

Innovation Index Working Paper

Innovation in the Public and Third Sectors

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NESTA is the National Endowment for Science Technology and the Arts. Our aim is to transform the UK's capacity for innovation. We invest in early-stage companies, inform innovation policy and encourage a culture that helps innovation to flourish.

This working paper was published as part of the Innovation Index project that NESTA is running pursuant to Recommendation 18 in the UK Government's 'Innovation Nation' white paper (March, 2008). As a consequence, it is intended to extend and provoke debate on issues related to innovation measurement. The views expressed are those of the author(s) and do not necessarily represent those of NESTA.

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Innovation Index: 2008 Summer Mini-Projects

Mini-project 4: Innovation in the public and third sectors

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Executive summary

Introduction

This working paper presents the results of a feasibility study to explore current practice in the UK and overseas in respect to the measurement of innovation in the public sector.

The paper comprises a brief look at the idea of innovation in general and in the public sector specifically, before going on to elaborate a proposal for developing a new public-sector innovation index. The paper offers a more concrete discussion on innovation in government through two case studies, in healthcare and in adult social care.

Innovation in the private sector

Since Schumpeter's writing in the first half of the twentieth century, a distinction has been made between an *invention* – the creation of something novel – and *innovation* – the first successful application of an invention, traditionally in a commercial environment.

The field of study launched by Schumpeter's writing, innovation studies, has come to distinguish between innovation and the diffusion of an innovation, where the latter process implies adoption and even buying, rather than innovating. An innovation is unlikely to achieve large-scale impact until a process of *diffusion* has occurred to diversify its application to many producers, consumers and regions or countries.

Subsequent studies of innovation have led to a widely used, standard classification scheme capturing the major types of innovation, which is the following:

- *Product* innovation, the introduction of a good or service that is new or which represents a significant improvement over its predecessors
- *Process* innovation, representing the implementation of a new or significantly improved method of production
- *Organisational* innovation, the application of a new organisational method or arrangement.

Historically, the focus has been on technological innovation in the manufacturing sector, however it is clear that a great deal of innovation is non-technological and might include changes to business models, organisational structure or values. It is also clear that innovation occurs in services too, and high-value services such as wholesale / retail or finance / insurance can be highly innovative.

Innovation in the public sector

In the public sector, innovation is also increasingly widespread, even though there is a wide range of factors that are presumed to limit or dissuade civil servants from innovating. Of course, there has always been innovation in policies, regulatory frameworks and public services arising top-down, from a political mandate. However, contemporary public services have much stronger incentive to innovate, driven by the twin pressures of public and media expectations regarding access to and quality of public services and tightening public finances, which demand that all public administrations find ways to maintain or improve service quality while reducing costs.

Turning to the case studies, a number of 'organisational' health sector innovations have been introduced in the last decade or so. NHS Direct, for example, provides a telephone-based service for callers who describe symptoms and are advised on appropriate action, such as self-care, visit to a GP, attendance at A&E or referral to the 999 service. As with other changes in organisation of patient contact, significant IT innovations can be involved.

The NHS Plan (July 2000) introduced the Government's intention to link the allocation of funds to hospitals to the activity they undertake. Historically, hospitals have been paid according to "block contracts" – a fixed sum of money for a broadly specified service – which provided no incentive for providers to increase throughput, since they got no additional funding. Under the new system, hospitals are paid for the elective activity they undertake, a system of payment by results. This new financial system offers incentives to reward performance, to support sustainable reductions in waiting

times for patients and to make the best use of available capacity. The Audit Commission has concluded that following the introduction of Payment by Results, most hospitals have improved their financial management and have a better understanding of how much it costs to treat patients.

An example of an important innovation in adult social care would be direct payments for disabled people, so-called Individual Budgets, with which disabled people can buy the services they need. Individual Budgets have involved a policy shift - not only a shift in service delivery. They were pressed for by disabled people themselves, in particular the charity "in Control". In Control was successful in pressing for this innovation, because it was able to operate both at the policy and service level. Individual Budgets have entailed a whole cluster of other innovations.

Evidence of existing measurement activities

The case studies suggest that there will be differences between agencies as regards the need for and opportunities to innovate, which might in some ways mimic the sorts of differences evident in the private sector, where the importance of innovation or of technology is clearly more or less central as one moves from agriculture to manufacturing to construction to finance to business services.

While innovation in the public sector is increasingly studied and an emergent dimension of agency performance, our interviews suggest that the measurement and reporting of innovation in any formal and systematic sense, is in its infancy. Agencies are focused on performance improvement in a more general sense, and in particular in the area of value for money.

This feasibility study was not able to carry out any kind of exhaustive review of international practice, however the preliminary impression is that few if any individual agencies overseas are pressing forward with measuring their own innovation.

The situation appears to be broadly similar at the government level too. We found just one good example of a national initiative to measure public sector innovation, which is the Korean Government Innovation Index, which was launched in 2005.

The importance of the public sector within the economy and the importance of innovation to the delivery of effective and efficient public services has been pointed to by several recent government policy documents and DIUS's most recent innovation strategy, Innovation Nation (2008), picking up on the recommendations of the Sainsbury Review, made a commitment to launch a new public monitoring system, the Annual Innovation Report (AIR). The first departmental returns were being presented to DIUS in September 2008, and the first edition of a consolidated UK Annual Innovation Report is expected in spring 2009.

The NESTA project might very well benefit from its timing and in particular the coincidence of the proposed second-phase with the compilation and possible publication of the UK's first, systematic, government wide, agency level view of innovation in the public sector.

It is not possible to design an index based on current good practice around the measurement of public innovation, given the state of the art on the ground, within individual agencies.

Governments and others do have a lot of experience of measuring private-sector innovation as well as performance measurement in government more generally, and there do exist several scoreboards and data sets of relevance to innovation, although predominantly in the private sector.

We used this list of existing data sets as a means by which to infer where it might be appropriate to develop indices for the public sector.

There are some evident gaps on both the private and public sectors, with the most obvious being any index that deals with innovation outcomes, with the ONS' work on multi-factor productivity growth looking to be the most relevant (here in the UK). Elsewhere the issue of outcomes is dealt with through the use of more qualitative material and in particular through the presentation of selected impact case studies.

There are some gaps evident too that relate more specifically to the public sector. The first is that while there are many public-sector 'innovation' indicators in evidence, there is only one instance where the data set or annual report in question has an explicit remit to address innovation in the public sector, which is the newly-launched DIUS Annual Innovation Report. The second 'gap' relates to attempts to quantify innovation outputs and outcomes within the public sector, in the way that the Community Innovation Survey does for the private sector. The DIUS annual survey of public sector

research establishments does address innovation outcomes, however its scope is rather narrow as regards the full spread of public services, and it is focused on technological innovation.

Options for measuring innovation in the public sector

Based on our literature review, the health and adult social care case studies and our knowledge of innovation data sets, we presented three possible options for NESTA to consider with regard to its ambition to develop a public-sector innovation index.

In conclusion, we have taken the view that NESTA should move forward with work to pilot a Public Sector Innovation Scoreboard, based on a voluntary survey, using the Community Innovation Survey as a starting point, and implemented with a view to its being adopted by DIUS within two or three iterations as a complement to its AIR.

We also take the view that NESTA might reasonably explore the ease with which a credible and useful index might be developed out of the existing DIUS / ONS departmental survey of R&D, as well as exploring partners' willingness, within the demise of the OECD working group, to develop and trial an international scoreboard in say health and education. This might be a natural successor to the Government's annual 'Forward Look', which presented a strategic overview of R&D priorities and investment, alongside a statistical supplement and catalogue of departmental statements.

On the third option, a multi-factor productivity index for the public sector, we concluded that NESTA should not seek to progress this work but rather support and monitor the earlier and substantial commitment of the ONS.

Recommendation

In practical terms, we suggest NESTA should concentrate on the first of these three options, the proposed Public-Sector Innovation Scoreboard.

We suggest the Public-Sector Innovation Scoreboard should be based on an annual voluntary survey of government departments and NDPBs, which parallels the Community Innovation Survey inasmuch as it would seek to gather quantitative and semi-quantitative data on innovation inputs and outputs as well as preconditions and drivers and barriers.

The taxonomies will no doubt need to be worked on, to adapt them to cope with the particularities of innovation in the public sector (e.g. policy-led 'motives' or social objectives or public value / principles, etc) and the creation of an advisory group comprising users and experts might be a helpful accompaniment. On balance, we recommend NESTA consider each of the following as possible principles around which to organise the pilot survey and scoreboard

- Indicators should be developed and piloted in spring with a view to running the survey in the early summer ready for publication / deliberation of meaning / utility / appropriateness of the resulting index in autumn 2009
- Standard indicator-development methodology should be used, which will impose some important principles (e.g. validity, reliability, availability, credibility, economy, etc), so for example 20 indicators might be preferable to 40. Should consist of input, output and if possible generic outcome indicators as well as indicators measuring the capacity to innovate ('pre-conditions') and barriers and drivers, to give a balanced picture of public-sector innovation. Should employ a mixture of both objective and subjective measures, to boost validity and reliability. Must not be too costly to implement for GDs / NDPBs, so will need to be developed in partnership with volunteer agencies
- The survey should focus on four or five GDs and four or five NDPBs in the first round, inviting volunteers from amongst those departments and agencies that are already committed to doing more on this front with internal project teams and senior management support (e.g. DH and HO migrant agency). The AIR returns will be a valuable source of targeting, from this perspective
- The scoreboard and survey needs to be scalable: service delivery innovation index, local government innovation index, central government innovation index, English government innovation index etc.
- DIUS is the most appropriate lead agency and should seek to dovetail the innovation survey with its work on the AIR

Innovation Index: 2008 Summer Mini-Projects

Mini-project 4: Innovation in the public and third sectors

1. Introduction

This document represents the report by Technopolis Limited to NESTA on preliminary work related to the development of a new Innovation Index, which is expected to be undertaken from October 2008. This mini-project has been carried out over a period of some six weeks centred on August 2008.

