project funding as a % of public funding

|                 | <b>2000</b> | <b>2005</b> | <b>2008</b> |
|-----------------|-------------|-------------|-------------|
| New Zealand     | -           | 74.6        | 71.9        |
| Korea           | -           | 69.1        | 68.9        |
| Belgium         | -           | -           | 55.7        |
| Finland         | -           | 46.2        | 52.8        |
| Ireland         | -           | -           | 52.2        |
| Australia       | 30.5        | 44.7        | 47.1        |
| Czech Republic  | 51.3        | 43.4        | 46.7        |
| Norway          | -           | 43.7        | 41.5        |
| Slovak Republic | -           | 40.9        | 39.5        |
| Germany         | -           | -           | 34.6        |
| Israel          | 45.7        | 41.1        | 35.7        |
| Canada          | 31.9        | 36.5        | 34.6        |
| Poland          | 29.4        | 33.2        | 31.4        |
| Austria         | 16.1        | 24.1        | 28.9        |
| Netherlands     | 29.7        | 22.4        | 27.8        |
| Denmark         | -           | -           | 25.9        |
| Switzerland     | 25.5        | 25.3        | 23.2        |





# OECD country reviews of innovation policy

- 14 reviews completed since 2006, another 6 ongoing / pipelined
- Examine whole innovation system and the role of public policy
- Public research system dealt with prominently, but is just one element
- Issues of public research governance (funding, evaluation, research performer autonomy) are covered





# OECD-World Bank Innovation Policy Platform

---

- There are unlikely to be ideal types / single best practices / once and for all optimum balances associated with the questions raised here
- But we can probably better marshal available evidence to support policy analysis and design efforts around these questions
- The IPP is a knowledge management system that organises and links together existing data and qualitative information to enable policy learning
- It helps to frame questions and provides guidance on where to look for some answers
- Initially utilises the OECD's store of data and reports, but will be expanded later
- Closed beta launch in June to OECD delegates, public beta launch in October



Search

About News Contact

DOCUMENTS DATA PEOPLE ADVANCED SEARCH

Browse by Country

Select a Topic

Applications

Statistics

Entrepreneurship

R&D

Finance

Clustering

Demand

Entrepreneurship

R&D

Finance

Clustering

# Welcome to the IPP

The Innovation Policy Platform provides policy makers and 'shapers' with relevant information about innovation, guides them in identifying problems, and supports designing appropriate policy solutions. We recommend choosing a topic to focus your search. Alternatively, you can browse the entire IPP. [Learn More](#)

## New in the IPP





# THANKS!

[michael.keenan@oecd.org](mailto:michael.keenan@oecd.org)

With acknowledgements to Ester Basri ([ester.basri@oecd.org](mailto:ester.basri@oecd.org))  
and Ken Guy ([ken.guy@oecd.org](mailto:ken.guy@oecd.org))