

**Innovation in the public sector**  
**Suggestions for a public-sector innovation index**

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## Study questions

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- Review literature on innovation measurement in the public sector
- Describe good practice in public sector innovation measurement
- Elaborate options for a public sector innovation index

## Innovation measurement literature

- +50 years of continuous studies internationally on innovation, although mostly concerned with innovation in the private sector
  - Industrial economics, sociology, management studies, economic history, political science
  - Econometric, empirical, quantitative and qualitative, international comparisons, etc
  - Descriptive and explanatory material
  - +30 years work on science and technology metrics and indicators
- +10 years worth of studies on innovation in the public sector
  - Applied policy research
  - Predominantly descriptive and taxonomic work
- Public sector innovation differs slightly from private
  - Politics is a key driver of service / organisational innovation
  - Process innovation tends to predominate, in pursuit of gains in transaction speed, consistency and unit cost
  - Public bureaucracies as large monopolies designed to provide universal access and services of uniform quality, rewarding consistency rather than innovation
- Literature on public-sector innovation *measurement* is small

## Innovation measurement practice in the public sector

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- Innovation is an increasingly important topic, which has been given an added boost by the DIUS Annual Innovation Report
- Innovation is being studied but not measured systematically, at agency level
  - Case studies of innovation
  - Studies of how innovation works in particular settings
  - Very preliminary work on monitoring and metrics
- Several cross-departmental reports, but most somewhat narrow in focus
  - ONS / UKCeMGA work on TFP and quality
  - DIUS / ONS SET surveys and statistics
  - DIUS annual survey of knowledge transfer in PSREs
  - DIUS Annual Innovation Report (AIR)

## A possible framework for a public-sector innovation index

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- **Must be a generic framework**
  - **Different departmental / agency missions (e.g. policy, regulation, service delivery, etc)**
  - **Diversity of operational domains (education, health, migration, etc)**
  - **All broad classes of innovation (organisational, process, service)**
  - **Capture the extent of innovation OUTCOMES as well as inputs / outputs**
- **Public innovation index might reasonably start with framework and measures used in private sector**

## An innovation index - some possible options

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- The literature and fieldwork led us to conclude that an index is feasible
  - There are perhaps three options for NESTA and its partners to consider
    - Extension of UKCeMGA work on total factor productivity in public services
    - Extension of SET statistics, as basis for an index of innovation inputs by department and NDPB
    - Creation of a wholly new annual survey to gather output / outcome data for departments and NDPBs, modelled on the private sector Community Innovation Survey (CIS)
  - The third option appears to be the most attractive
    - Productivity only partially captures innovation. NESTA might be best placed to support ONS / CEGME with its ongoing research and data development
    - SET statistics focus on innovation inputs (people and money) as applied to technological innovation (for policy and service delivery)
    - A new CIS-style periodical survey is arguably the most practicable direct route to capturing innovation behaviour and outcomes at the agency level
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## Possible indicators to capture public-sector innovation

Aspect	Measure
<b>Precondition</b>	Existence of an innovation strategy
<b>Precondition</b>	Existence of an innovation monitoring and reporting system
<b>Input</b>	Annual expenditure on innovation activity (e.g. R&D expenditure)
<b>Input</b>	Employment of people involved in innovation, in FTE (e.g. % of scientists and engineers)
<b>Output</b>	Number of novel organisational models introduced
<b>Output</b>	Number of novel services implemented
<b>Output</b>	Number of novel processes implemented
<b>Outcome</b>	% of client population using novel services
<b>Outcome</b>	% of clients indicating high satisfaction with quality of novel services
<b>Outcome</b>	% of clients reporting improved outcomes as a result of switch to new service
<b>Impact</b>	Contribution of innovation to realisation of public service agreements
<b>Context</b>	Departmental or agency mission and objectives
<b>Context</b>	Number of staff
<b>Context</b>	Annual expenditure

## A Public Sector Innovation Scoreboard?

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- **Pilot phase**
    - Develop and test in conjunction with volunteer GD and NDPBs
    - Establish Steering Group to oversee pilot (DIUS, Departments, experts)
    - Develop set of agreed metrics/indicators (DIUS, SG contractor)
    - Design survey tool / methodology and submission guidelines (DIUS, SG, contractor)
    - Implement 1st survey, directed to 10 departments and NDPBs (contractor) (2009)
    - Produce indicative scoreboard and capture lessons (contractor)
    - Evolve survey design ready for 2nd iteration of pilot (DIUS, SG, contractor) (2010)
  - **Early adolescence**
    - Combine survey with AIR for year three, switching from voluntary to mandatory and from part to full coverage (with necessary exceptions)
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## Costing the pilot and full survey

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- **Basic parameters**
    - **Full economic cost, internal resources and external purchases**
    - **Include costs of Scoreboard coordinator(s) and data contributors**
    - **Problem: unit of analysis**
  - **A first approximation**
    - **Pilot**
      - Central costs: DIUS 1.5 FTE (£150K) and contractor 1.5 FTE (£150K) = £300k
      - Contributors (upper bound): contributing departments (8) average 1 FTE and £50K support (£150K)=£1.2million
      - Full economic cost of pilot: approx. £1.5million
    - **Full survey**
      - Central costs: £0.5 million
      - Contributors (upper bound): contributing departments (40) x £100K = £4 million
      - Full economic cost of survey: approx. £4.5 million
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