This report is structured as follows. In the next section, we introduce key concepts used in the innovation literature. There then follows a discussion of public-sector innovation, and its drivers and barriers, drawing on evidence from the health and social care sectors, which are discussed separately in appendices. The variety of innovation in the public sector is then illustrated with examples from technical, social, financial and political areas. Finally, we discuss issues relevant to the development of a public sector innovation index.

2. Key concepts in the innovation literature

Since Schumpeter's writing in the first half of the twentieth century, a distinction has been made between an *invention* – the creation of something novel – and *innovation* – the first successful application of an invention, traditionally in a commercial environment. An innovation is unlikely to achieve large-scale impact until a process of *diffusion* has occurred to diversify its application to many producers, consumers and regions or countries.

The idea of innovation was a rather important development, in that it encapsulates several additional ideas, whether that be the additional investment or adaptation necessary within an organisation necessary to bring an application to market, or the opportunity for competitors and established applications to respond to a threat through more aggressive pricing or further innovation or the wariness or indifference of the market to the advances of the new. It introduced more degrees of freedom, more uncertainty and more risk.

Subsequent studies of innovation have led to a widely used, standard classification scheme capturing the major types of innovation, which is the following:

- *Product* innovation, the introduction of a good or service that is new or which represents a significant improvement over its predecessors
- *Process* innovation, representing the implementation of a new or significantly improved method of production
- *Organisational* innovation, the application of a new organisational method or arrangement.

For the purposes of the new Index, NESTA has suggested the following definition of innovation: 'Change associated with the creation and adaptation of ideas that are new-to-world, new to nation/region, new-to-industry or new-to-firm' (For the purposes of this report, we would add 'new to the public sector' and 'new to public service area' to this list). This definition clearly brings the notion of *diffusion* under the umbrella of 'innovation', and seems to broaden the definition to include any kind of change in activity.

As distinguished in the Standard Industrial Classification, the manufacturing and service sectors have different characteristics in terms of the nature of their outputs, and the means by which these outputs are produced and delivered. These differences are reflected in differences in the characteristics of innovative activity in the two areas; the distinction between product and process innovations, for example, is less meaningful in service areas, while organisational change at the point of delivery is often predominant.

3. Innovation in the public sector

Like the research into service innovations, research into innovations in the public sector is relatively young. Given the role of public sector activities in modern society this may be somewhat surprising, although a relative lack of direct appropriability of financial rewards by individuals, and the frequently complex and varied nature of public-sector innovation, are no doubt among the explanatory factors.

The benefits of innovation in the public sector, according to a study conducted by the Audit Commission, include improved value for money, achieving more effective service delivery and building stronger community engagement and representation.¹ In short, these can be summarised as efficiency, effectiveness, and connectivity, the latter, with the associated factor of choice, being an important recent consideration in the area of public policy.

The following typology of innovations in the public sector has been proposed²:

- New or improved service: for example home-based care for the elderly
- Process innovation: a change in the manufacturing of a service or product
- Administrative innovation: for example the use of a new policy instrument, which may be a result of policy change
- System innovation: a new system or a fundamental change of an existing system, for instance by the establishment of new organizations or new patterns of cooperation and interaction
- Conceptual innovation: a change in the outlook of actors; such changes are accompanied by the use of new concepts, for example integrated water management or mobility leasing
- Radical change of rationality: meaning that the world view or the mental matrix of the employees of an organization is shifting.

Equating the first of these with product innovation, the second with process innovation, and the rest (insofar as they lead to changes in practice) as aspects of organisational innovation, the simple 'traditional' three-way split in section 2 in largely retained.

The relative complexity of public sector innovation stems largely from a broader range of factors which drive it. The role of profit is replaced by a multiplicity of possibly equally weighted economic, social, political and environmental objectives.

3.1 Drivers for public-sector innovation

The most important are:

3.1.1 Political push

Strategic change in the public sector frequently requires a strong, top-down, political will coupled with the political recognition that change requires the allocation of substantial resources.³ This may be ideologically based or in response to critical events and pressures. It may also include the adoption of new world views and concepts – thus, in several countries successive political ideologies have sought to find free-market solutions mainly to ameliorate the enormous financial burden imposed by a “free” (at point of delivery) public service and also, indirectly, to provide incentives for improved service delivery.⁴ Governments of different political persuasions will also have markedly different views

¹ Audit Commission, Seeing the light. Innovation in local public services, Local government national report, May 2007

² Per Koch and Johan Hauknes, Innovation in the Public Sector, Report No. D20, NIFU Step, Oslo, 2005

³ Jean Hartley, 'Innovation and improvement in Local Government' [online], 2006, available at www.ipeg.org.uk/presentations/bp_hartley_pres.pdf?PHPSESSID=f3f227c19c18b31719e4b0c170ce2489

⁴ Per Koch and Johan Hauknes, Innovation in the Public Sector, Publin Report No. D20, NIFU Step, Oslo, 2005

regarding prioritisation of social (and perhaps environmental) needs; and an ‘innovation’ in these areas may simply undermine actions by preceding administrations.

3.1.2 Pressures for economy and improved efficiency – ‘bang for the buck’

Such pressures are always present at both central and local levels of administration. Indeed, improving efficiency, under internal and external pressure, is currently the strongest driver of innovation at the local level in the UK. According to a study conducted by the Audit Commission⁵, 22% of authorities surveyed described pressure for efficiency as essential to innovation, and a further 57% considered it very important. Authorities that report that they are innovating a great deal are considerably more likely to report experiencing a pressure for efficiency.

3.1.3 Pressures for improved service quality

Every central government department and local authority is seeking to improve quality of service delivery, often under the pressure of externally-applied performance targets (e.g. HM Treasury’s use of Public Service Agreements within the context of comprehensive spending reviews).

The use of targets to derive “league tables” (for example, of hospitals, schools and universities) can encourage the use of innovative approaches in order to force up performance ratings. Targets are, of course, open to the charge of creating perverse incentives, where counterproductive actions may be taken in the interests of satisfying performance criteria which are regarded as simplistic or inappropriate.

Quality improvements may be pursued particularly in areas where performance is considered to be relatively weak: in some local authorities, for example, innovations have been introduced to address declining service usage or delays in processing information, or to plug an identified gap in the services offered by the authorities.⁶

Equally, innovation can be driven by the evolution in a public agency’s understanding of the dynamic within the communities and populations it serves, whether that is the Home Office’s decision to implement community policing or the Department for Children, Schools and Families work with youth clubs and services to ensure a greater proportion of young people is engaged in safe and stimulating activities out of school.

3.2 Barriers to public-sector innovation

These include the following:

3.2.1 Bureaucratic culture

Modern bureaucracies were designed to stop capricious, unpredictable and arbitrary actions. They do this by imposing rules: systematizing, formalizing, specifying how things should be done and ensuring uniformity. Not surprisingly, innovation does not flourish in such an environment.⁷ This applies to local government as well, with tighter prescription of how services should be run and what they should seek to achieve tending to reduce the scope for local experimentation.⁸

3.2.2 Risk aversion

The outcome of innovation, be they in the private or public sector, is inherently uncertain, and some innovations invariably fail to become more widely diffused. A majority of innovations is bypassed or

⁵ Audit Commission, Seeing the light. Innovation in local public services, Local government national report, May 2007

⁶ Audit Commission, Seeing the light. Innovation in local public services, Local government national report, May 2007

⁷ Geoff Mulgan, Ready or not? Taking innovation in the public sector seriously, NESTA Provocation 03, April 2007

⁸ Nicola Bacon, Nusrat Faizullah, Geoff Mulgan and Saffron Woodcraft, Transformers. How local areas innovate to address changing social needs. NESTA research report, January 2008

supplanted within a matter of months or years by alternative arrangements or other service providers. In the public sector, this sort of attrition and implied experimentation, bottom up, is more difficult because failures are harder to explain and manage in the glare of public accountability.⁹ The environment in which government operates puts much more weight on discouraging risk-taking by civil servants than it does rewarding it.¹⁰

The Public Accounts Committees, Audit Commission and National Audit Office (NAO) have all reinforced a culture where experimentation is career threatening. All have attempted to address this criticism, with the NAO and the Audit Commission publishing reports on innovation in the public sector.

3.2.3 Heritage and legacy

Public sector organizations are frequently prone to entrenched practices and procedures – that which has worked in the past is seen as good practice and there is frequently an attitude of “if it isn’t broken, don’t fix it”. The systemic impact of innovation and change is often viewed as an unwelcome perturbation to the overall functioning of the organization, and change and new operational methodologies may be discouraged. Similarly, there may also be a tendency to adopt the “not invented here” attitude with an unwillingness to accept novel ideas from outside the immediate organizational peer group, a notion that sits at the heart of some private sector innovations, where one business or group of businesses might adopt and adapt the much more highly evolved practices in use in another sector.¹¹

3.2.4 Pace and scale of change

Many public administrations, for a variety of political and policy reasons¹², have over recent years been subject to a large number of often radical changes. This has led to an environment of shifting targets and the absence of adequate opportunity to reflect upon and assess the consequences of many of the changes that have been introduced. Thus, while political will may be viewed as perhaps the most important driver for innovation and change (see above), the manner, speed and evidence-base for reform can produce its own problems; the systems to which it is applied may become “innovation-fatigued” and resistant to further change.¹³

3.2.5 Absence of a capacity for organizational learning (at all levels)

There may be a lack of structures and mechanisms for the enhancement of organizational learning, often exacerbated by the fact that public sector organisations are large and very complex organisations with stewardship over many and various policies and communities. This problem can operate at all levels from the top of the policy-making hierarchy down to the service delivery level.¹⁴ Agencification is an important response to this perennial challenge, and one that has been pushed hard by the new public management movement.

3.3 Obstacles to learning in the public sector

The capacity of an organisation to innovate is partly determined by its own internal development capabilities and partly by its capacity to adopt and apply knowledge produced elsewhere, that is to learn.¹⁵

⁹ Nicola Bacon, Nusrat Faizullah, Geoff Mulgan and Saffron Woodcraft, Transformers. How local areas innovate to address changing social needs. NESTA research report, January 2008

¹⁰ Geoff Mulgan, Ready or not? Taking innovation in the public sector seriously, NESTA Provocation 03, April 2007

¹¹ Per Koch and Johan Hauknes, Innovation in the Public Sector, Publin Report No. D20, NIFU Step, Oslo, 2005

¹² For example, the introduction of New Public Management approaches

¹³ Per Koch and Johan Hauknes, Innovation in the Public Sector, Publin Report No. D20, NIFU Step, Oslo, 2005

¹⁴ Per Koch and Johan Hauknes, Innovation in the Public Sector, Publin Report No. D20, NIFU Step, Oslo, 2005

¹⁵ OECD, Managing National Innovation Systems, Paris, 1999

Although learning is a normal human phenomenon, academic studies suggest there might be significant obstacles to learning within the process of government and policy making. The most important obstacles are:

- An aversion to failure, exacerbated by the political process which uses failure to score points rather than learn lessons (see also above)
- The presumption of uniformity in public services
- Shared assumptions between civil servants and ministers that command and control is the correct way to exercise power
- Limited evaluation of the impacts, and source of added value, of previous policies and measures
- Lack of time to do anything other than cope with events
- A tradition of secrecy used to stifle feedback and learning
- The dominance of turf wars and negotiations between departments, effectively making end-user performance secondary to other considerations
- The loss of professional integrity and autonomy under the knife of efficiency in policy making, and resistance and protection of vested interests by some professional and intermediary bodies

The barriers have to do with mentalities, tradition and with power by obstructing learning feedback.¹⁶

3.4 Technical innovation in the public sector – public sector research establishments (PSREs)

There are many publicly-funded institutions which undertake technical R&D, broadly analogous in character to that of private companies. The Department for Innovation, Universities and Skills undertakes an annual survey of the knowledge transfer activities of these establishments, where quantitative indicators of innovative activity typical of those used to measure innovation in the private sector (such as numbers of scientific publications, patents applied for and granted, and income generated from licensing agreements and other forms of intellectual property exchange) are collected. The public sector establishments covered by the survey fall into four groups:

- Departmental Research Bodies, i.e. institutions connected to, and funded by, particular Government departments. Defence (with institutions such as the Defence Technology and Science Laboratory and the Meteorological Office) figures prominently here.
- Research Council Institutes – bodies funded by UK Research Councils, the largest contributors being the Medical Research Council and the Biology and Biotechnology Research Council.
- NHS Innovation. Each of the nine UK NHS regions has an innovation ‘hub’ which assists innovators in its region to transfer knowledge and commercialise innovations arising within the region. The NHS is perhaps unusual in the public sector in terms of high levels of activity in both ‘technical’ innovative activity and the area of social innovation.
- Cultural Institutions. This group comprises museums, art galleries and gardens (particularly the Kew and Edinburgh Botanic Gardens).

To illustrate the information collected, Figure 1 shows a summary of the data collected in surveys over the last four years. The indicators shown are those selected by the Treasury as ‘key’ in summarising the innovation outputs of the public bodies.

These indicators are similar to those typically used to summarise the outputs of private-sector R&D, but the profit motive is of course not primary in this case – although public sector bodies are showing increased interest in income generation.

¹⁶ Per Koch and Johan Hauknes, Innovation in the Public Sector, Publin Report No. D20, NIFU Step, Oslo, 2005

Figure 1 Measures of technical innovation - PSREs

| | First annual survey 2003-4 (n=107) | Second annual survey 2004-5 (n=116) | Third annual survey 2005-6 (n=135) | Fourth annual survey 2006-7 (n=138) | Change 2005-6 to 2006-7 |
|---|---|--|---|--|--------------------------------|
| Business representatives on governing bodies | 175 | 214 | 247 | 207 | -16% |
| FTE staff employed in commercialisation offices | 385 | 368 | 513 | 669 | 30% |
| Number of patent applications | 316 | 335 | 290 | 316 | 9% |
| Number of patents granted | 228 | 148 | 193 | 172 | -11% |
| Number of licensing agreements ¹⁷ | 621 | 352 | 286 | 604 | 111% |
| Income from IP licensing | £33m | £46m | £186m | £116m | -38% |
| Number of spin-outs | 69 | 84 | 74 | 101 | 36% |
| Income from business consultancy | £36m | £31m | £26m | £43m | 64% |

3.5 Social, financial and political innovation in the public sector

These are typically less generic and more sector-specific and diverse than innovations in the technical area. Our case-study work provides examples of innovations and indicators of 'social' innovations – for example, in the Health Service, NHS Direct, potentially improving both service quality and efficiency through improved patient access to services and more cost-efficient patient treatments.

In principle, as discussed later, such innovations may have value weights associated with them which enable them to be combined with financial measures of the kind presented in the above table.

Financial innovations may be highly significant organisationally, but are likely to be invisible to the public. Benefits are normally intended to be in terms of efficiency improvements. Payment by results, for example, marked an important change in practice in the NHS, whereby hospitals receive payment according to volumes of activity undertaken rather than receiving a block grant to finance a broadly specified service.

Innovations in the political arena can be extremely significant, but suffer from the problem that they are contentious, there being no consensus regarding the desirability of the changes made, in contrast to improvements in the efficiency of service delivery, which can be expected to be welcomed universally. As an example, we can imagine a government of one political persuasion embarking on a major privatisation programme, a process subsequently reversed by a successor government with a penchant for nationalisation. All highly innovative, but with a net contribution to public welfare of zero, or less. It is probably best to consider political innovations of these sorts as outside our remit.

In time, one might find academics developing the equivalent of Pavitt's segmentation of the private sector into five classes of innovator, as there are clearly several quite strong / different innovation dynamics at work in different public sector realms. Early impressions suggest that these might cluster around: emergent and policy led organisations; rule makers and guardians of those rules and standards; smaller 'professional' and more bespoke service providers; and larger and more routine services.

¹⁷ A new definition of licensing agreements covered excludes the large number of agreements by cultural institutions for licensing copyright images to third parties. Figures for previous years have been amended to incorporate this change.

3.6 The role of the third sector

Not-for-profit organizations, charities and voluntary organizations – the third sector – play a very important role in innovation for a number of reasons: Being agile and flexible, they seem to have a type of creativity and climate for entrepreneurship which is not possible in public organizations. Although one may possibly claim that these organisations are not representative, they nevertheless represent interests that are committed to public causes. In this, they have networks of dedicated people and local chapters which represent potentially powerful resources of human capital and creativity. Also, third sector organisations may have access to additional financial resources and in this way are crucial in the research, evaluation or piloting of the innovation. In Norway, for example, some of the private charitable funds (based on private trust funds) function as “venture capital” for development projects in third sector organisations. This model – based on a venture capital logic - is very promising and might serve as a model for public money.¹⁸

The voluntary and community sector have often been thought of as the source of much local innovation in the UK, especially in the delivery of specialist services for marginalized or vulnerable groups. Greater engagement with the voluntary and community sector has enabled local governments to gain a better understanding of local needs and to use the voluntary sectors’ experience and expertise to meet them. This has also been seen in the growing trend of Councils commissioning certain services to the voluntary and community sector.¹⁹ However, organisations’ innovation activities seem to be driven to a large extent by the behaviour of public authorities. It appears that voluntary and community organisations became less innovative between 1994 and 2006 as a consequence of being able to secure government funding without presenting their activities as innovative.²⁰

4. Implications of literature review and case studies

4.1 Innovation in the public and third sectors

The case studies and literature review together suggest that all three classes of innovation (service, process, organisation) are evident in the public and third sectors, and that there is a broadly consistent set of motives across policy and service domains.

Three types of outcome are sought from public-sector innovation, which are that as a result of innovation the public agency in question has:

- Reached a greater proportion of one’s theoretical maximum population of ‘clients’ (market penetration)
- Arrived at a situation where a larger proportion of one’s ‘clients’ have received a given quality or standard of service (quality)
- Arrived at a situation where the organisation has delivered its quota of a given of service (volume / quality) at a reduced cost to the taxpayer (productivity)

These goals are broadly analogous with the ambitions sought in the private sector.

4.2 Metrification in the public and third sectors

The pilot study suggests that a growing number of departments and public agencies are beginning to manage innovation consciously, and from a strategic perspective.

¹⁸ Per Koch and Johan Hauknes, Innovation in the Public Sector, Publin Report No. D20, NIFU Step, Oslo, 2005

¹⁹ Nicola Bacon, Nusrat Faizullah, Geoff Mulgan and Saffron Woodcraft, Transformers. How local areas innovate to address changing social needs. NESTA research report, January 2008

²⁰ Stephen P. Osborne, Celine Chew and Kate McLaughlin, The Innovative Capacity of Voluntary Organisations: Survey Evidence from a Replication Study, PSP discussion Paper Series No. 0701, January 2007

Metrication of innovation is rather less well advanced, however, and a majority of agencies appear to be still at the stage of project-based activity and troubleshooting

- Until very recently, few government departments and public agencies have monitored and reported on 'departmental' innovation in any consistent or systematic sense, although where major innovations occur these have been widely reported. However, a new Annual Innovation Report (AIR) has been launched this year, under the aegis of DIUS. The report is narrative in character, collecting case-studies about selected innovation-promoting activities and incentives for and barriers to innovation²¹
- Most departments and agencies are monitoring and reporting on several other aspects of performance improvement and reform, most forcibly those involving reporting to HMT, and which are tied to comprehensive spending reviews
- The Audit Commission has conducted a survey of local authorities, in an effort to determine the extent of innovation activities at local level and to examine drivers and barriers to innovation in local government²². However, so far this review has been a one-off exercise

The case studies suggest that, as a result of the need to report innovations to DIUS in the newly launched AIR (or to HM Treasury as part of the value for money review process), agencies are likely to maintain lists of at least some of the development projects in hand or planned, and in some cases agencies have compiled case material on projects and their results.

Moreover, we can expect to find agencies gathering basic data on certain types of innovation input, and in particular data on 'research' expenditure and staffing, reflecting historical requirements to report such data to the Office of Science and Innovation, as it was, as part of the annual review of public expenditure on research and development. This is an additional survey to the annual review of research and knowledge transfer activity at Public Sector Research Establishments, as described earlier.

This view of innovation can be clouded by the many other 'improvement' or 'modernisation' agendas in play in government at any one time, whether that is to do with efficiency or sustainability or equality. Most have some interest in innovation, for example:

- Value for money delivery agreements, which continue the earlier Gershon efficiency improvement programmes, which are reported to and aggregated by HM Treasury, and which while being dominated by cost-saving measures do include certain organisational and service innovations
- Departmental science and innovation strategies, which explain where research, both intramural and extramural, is expected to support departmental priorities. In some cases, these 5-year strategies, which are updated periodically and coordinated by DIUS, do include a brief aside about notable cases where research is expected to bear directly on departmental performance, usually through some form of technological innovation

Measures of innovation do not seem to exist for the third sector. However, academics have conducted surveys to determine the extent of innovation in the third sector. They have classified innovation in voluntary and community organisations along two dimensions: its mode of production (was it a modification of an existing service of the organisation or the growth of a new one) and its market (was it serving an existing client group of the organisation or a new one). This produced a classification of four types of new services – three innovative forms and one of incremental development.²³

²¹ DIUS not only requires agencies to submit an AIR, it also requires all agencies to maintain a departmental science and innovation strategy while monitoring / ensuring the quality and robustness of the science and scientific advice used to inform policy and implementation

²² Audit Commission, *Seeing the light. Innovation in local public services*, May 2007

²³ Stephen P. Osborne, Celine Chew and Kate McLaughlin, *The Innovative Capacity of Voluntary Organisations: Survey Evidence from a Replication Study*, PSP discussion Paper Series No. 0701, January 2007

4.3 Metrication in the private sector

4.3.1 At firm-level

If understanding of public sector innovation is regarded as lagging behind that of private-sector innovation, it is worth considering what has been achieved in terms of metrication of the latter, to gain an impression of what may be achieved regarding metrication of the former. Hence, it seemed appropriate to consider the metrication strategies in use in the private sector, in order to come to a better view on how one might proceed in the second phase of this NESTA innovation index project.

In the private sector, the metrication of innovation is more evolved in certain sectors as compared with others, and in larger and more innovative companies within those sectors.

Monitoring is concerned primarily with the counting of innovation *inputs* and *outputs*, and not *outcomes* and *impacts*. Raw data will be gathered continuously, however they will tend to be reported periodically to line management and in a 'processed' form wherein the aggregate data are turned into performance ratios and presented alongside reference data, where this is available, for a sector and even a group of direct competitors.

Metrics used include

- The absolute number of inputs or outputs in a given time period
- Number as a proportion of sales or other means by which to control for changing size
- Differential between this proportion and the average proportion for sector
- Differential between this proportion and the average proportion for key competitors
- Number as a positive or negative trend
- Differential between this trend and the average for sector
- Differential between this trend and the average for key competitors

It is not clear that businesses concern themselves with the sophisticated metrics evident in the academic literature (research on innovation) or policy monitoring (e.g. The Community Innovation Survey's reporting of national / sectoral data, with indicators such as the percentage of businesses reporting the implementation of organisational innovations in past three years). This is not to suggest that businesses will only consider hard metrics, and in particular money, as no doubt individual businesses or even whole sectors might develop their own acid test or critical indicator, which is believed to provide an intermediate view of innovation management, somewhere between costs and income. The number of chairs sponsored at world-class research universities, the number of major prize winners on one's scientific advisory board or the number of business prizes for innovation secured in the past 12 months are likely to be highly particular indicators, which will be reported directly, without much post-processing, to adjust for scale or to reflect relative performance.

An executive board might expect to see these many and various data reported once or twice a year using a selected group of core indicators (key performance indicators) and possibly along with a presentation of one or more case examples of innovation successes (outcomes). These KPIs, and possibly the case example, might find their way into the company's annual report, for the benefit of shareholders and competitors.

Innovation outcomes tend to be dealt with in a more qualitative fashion, albeit in a manner that is both analytical and data rich, with individual cases being selected to illustrate how an organisation has marshalled its resources to achieve a breakthrough in the market place. These case studies might be given more of an edge through the inclusion of selected statistics on price realisation, sales and profitability and possibly where it can be found additional data on market share, customer testimonials and remarks about competitor responses. These case examples would be scrutinised and challenged with a view to helping an executive reassure itself, drawing on personal experience, that the organisation is matching or bettering its competitors as regards its innovation efforts and results.

Innovation impacts on the maintenance or transformation of a business in its landscape, are not separately tracked, but rather an executive might simply monitor performance in key market segments, in terms of market share, turnover, profitability and so on. The ultimate check is the

organisation's ability to match or better its direct competitors in terms of dividends and growth in balance sheet value.

Figure 2 Generic innovation metrics in use in the private sector

| Innovation phase | Metrics used |
|----------------------------|--|
| Innovation inputs | Annual expenditure on innovation activity (e.g. BERD) Employment of people involved with innovation, in FTEs (e.g. number of scientists and engineers) Capital expenditure Case studies of new joint ventures |
| Innovation outputs | Number of patent registrations Size of patent and licence portfolios Volume of licence income Number of new products and services implemented |
| Innovation outcomes | Volume of sales related to notable innovations Annual measure of productivity growth Case studies of successful innovations |
| Innovation impacts | Commercial performance of business segment |

4.3.2 At sectoral and macro-level

Resource inputs to 'conventional' R&D (expenditure, personnel) and first-order outputs (patents, publications) are relatively well defined and documented. They are not only used at firm-level, but also at national and international level, often with the aim to compare economies. For instance, the OECD regularly publishes the 'Main Science and Technology Indicators', compiling comparative data for the (newly) industrialised countries.

There are also less robustly defined, and more sporadic, counts of inventions and innovations. The most well-known and developed is the Community Innovation Survey (CIS). It is conducted every 4 years by EU member states and allows the monitoring of Europe's progress in the area of innovation.

Another European product is the European Innovation Scoreboard (EIS). The EIS is an instrument developed at the initiative of the European Commission, under the Lisbon Strategy, to evaluate and compare the innovation performance of the EU Member States. It is based on 25 indicators, four of which stem from the Community Innovation Survey.²⁴

There are also, of course, aggregate economic measures of outputs (values of goods and services, by sector) and inputs (capital and labour). From these economists have, for decades, derived estimates of the 'rate of technical change' as measured by the rate at which output has increased for reasons other than growth in the quantities of factor inputs (the 'Solow residual'), essentially a productivity measure. More recently, more attention has been given to estimates of returns to R&D as derived from explicit inclusion of an R&D expenditure variable in the production function.

²⁴ MERIT and Joint Research Centre, European Innovation Scoreboard 2006, Comparative analysis of innovation performance, 2006

5. Towards an index of public sector innovation

5.1 An overview of existing private and public-sector innovation indices

Figure 3 presents an overview of available scoreboards and data sets that are used as a measure of or proxy for innovation, split by public and private sectors and by the triptych of innovation inputs, outputs and outcomes. The columns also include our comments and observations on each data set.

What is clear immediately is that there are quite a number of existing data sets dealing with innovation-related input and output metrics, and which are relevant to one or other of the public and private sectors. There are some evident gaps, with the most obvious being any scoreboards that deals with innovation outcomes, with the ONS' work on multi-factor productivity growth looking most relevant. Elsewhere the issue of outcomes is dealt with through case studies, and these are not always concerned to present impacts (e.g. public sector performance) and are rarely placed in context.

There are some gaps evident too between the public and private sectors. The first is that while there are many public-sector indicators in evidence, there is only one instance where the data set or annual report in question has an explicit remit to address innovation in the public sector, which is the newly-launched DIUS Annual Innovation Report, the first edition of which is likely to be published in later spring 2009. The second 'gap' relates to attempts to quantify innovation within the public sector, in the way that the community innovation survey does for the private sector.

As we have found during our interviews and case-study work, 'innovation' is not a phenomenon that is widely recorded or reported upon in the public sector. This situation appears to be changing now, and there is a plethora of literature related to the issue of public sector change, most of it qualitative case-study material.

Of more relevance to us here, there are several measurement projects that are trying to address the issue of public-sector innovation. The ONS work on the quality aspects relating to productivity growth is notable, as is DIUS' newly launched Annual Innovation Report (AIR) which when it is complete will present a compilation of selected innovations agency by agency, and in a consolidated account for the UK overall. It will include cases of new products, processes or organisational arrangements. This case study material will be of great interest in itself and also rather important for learning more about innovation in the public sector. However, it is of limited value for NESTA's immediate goal of an innovation index in that the accounts will be largely qualitative and will not be placed in a wider context of inputs and outputs. Equally, such descriptive strategies do not help us to understand the impact of innovation on public services performance through time, either at the organisation or sector levels.

Figure 3 Existing innovation metrics in private and public sector

| Innovation level | Private sector | | Public sector | |
|------------------|--|---|--|--|
| | Index / Scoreboard | Comment | Index / Scoreboard | Comment |
| Inputs | BERR R&D Scoreboard | <p>Firm-level index</p> <p>National and international coverage</p> <p>Narrow focus on (i) inputs and (ii) technological inputs to innovation</p> <p>Time series and informed analyses within segments and across borders</p> | DIUS / ONS annual survey of government funded science and technology | <p>Comprehensive coverage of UK departments and NDPBs</p> <p>Covers expenditure, sources of funding, SET employment and primary purpose</p> <p>Some international comparisons on key indicators</p> <p>Agency level data is published, but appears to be becoming more sporadic</p> <p>Data are not ranked</p> <p>Has not been used to present an analysis of public sector innovation</p> |
| Inputs | European Innovation Scoreboard | <p>Country-level comparison of 'innovativeness' across EU and selected global competitors</p> <p>Composite index built on 25 indicators, input and output data</p> <p>Indicators predominantly relate to private sector activity</p> <p>Several indicators relate to preconditions (e.g. education attainment, industrial structure, broadband penetration)</p> | European Innovation Scoreboard | <p>Several indicators deal with public sector activity, including GOVERD and % of firms receiving public support for innovation</p> <p>Borrows / reproduces indicators from other sources (e.g. CIS), which present data at a more disaggregated level</p> <p>Not concerned to present public sector innovation</p> |
| Inputs | DIUS / OECD main science and technology indicators | <p>Includes a selection of key indicators at country level</p> <p>Indicators include for example BERD and R&D expenditure of certain sectors like aerospace</p> <p>Includes some output indicators too, such as triad patents per million population</p> <p>DIUS / ONS organise the data collection and provide the annual returns to the OECD for a majority of the indicators</p> | DIUS / OECD main science and technology indicators | <p>Country-level data and international comparisons</p> <p>Includes a selection of key input indicators for public sector, including GOVERD and HERD</p> <p>Not concerned to present public sector innovation</p> |
| Outputs | No equivalent | - | DIUS annual review of performance | Bibliometric data used to determine quality and |

| Innovation level | Private sector | | Public sector | |
|------------------|---------------------------------------|--|---|--|
| | Index / Scoreboard | Comment | Index / Scoreboard | Comment |
| | | | of UK science base | <p>impact of public expenditure on R&D</p> <p>Focuses on scientific fields rather than research funders or research performers specifically</p> <p>Annual report with some indexing</p> <p>Not concerned to present public sector innovation</p> |
| Outputs | No equivalent | - | DIUS / RCUK annual report on research council outputs and economic impact | <p>Covers seven grant-awarding research councils and (DIUS-sponsored) learned societies (e.g. RS)</p> <p>Includes statistics on scientific inputs and outputs and quality</p> <p>Includes qualitative case studies of economic impact</p> <p>In second year, and indicators / indices still being developed</p> <p>Not concerned to present public sector innovation</p> |
| Outputs | BERR / EU Community Innovation Survey | <p>Provides aggregate quantitative data by country and sector for a range of indicators associated with innovation, from inputs to outputs to framework conditions</p> <p>Uniquely it includes statistics that purport to measure innovation directly</p> <p>Results are used in EIS as a basis for international comparisons and indexing</p> | DIUS cross-departmental Annual Innovation Report | <p>Comprehensive account of government department and agency-level innovation activities, outputs and outcomes</p> <p>Case study based, working within standard reporting framework</p> <p>Predominantly narrative based, qualitative not quantitative</p> <p>First iteration in autumn 2008</p> <p>Expressly concerned with innovation in the public sector</p> |
| Outputs | No exact equivalent | Eurostat publish EU-wide statistics each year at country and regional level on for example European Patent Office applications per million population | DIUS PSRE annual survey of knowledge transfer | <p>Agency-level data and analyses</p> <p>Comprehensive coverage of all UK public agencies engaged in research, development and knowledge transfer</p> <p>Input data on people and expenditure, in</p> |

| Innovation level | Private sector | | Public sector | |
|------------------|--|---|---|--|
| | Index / Scoreboard | Comment | Index / Scoreboard | Comment |
| | | | | <p>comparison</p> <p>Time series data</p> <p>Not used to produce ranked list / scoreboard</p> <p>Not concerned to present public sector innovation</p> |
| Outcomes | <p>Multi-factor productivity ('Solow residual')</p> <p>'Solow residual' can be interpreted as 'technological progress. Represents the change in national income that cannot be explained by changes in the level of inputs (capital and labour). But in practice it also captures a number of other effects including improvements in management techniques and processes, improvements in the skill level of the workforce not captured by the quality adjustment of labour, and returns from intangibles such as research and development (R&D) knowledge or organisational know-how. The MFP term will also include the contributions of omitted inputs over and above their cost of purchase (such as energy, materials and services), adjustment costs, economies of scale, cyclical effects, inefficiencies and errors in the measurement of output.</p> | <p>No official data set is published, however ONS staff to publish analyses from time to time based on time series data from national accounts</p> <p>The most recent ONS analysis presents data for the period 1997 to 2006, covering six clusters of economic sectors in UK, one of which is all aspects of the public sector (Peter Goodridge, ONS, January 2008)</p> <p>The analyses can be presented in a highly visual manner, to reveal the composition of average output growth 'including the Solow residual'</p> <p>Causality a problem. Reciprocal, endogenous influence between capital formation and technological progress not taken into account</p> | <p>Multi-factor productivity ('Solow residual')</p> | <p>The growth analyses by ONS, cited opposite, do present some aggregate data on public-sector performance which shows multi-factor productivity growth was negative in the period 2001 – 2006</p> <p>Additionally, the Office of National Statistics (through CEGMA, set up following the Atkinson Review) is trying to improve the measurement of productivity growth in the public sector, and in particular taking account of quality issues too</p> |

5.2 A review of the possible options for public-sector innovation indices

Based on our literature review, the case studies and our knowledge of innovation data sets, we have proposed three possible options for NESTA to consider with regard to its ambition to develop a public-sector innovation index (Figure 4). The table presents our assessment of the strengths and weaknesses for each of the three options, and in the final column offers a conclusion as regards the potential value in NESTA looking to develop and further evaluate a given option in the second phase of the Innovation Index Project.

In conclusion, we have taken the view that NESTA should move forward with work to pilot a Public Sector Innovation Scoreboard, based on a voluntary survey, using the Community Innovation Survey as a starting point, and implemented with a view to its being adopted by DIUS within two or three iterations as a complement to its AIR project.

We also take the view that NESTA might reasonably explore the ease with which a credible and useful index might be developed out of the existing DIUS / ONS departmental survey of R&D, as well as exploring partners' willingness, within the demise of the OECD working group, to develop and trial an international scoreboard in say health and education.

On the third option, we concluded that NESTA should not seek to progress this work but rather support and monitor the earlier and substantial commitment of the ONS.

The Korean Government Innovation Index

The Korean government developed the Government Innovation Index (GII) in 2005 to measure the level of innovation in government organisations. The GII also allows government organisations to identify key areas of strengths and weaknesses.

The GII is divided into an 'innovation activation' part, which diagnoses the current level of innovation in a public organisation, and a 'results of innovation' part. It looks at various areas such as leadership, vision and strategies, personnel capacity and the adoption and implementation of innovation, to determine how well an organisation innovates amidst changing environments. It is a weighted average of many sub-indices.

The GII is applicable to all types of government organisations. Its measurement is performed via the internet. It is based on factual data collected from departments rather than subjective assessments. Unfortunately, the list of indicators used is not publicly available.

Figure 4 Options for public-sector innovation index

| | Attractiveness | Feasibility | Overall |
|--|--|---|--|
| UK government R&D Scoreboard | <p>Familiar indicator, which is easy to compile and present at departmental and agency levels</p> <p>Good fit with DIUS cross-departmental responsibilities</p> <p>Somewhat narrow, by definition, in that it focuses on inputs that are concerned primarily but not exclusively with technological innovation</p> <p>Meaningful to just a small proportion of predominantly national public bodies with a technical remit</p> <p>Cross-agency comparability is problematic as public bodies tend to be monopolies, and a comparison of the performance of education against justice or defence is not obviously instructive</p> <p>The preparation of time series and the clustering of certain groups of public bodies, should improve utility</p> <p>The preparation of international comparisons – by department or agency – would be of great of interest</p> | <p>It would be reasonably straightforward to move from disaggregated data to something closer to an index, using clusters and time series</p> <p>It would not involve excessive additional cost, as it would make use of existing annual survey and data that ONS / DIUS has been collecting for many years and which most departments and NDPBs are familiar with</p> <p>An international data set would be more challenging, in that it would require substantial additional work as well as the wider support of other non-UK governments and public bodies. It could tap into the OECD work in the area</p> | <p>A convenient and familiar data set, selective indexing has to be worth NESTA exploring further, as does the notion of selected international comparisons at the agency level</p> |
| UK government innovation scoreboard | <p>An innovation scoreboard would present / index direct measures of public-sector innovation, and in that sense would be wholly new</p> <p>The scoreboard or index could cover inputs, activities and outputs, and possibly a limited number of generic pre-conditions and outcomes</p> <p>There is a precedent in the shape of the Community Innovation Survey, which</p> | <p>A government wide, voluntary survey would be eminently feasible</p> <p>Relatively quick and cheap to launch, could be web-based like the Korean Government Innovation Index</p> <p>Relatively flexible, in terms of the evolution in the scope of questions and extent of the survey</p> <p>DIUS's prior experience of CIS (especially in</p> | <p>We suggest NESTA explore the possibility of implementing a voluntary survey, possibly on a narrower scale in the pilot, but with the ambition for it to evolve in time to become part of the AIR. That is, once the scoreboard, interpretation and data collection have settled, they should move from voluntary and partial to mandatory and comprehensive</p> |

| | | | |
|---|---|--|---|
| | <p>provides useful experience as regards the nature of the questions that might be asked</p> | <p>services) provides questions of provenance and possible insight around interpretation and calibration</p> <p>On the downside, a voluntary survey might struggle somewhat with response rates and representativeness and of course there is the potential for response bias</p> <p>A semi-quantitative innovation survey will tend to deal less well with outcomes or impacts</p> <p>Could be coordinated with the existing Annual Innovation Report (AIR), as it is complementary to the existing AIR</p> | |
| <p>Multi-factor productivity index for the public sector</p> | <p>Singular number with which to compare segments of the public estate, which would lend itself to strategic monitoring</p> <p>Objective and independent in its collection and reporting</p> <p>This is a complex technique that is subject to several important assumptions, e.g. about the links with quality, and there is a question mark over the availability of relevant and adequate data</p> <p>There is also continuing controversy in academic circles over the extent to which MFP / TFP is a good proxy for innovation</p> | <p>ONS / CEGMA produce MFP analyses from time to time and for selected areas of public services, and have the lead in further developing this technique and index</p> | <p>NESTA should continue to monitor the work and outputs of ONS / CEGMA in this area, cross-referencing to their efforts to directly measure innovation</p> |

5.3 A possible way forward

In this section, we develop our thoughts on the proposed Public Sector Innovation Scoreboard.

We suggest the Public Innovation Scoreboard (PIS) should be based on an annual voluntary survey of government departments and NDPBs, which parallels the Community Innovation Survey inasmuch as it would seek to gather quantitative and semi-quantitative data on innovation inputs and outputs as well as preconditions and drivers and barriers.

The taxonomies will no doubt need to be worked on, to adapt them to cope with the particularities of innovation in the public sector (e.g. policy-led 'motives' or social objectives or public value / principles, etc.) and the creation of an advisory group comprising users and experts might be a helpful accompaniment.

On balance, we recommend NESTA consider each of the following as possible principles around which to organise the pilot survey and scoreboard

- Indicators should be developed and piloted in spring with a view to running the survey in the early summer ready for publication / deliberation of meaning / utility / appropriateness of the resulting index in autumn 2009
- Standard indicator-development methodology should be used, which will impose some important principles (e.g. validity, reliability, availability, credibility, economy, etc), so for example 20 indicators might be preferable to 40. Should consist of input, output and if possible generic outcome indicators as well as indicators measuring the capacity to innovate ('pre-conditions') and barriers and drivers, to give a balanced picture of public-sector innovation. Should employ a mixture of both objective and subjective measures, to boost validity and reliability. Must not be too costly to implement for GDs / NDPBs, so will need to be developed in partnership with volunteer agencies
- The survey should focus on four or five GDs and four or five NDPBs in the first round, inviting volunteers from amongst those departments and agencies that are already committed to doing more on this front with internal project teams and senior management support (e.g. DH and HO migrant agency). The AIR returns will be a valuable source of targeting, from this perspective
- The scoreboard and survey needs to be scalable: service delivery innovation index, local government innovation index, central government innovation index, English government innovation index etc.
- DIUS is the most appropriate lead agency and should seek to dovetail the innovation survey with its work on the AIR

Possible indicators

In Figure 5, we suggest a list of 15 indicators that might make up a reasonably valid index. The table lists generic metrics that are closely linked to the theory and practice of innovation in the public sector and are able to transcend its diversity. We recommend the list as a platform for further discussion and market testing in the pilot phase of index design.

The indicators suggested are quantitative (interval-scaled or dummies), a necessary condition for constructing an index. As a general rule, the construction of an index is only admissible if the correlation between the different indicators is positive and if the correlations between the indicators and the dependant variable (public-sector innovation in this case) are always either positive or negative. Theoretically, this is the case here. However, there is an uncertainty as to a reliable means by which to weight / combine several different classes of data. Attention would need to be given to the indexing of the metrics, to arrive at meaningful gradations of performance (possibly including minimum standards), adjust for structural differences as well as external factors. Perhaps most importantly, the financial / policy implications of an organisation's standing within any such index (league table) would need careful explanation. Hence, it is essential that aggregation of indicators (including weighting) be thoroughly tested in the pilot phase.

The results produced in the pilot phase might have to be developed over two or three iterations, in line with experience and the extension of the index to a greater number of agencies, all the more so as

there is a question mark over calibration and interpretation of results for different clusters / segments of public bodies, national, regional and local, policy or delivery.

Survey details / coordination with AIR

The survey can be either web-based or postal. We would recommend a web-based survey (e.g. with the survey software Survey Monkey), as it is easier to launch and more cost-effective.

There is also the possibility of coordinating the survey with the Annual Innovation Report (AIR). In addition to selected cases of innovation, public bodies could also provide the quantitative information suggested below. Triangulation of qualitative and quantitative data is a good way to achieve a more balanced picture of a phenomenon – in this case innovation in the public sector. In our opinion, coordinating the public-sector innovation survey with the AIR would be a very reasonable option, as it would reduce the number of questionnaires and forms for public bodies to fill in while boosting response rates. DIUS would need to be approached by NESTA to sound out this option.

Estimated costs

We estimate that the central cost for running a public-sector innovation survey would be between £0.25M - £0.5M depending on the scope of the pilot and its development, the number of analyses, and level of cross-checking and auditing to get to appropriate confidence levels. The costs to the agencies involved in the pilot might run to two person years of effort, to include contributions to advisory groups, and maybe £50K to £100K for commissioned services. So, the development and implementation of the pilot survey and partial index might take approximately 12 calendar months and cost perhaps £1.5 million in cash terms and an additional 20 person years of effort with DIUS and the 10 volunteers. A steady state, fully operational service reaching across the whole of government might cost 3-5 times this amount annually. For comparison, the narrower but deeper Research Assessment Exercise (2008) is expected to cost on the order of £12 million in cash terms for the central HEFCE-run administration, and at least £50 million for the HEIs preparing their submissions, or around £15 million a year (HEFCE estimates the annual cost of peer review, proposing and appraising, at around £200 million a year).

Figure 5 Indicators for public-service innovation indicator

| Innovation stage | Definition | Innovation relevance | Source of data | Comments |
|---|---|--|----------------|--|
| Precondition - Strategic engagement | Existence of a innovation strategy | Research shows that high-level commitment to considering new ideas and awareness of the potential of innovation is conducive to innovation. | Survey | Indicator relies on factual data. Question easy to answer. |
| Precondition - Implementation structures / resources | Existence of a innovation unit | A vast bureaucracy has grown up around performance management, inspection and audit. Public-sector innovation rarely has equivalent posts or budgets. The existence of an innovation unit shows a commitment to innovation and to spending resources on innovation. | Survey | Indicator relies on factual data. Question easy to answer. |
| Precondition - Implementation structures / resources | Existence of an innovation monitoring and reporting system | Research shows that an organisation that scans its environment to identify trends, opportunities and anomalies is more innovative than an organisation that does not. Scanning mechanisms refer to awareness of other public organisations' actions (also abroad) and customer preference and needs. | Survey | Indicator relies on factual data. Question easy to answer. |
| Precondition – absorptive capacity | Number of professionals (% of total staff) | Not only innovating itself but also the adoption (and adaptation) of an innovation requires a certain level of knowledge. | Survey | Indicator relies on factual data. |
| Input | Annual expenditure on innovation activity (e.g. R&D expenditure or expenditure for innovative projects) | Research shows that it is not availability of finance to innovate per se which is essential but money earmarked for developing innovative projects that is key. | Survey | Typical input indicator. Indicator relies on factual data. Also captures innovative procurement. |
| Input | Employment of people involved in innovation, in FTE (e.g. % of scientists and engineers) | The hypothesis is that the higher the number of people involved in innovation, the more innovative the organisation is. | Survey | Typical input indicator. Indicator relies on factual data |

| | | | | |
|----------------|--|---|--------|--|
| Input | Annual capital expenditures | Embodied technological progress (e.g. ICT) | Survey | Indicator relies on factual data. Also captures procurement. |
| Output | Number of new services / products introduced | Direct measurement of product/service innovation. | Survey | Can be differentiated into: new to the organization, new to the sector (e.g. health or adult social care), new to the UK, see CIS. This allows an analysis of the diffusion and adoption of innovations. One problem of the indicator is that it may not be clear for respondents what is meant by 'innovation'. The CIS encounters similar problems. It counteracts them by clearly defining what is meant by 'product innovation', 'process innovation' etc. However, this still leads room for a certain subjectivity. |
| Output | Number of new processes introduced | Direct measurement of process innovation | Survey | Can be differentiated into: new to the organization, new to the sector, new to the UK, see CIS. This allows an analysis of the diffusion and adoption of innovations. One problem of the indicator is that it may not be clear for respondents what is meant by 'innovation'. The CIS encounters similar problems. It counteracts them by clearly defining what is meant by 'product innovation', 'process innovation' etc. However, this still leads room for a certain subjectivity. |
| Output | Number of organizational models introduced | Direct measurement of organizational innovation | Survey | Can be differentiated into: new to the organization, new to the sector, new to the UK, see CIS. This allows an analysis of the diffusion and adoption of innovations. One problem of the indicator is that it may not be quite clear for respondents what is meant by 'innovation'. The CIS encounters similar problems. It counteracts them by clearly defining what is meant by 'product innovation', 'process innovation' etc. However, this still leads room for a certain subjectivity. |
| Outcome | % of all clients that have gained access to a new or | Impact of an innovation | Survey | |

| | | | | |
|----------------|--|---|--|---|
| | improved service | | | |
| Outcome | (increase in) % of clients indicating (high) satisfaction with service quality | Impact of an innovation. An increase in satisfaction would indicate a new or improved service (or a choice of services) resulting from an innovation. | Survey | Customer satisfaction surveys exist in most areas of public service |
| Context | Mission | | General Information section of survey. Analogous to socio-demographic questions in survey of individuals or General Business Information section in CIS questionnaire. | Also available from statutory annual report. Necessary for analysis, not construction of index. |
| Context | Number of staff | | General Information section of survey. Analogous to socio-demographic questions in survey of individuals or General Business Information section in CIS questionnaire. | Also available from statutory annual report. Necessary for analysis, not construction of index. |
| Context | Budget | | General Information section of survey. Analogous to socio-demographic questions in survey of individuals or General Business Information section in CIS questionnaire. | Also available from statutory annual report. Necessary for analysis, not construction of index. |

5.3.1 Compliance with overall index objectives

- i) Be complete (on its own terms) by 2010, with a meaningful interim deliverable in 2009.

We have opted for the Public-Service Innovation Survey because its realistic for it to be complete by 2010, with a meaningful interim deliverable next year.

- ii) Contain clear insights for the main innovation actors in the UK

The Community Innovation Survey is widely referred to and used by senior economic policy makers and other actors across Europe. Based on this experience, we estimate that a similar survey for the public sector would be of great interest to those responsible for the delivery of public services in Whitehall and the devolved administrations as well as leaders of institutions that play a role in the UK's ecology of innovation, such as senior economic policy makers, educators, skills bodies, regulators. We expect it to be of less interest to those responsible for regional economic development across the UK.

- iii) Account for 'hidden innovation', open innovation, user-led innovation, absorptive capacity and innovation in public services.

The Public-Service Innovation Survey measures innovation in the public services directly. It also includes an indicator capturing the absorptive capacity of a public organisation.

- iv) As far as practicable, be comparable across similar sectors across different countries

The Public-Service Innovation Survey would need to diffuse across Europe, for the index to be comparable across similar sectors across different countries. Since most European countries take part in the Community Innovation Survey, we expect that a good CIS-style survey would have a realistic chance of being adopted in other European countries.

- v) Produce a series of outputs that are accessible to the media and policymakers

The Public-Service Innovation Survey has the advantage of not only producing an index but also of possessing easily accessible single indicators, such as the number of new services introduced. While the aggregation of the index would need to be explained to the media and policy makers, the single indicators can easily be communicated. Moreover, the Public-Service Innovation Survey allows to answer questions like: are organisations with large budgets more innovative than organisations with small ones. Such questions could be of interest to policy makers.

- vi) Form a framework for a systematic body of work on innovation measurement and recommendations for the improvement of underlying statistics

We believe that a survey based on pre-conditions, input indicators, output and outcome measures form a reasonably systematic body of work on innovation measures.

Appendix A

National Health Service

Innovation in the Health Service can broadly be divided into technical, R&D-based innovation, service delivery innovation, and financial innovations. These aspects of health innovation, which are often interlinked and synergistic, are discussed in turn below. Outputs may be measurable, and outcomes comparable in terms of categories of efficiency and improvements in quality of patient care, which are briefly discussed. A lot of work has also been done on the measurement of productivity and output in the health sector, which is discussed in the final section of this Appendix.

A.1. Technical Innovation in Health

Technical innovations in the health sector range from:

- New pharmaceuticals, typically requiring years of development of trialling and testing, and involving multinational companies. The industry is renowned for its high level of R&D intensity.
- Medical devices and equipment, covering all areas of clinical practice and involving both large firms and SMEs
- New methods of diagnosis and treatment, often resulting from basic biomedical research.

The Medical Research Council finances over forty research institutes, covering a wide range of areas of medical research, many of them at the basic end of the research spectrum. Institutes reflecting recent novel advances in medical approaches include the Centre for Stem Cell Biology and Medicine and the Centre for Stem Cell Research.

Some four years ago, the Departments of Health and Trade and Industry established NHS Innovations, with the creation of a network of nine regionally-based Innovation Hubs, designed to facilitate the exploitation and commercialisation of innovative ideas by NHS staff²⁵. The Hubs provide a service for assessing and promoting innovations submitted, and handling intellectual property issues on behalf of the participating staff.

Major categories of innovation undertaken by the Hubs are:

- Medical diagnostics
- ICT and software
- Publications
- Therapeutics and drugs delivery
- Medical devices and equipment

²⁵ NHS Innovations, 'Delivering the Innovation Agenda 2006-2007', mimeo.

A.2. Social and organisational health innovation

A number of 'organisational' health sector innovations have been introduced in the last decade or so. NHS Direct, for example, provides a telephone-based service for callers who describe symptoms and are advised on appropriate action, such as self-care, visit to a GP, attendance at A&E or referral to the 999 service. As with other changes in organisation of patient contact, significant IT innovations can be involved.

The service cost about £230m to set up. The cost per call is £18 which is the same as it costs for a GP to see a patient face to face. Up to 70% of calls require referral to either a GP or A&E department and 999 calls have doubled in some areas since introduction of the service. The service has been shown to reduce the impact on GP out of hours services, ambulance services and A&E attendance. Some NHS Ambulance trusts use the service to deal with Category C (Non-emergency) cases. NHS Walk-In Centres provide a comparable service on a face-to-face basis.

These and other service innovations have, at least in principle, outcomes affecting the quantity and quality of patient service, and the overall efficiency of the NHS.

A.3. Financial innovation

A.3.1. Payment by Results

The NHS Plan (July 2000) introduced the Government's intention to link the allocation of funds to hospitals to the activity they undertake. Historically, hospitals have been paid according to "block contracts" – a fixed sum of money for a broadly specified service – which provided no incentive for providers to increase throughput, since they got no additional funding.

Under the new system, hospitals would be paid for the elective activity they undertake, a system of payment by results. This new financial system offers incentives to reward performance, to support sustainable reductions in waiting times for patients and to make the best use of available capacity.

The Audit Commission has concluded that following the introduction of Payment by Results, most hospitals have improved their financial management and have a better understanding of how much it costs to treat patients. There are some indications that the NHS is providing care more efficiently, such as an increase in the number of patients treated as day cases and a reduction in the number of avoidable hospital admissions. However, the Audit Commission has concluded that greater efficiency is not yet widespread across the health service.

A.3.2. Cooksey Reforms

In 2006, the government commissioned an independent review to advise on the organisation of public funding of health research in the UK. The ensuing report found that the current system has many strengths, with the quality of the health research base, together with the NHS, attracting R&D investment from the biotechnological and pharmaceutical industries, which form a major part of the UK knowledge economy. However, the UK was felt to be at risk of not fully exploiting the economic, health and social benefits from publicly funded research. There was found to be no overarching UK health research strategy, and two 'key gaps' in the translation of health research were identified: translating ideas from basic and clinical research into the development of new products and approaches to treatment of disease and illness; and implementing those new products and approaches into clinical practice²⁶. The Review recommended that the government should seek to achieve better coordination of health research, and more coherent funding arrangements to support translation, by establishing an Office for the Strategic Coordination of Health Research (OSCHR) - essentially bringing the health research budgets of the MRC and DH together.

A.4. Outputs and Outcomes of Health Sector Innovations

The most obvious 'quantity' output or activity index would relate to numbers of patients treated in various areas of NHS activity, or more generally counts of a large number of separate NHS activities, weighted by a 'unit time' or 'unit cost' for each activity, to allow aggregation. Indices along these lines are well established.

For outcomes, measures of 'success' in terms of positive results from patient treatments are required. Extensive work by the University of York Centre for Health Economics and the National Institute for Economic and Social Research (York/NIESR), commissioned by the Department of Health, has proposed a number of approaches to the issue of healthcare quality.²⁷ The Atkinson Review²⁸ identified a number of quality of healthcare services, as follows:

- Saving lives and extending life span
- Preventing illness and mitigating its impact on the quality of life
- Quality of patient experience
- Speed of access to services

The UK Centre for the Measure of Government Activity (UKCeMGA), set up following the Atkinson Review within the Office of National Statistics, is developing measures of public service inputs and outputs for National Accounts purposes. Important recommendations of the Atkinson Review that the UKCeMGA seeks to implement include:

- Public sector outputs to be treated similarly to private sector outputs in the National Accounts
- Adjustments should be made for quality changes
- Indices for individual components of output should be weighted by *value* rather than *cost* when aggregated.

²⁶ Sir David Cooksey, 'A Review of UK Health Research Funding', December 2006.

²⁷ Dawson et al., 'Developing new Approaches to Measuring NHS Outputs and Productivity', Final Report, September 2005.

²⁸ 'Measurement of Government Output and Productivity for the National Accounts', 2003

It has produced reports in a number of public sector areas, including health²⁹. It considers the main domains of healthcare quality to be the first three items listed above, with speed of access being subsumed within the other areas – quicker access implies better clinical results and a more positive patient experience. In terms of index-related work, UKCeMGA have made progress toward developing quality indices. This ongoing work is outlined below, together with an internal NHS index-construction initiative.

A.5. Measuring Innovation in the Health Sector

The UKCeMGA quality-adjustment approach is based on the treatment of outputs of different quality as separate, distinct outputs.³⁰ The quantity of each such output can be multiplied by a weight (for example, a value measure based on expected survival times from alternative treatments) and the products summed, to give a quality-adjusted output index. An increase in the relative proportion of higher-value treatments will increase the value of the index, whereas a non-adjusted index would depend only on the total number of treatments undertaken, not the balance between treatments of different quality.

The devil, of course, is in the detail. There is a great deal of arbitrariness in the choice of value measures. For example, reductions in mortality clearly represent a welfare gain, which might be measured by the number of years of survival over expectations without treatment or with inferior treatments. Data problems with such a measure would be severe, given the lack of data on the efficacy of different treatments with respect to such a measure. Also, treatment of a young person might constitute ‘more output’ than that of an elderly person with lower expected remaining lifetime, raising serious ethical issues if policy choice was to be influenced.

Arbitrariness exists at all levels – with the high-level issues above, for example, the relative weighting of clinical efficacy against quality of patient experience is contentious. The Department of Health³¹ has given equal weight to ‘health gain’ and to ‘patient experience’, although the general feeling is that the former is more important, a view shared by the ONS, although without any basis in research.³²

In practice, quality adjustments have tended to raise productivity estimates for the health sector, although these still suggest that productivity has declined (at least between 1999 and 2004).

‘Productivity’, of course, is not ‘innovation’. The NHS National Innovation Centre (NIC) is undertaking a project on innovation measurement, focusing on metrics of adoption of innovation – or, more specifically, barriers to it. These include such issues as lack of R&D funding and allocation of staff time for discussion/development of innovative ideas, either for hardware such as new or modified devices or for organisational changes. A desire for patient satisfaction and cost savings are the main drivers, and the possibility of correlating a hospital ‘innovation rating’ with customer satisfaction surveys is of interest. Discussions are being held with a number of health care organisations.

In connection with this activity, the NIC has commissioned external work to address the following: ‘What are the most appropriate metrics to be used to identify whether the NHS (and organisations within it) are getting better at the adoption of technological and service delivery innovations?’. This project, currently at an early stage, will clearly be of great interest for the NESTA public sector indexing work.

²⁹ ‘Measuring Quality as part of Public Service Output’, Office of National Statistics., July 2007.

³⁰ E.g. Weale, M.: ‘Following the Atkinson Review: the Quality of Public Sector Output’, Economic & Labour Market Review, 1, 7, July 2007.

³¹ Department of Health ‘Accounting for Quality Change’, 2005

³² Measuring Quality as Part of Public Sector Output’, op. cit.

Appendix B

Adult Social Care

B.1. Adult social care in the UK

The modern term used for social services is adult social care. Adult social care deals with old people, people with learning difficulties, people with physical disabilities, people with mental health problems, support for carers, HIV/AIDS, prisoners' (mental) health, care consequences of homeless people as well as care aspects of the chronically ill.

1.4 million people are employed in adult social care. 150 councils commission and provide services, and there are around 30,000 other registered provider organisations. The organisations are a very heterogeneous sector, with the large majority for-profit organisations and around 15% voluntary and not-for-profit organisations. The private and the third-sector companies have more or less the same work force. Councils commission services from organisations but only for a minority of people (with low means and higher needs). 60% of people pay full costs for social care.

B.2. Drivers underpinning change and innovation in adult social care

Not only in the UK, but across Western Europe as a whole a number of issues are shaping the way in which social care is formulated, delivered and assessed. In essence these drivers of social care policy fall into two main groups: a) those that derive from changes in the characteristics and demands of the population itself and b) those that represent managerial responses in order to deal with such changes and demands.

These drivers therefore underpin many of the changes and innovations encountered across the social care systems of Europe. The most significant include³³

- Demographics
- Decrease in institutional care and gradual introduction of alternative social care, in particular personalization of social care
- Client empowerment
- Diversification of services providers and
- Introduction of New Public Management techniques in the public sector.

B.3. Types of innovation in social care

Innovation is a recognised concept in adult social care. For example, there is a debate going on about the effects of commissioning and whether councils over-specify and hence stifle innovation when commissioning care. One example would be home care, where every activity is closely specified.

Areas of innovation in social care are

³³ Ludmila Malikova and Katarina Staronová, Innovation in the social sector – case study analysis, Publin Report No. D18, NIFU Step, Oslo, 2005

- System innovation: one example would be direct payments for disabled people, so-called individual budgets with which disabled people can buy the services they need. Individual budgets were pressed for by disabled people themselves.
- Conceptual innovations: an example would be the reorientation from social care for the poor and needy to social care for the whole population (if and when they need it). As a consequence, councils are shaping a market for social care and are ensure sufficiency of supply, as they do with childcare. Another example would be a transition from a 'deficit model of disability' to a 'social model of disability'.
- New or improved services: an example resulting from the shift from a deficit model of disability to a social model of disability would be providing access for everybody by adapting services.
- New or improved processes: for example new approaches to multi-agency co-operation
- Technological innovation, for example telecare, remote moving monitoring or smart houses and smart fridges. IT can also simplify users' ability to purchase services online and rate providers. Technological innovation can also improve authorities' data management and record storage.
- User-led innovation, for example the National Centre for Independent Living or Social Networking sites to share experiences and rate providers.

B.4. Issues in adult social care

B.4.1. The role of the private and third sectors

One challenge facing innovation is that private suppliers dominate the adult social care sector. They are tempted to continue to offer the same traditional – and lucrative – services rather than to innovate. Consumers find it hard to push for innovations, e.g. tailor-made home-based care rather than a nursery home, because they are in a situation of crisis. Likewise, councils find it hard to press for innovations, as their purchasing power is weak, compared to the power private providers, especially large ones, have.

Hence, there is a role in innovation for voluntary organisations. The voluntary sector has come up with important innovations in the past, for example with regard to children's services. Most of the radical innovations come from this sector, for example the 'social model of disability' and the idea of providing an ordinary life for disabled people. Another example would be time banks where people participants 'deposit' their time in the bank by giving practical help and support to others and are able to 'withdraw' their time when they need something done themselves.

B.4.2. Policy environment

However, rather than being an inherent consequence of the organisational structure or culture of third-sector organisations, the action and policy context created by central and local government encourages innovative activity (see the earlier discussion of drivers). It appears that voluntary and community organisations became less innovative between 1994 and 2006 as a consequence of being able to secure government funding without presenting their activities as innovative.³⁴

³⁴ Stephen P. Osborne, Celine Chew and Kate McLaughlin, *The Innovative Capacity of Voluntary Organisations: Survey Evidence from a Replication Study*, PSP discussion Paper Series No. 0701, January 2007

B.4.3. Diffusion of innovation

The diffusion of innovations tends to be a problem³⁵. One reason might be the ‘not invented here’ syndrome. Another – and more important one - is financial: typically, a large part (approx. 80%) of budgets are tied up in existing services. There is scope for innovation at the margins only. Radical innovations, for example the introduction of a home-based care system, requires major organisational changes and rearrangements.

B.4.4. The human factor

Innovation involves pressure groups’ politics and needs to overcome resistance to change at all levels of the organization. A study³⁶ focusing on driving and hindering forces indicated that people are the major ‘factor’ that affects innovation, rather than non-human, external forces. People who support the innovation idea seem willing to take the extra effort. Those who oppose it are likely to raise obstacles and barriers.

B.5. Measurement of innovation in adult social care

So far there have been no attempts to measure innovation in the adult social care sector. On the contrary, since it is a strongly regulated sector with licences to trade, it operates with minimum national standards which are the benchmark for commissioning services. The standards act as a barrier rather than a driver for innovation. There is no outcome approach in the measurement of social care either.

However, there are satisfaction surveys and data about unmet needs, and innovation is stimulated in areas of unmet needs. From a user-lead perspective, two important criteria for good-quality adult social care would be that people feel in control of what they need and have choices in social care.

B.6. Possible indicators

Below we present indicators that might be used to measure innovation in adult social care and discuss their validity. The indicators would feed into the (service) innovation index.

B.6.1. At the client level

- Satisfaction ratings: an increase in satisfaction would indicate a new or improved service (or a choice of services) resulting from an innovation.
- Unmet needs: a decrease in unmet needs would indicate a new (or possibly improved) service resulting from an innovation

Indicators at the client level have the advantage of capturing innovations generated by the public, the private and the third sector. However, they do not capture innovation directly; rather they rely on the hypothesis that innovation leads to increases in satisfaction and/or decreases in unmet needs.

B.6.2. At the council level

- Innovation activity of local authorities in adult social care: a survey conducted by the Audit Commission of all local councils and fire authorities found that 43% of respondents reported that ‘a great deal’ of innovation was taking place in their organisation, and a somewhat higher proportion (52%) said ‘some’ innovation was

³⁵Nicola Bacon, Nusrat Faizullah, Geoff Mulgan and Saffron Woodcraft, Transformers. How local areas innovate to address changing social needs. NESTA research report, January 2008; Geoff Mulgan, Rushanara Ali, Richard Halkett and Ben Sanders, In and out of sync. The challenge of growing social innovations, NESTA Research report, September 2007

³⁶Ludmila Malikova and Katarina Staronová, Innovation in the social sector – case study analysis, Publin Report No. D18, NIFU Step, Oslo, 2005

taking place.³⁷ A similar survey could be conducted for adult social care only. One problem of such an indicator is that it may not be quite clear for respondents what is meant by 'innovation'.³⁸ One possibility would be to specify what is meant by innovation and use and possibly adapt the four indicators developed by Osborne et al.³⁹ for their survey of voluntary and community organisations.⁴⁰

- Diffusion of successful local models: adoption and adaptation of an innovation produced elsewhere, i.e. by another council. Similar concerns as articulated above apply.
- Resources set apart for innovation projects: availability of funding and finance to innovate does not appear to be as crucial as widely believed in the context of innovation in the public sector.⁴¹ Rather, the critical issue is to have the 'right kind of money', that is money earmarked for developing new ideas and promoting their practical development.⁴² This indicator tests the availability of the 'right kind of money'.
- Characteristics of an innovative public organisation: if we want to assess the capacity of an organisation to innovate, we can ask whether organisations exhibit the characteristics of an innovative organisation. Organisational structure and culture does not appear to be a sufficient condition for innovation, as the policy environment plays a crucial role in driving innovation. But it is still a necessary one.

These indicators do not capture innovations produced in the private or the third sectors.

³⁷ Audit Commission, *Seeing the light. Innovation in local public services*, Local government national report, May 2007

³⁸ The Community Innovation Survey which asks firms about their innovation activities encounters similar problems. It counteracts them by clearly defining what is meant by 'product innovation', 'process innovation' etc. However, this still leads room for a certain subjectivity

³⁹ Stephen P. Osborne, Celine Chew and Kate McLaughlin, *The Innovative Capacity of Voluntary Organisations: Survey Evidence from a Replication Study*, PSP discussion Paper Series No. 0701, January 2007

⁴⁰ - Total innovation: involving working with a new client group and providing new services
 - Expansionary innovation: involving working with a new client group, but using the existing services/methods of work of the organization
 - Evolutionary innovation: involving working with the same client group, but providing new services
 - Incremental development: involving working with the same client group and providing the same services, but incrementally improving them

⁴¹ Audit Commission, *Seeing the light. Innovation in local public services*, Local government national report, May 2007

⁴² Nicola Bacon, Nusrat Faizullah, Geoff Mulgan and Saffron Woodcraft, *Transformers. How local areas innovate to address changing social needs*. NESTA research report, January 2008